Safety and Airspace Regulation Group

Flight Operations

UK CAA Standards Document 01(H) Version 4

Guidance of Applicants taking the Initial Instrument Rating Skill Test (Helicopters)

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LIST OF AMENDMENTS

Number	Version	Date	Reason for amendment	List of affected pages
0	4	20/04/2021	Amended as applicant guidance only	All
1	5	01/05/2021	Document layout corrections	All

FOREWORD

This document sets out the guidance for applicants taking the Skill Test for the grant of a UK Instrument Rating (IR) Helicopter. The information will help an applicant prepare for the flight test; however, it should be noted that the information is of a general nature only and does not give precise details of each exercise or manoeuvre.

The Civil Aviation Authority (CAA) is the competent authority of the UK for the issue of pilot licences, ratings, and certificates in accordance with the ANO 2016. Nothing in this document is intended to conflict with UK statute law where applicable. Whilst every effort is made to ensure that all information is correct at the time of publication, the CAA reserves the right to amend this document as required to accommodate changes to the primary authority documents and to correct errors and omissions or to reflect changes in national policy and best practice.

References to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018.

Throughout these notes the following editorial practices and definitions shall apply:

- "Shall" and "Must" are used to indicate a mandatory requirement.
- "Expect" and "Should" are used to indicate strong obligation.
- "May" is used to indicate discretion.
- "Examiner" is used to indicate a person who is authorised by the CAA to conduct the appropriate skill test.
- "Applicant" is used to indicate a person who is seeking the issue or renewal of a pilot's licence or rating.
- A Skill Test is a demonstration of skill for the initial licence issue, licence renewal, rating issue or rating renewal. Such tests include oral examination and flight test as appropriate.
- "Test" is used in this document to describe licensing skill tests and proficiency checks

All amendments to this document will be notified via SkyWise. This document and other CAA Standards Documents are available on the CAA web site www.caa.co.uk/standardsdocuments and can be downloaded to users without charge. The CAA Scheme of Charges and application and report forms are also available from www.caa.co.uk

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PART 1 PREPARATIONS, PROVISION OF HELICOPTERS AND TEST BOOKINGS

1.1 Flight Test Preparation

1.1.1 All sections of the test must be completed within 6 months of the first attempt.

1.1.2 Before a skill test for the issue of a licence, rating or certificate is taken, the applicant shall have passed the required theoretical knowledge examination, except in the case of applicants undergoing a course of integrated flying training. In any case, the theoretical knowledge instruction shall always have been completed before the skill tests are taken, in accordance with FCL.030 (a).

1.1.3 An applicant for the IR Skill Test shall have received instruction on the same type of helicopter to be used for the flight test. Applicants shall not be presented for the test until the syllabus requirements outlined in Part-FCL Appendix 6 for IR training have been met in full.

1.2 Documentation

1.2.1 The following applicant's documentation will be required to be produced on the test day:

(i) Recommendation for Test issued by the ATO
(ii) Completed CPL application form
(iii) Class 1 Medical certificate
(iv) Pilots flying logbook
(v) Training records
(vi) Photographic ID
(vii) Flight Radio Telephony Operator Licence or R/T practical test evidence

(Note: If the medical certificate is out of date the examiner may still conduct the test, however the applicant should be aware that, regardless of the outcome, they will not be issued a licence until the medical certificate is revalidated)

1.2.2 Applicants who have previously attempted the skill test must produce to the examiner the previous test result form, SRG 2135, and form SRG 2129 that indicates the reasons for failure, and the re-training requirement. The applicant will also have evidence of the retraining conducted and have a new Recommendation for Test from the organisation responsible for the training.

1.3 Provision of Helicopter

1.3.1 The applicant or training organisation must provide a suitably equipped helicopter for the skill test capable of conducting all the test elements of the test. The helicopter must have a valid UK certificate of airworthiness, certificate of registration, insurance, radio licence, and weight balance schedule.

1.3.2 Flight tests conducted in aircraft registered outside UK or UK Dependent Territories are subject to both airworthiness and licensing restrictions. If 'valuable consideration' is to be given to the examiner, then the aircraft is subject to ANO 2016 Article 252. Prior to undertaking such a flight, the operator of the foreign registered aircraft will be required to obtain an operating permit (permission). Further information is available at www.caa.co.uk/foreigncarrierpermits or by e-mail to foreigncarrierpermits@caa.co.uk or by telephoning 03301 383484 (office hours only). In addition, before acting as pilot-in-command of a foreign registered aircraft, the examiner will be required to meet all the licensing requirements of the state of registration in accordance with ANO 2016 Art 148. For example, in the case of EASA member state aircraft, a valid EASA pilot licence or validation is required.

1.3.3 The helicopter must be fitted with duplicate primary flying controls for use by the applicant and examiner. Flight, engine and associated ancillary instruments as required by ANO Schedule 4 and 5. Instruments must be readily visible to both the examiner and the applicant. Wheel brakes, undercarriage controls, engine controls, fuel controls and cabin fire extinguishers must be either duplicated or positioned so that they are accessible to both the examiner and applicant.

1.3.4 The aircraft must have appropriately connected headsets that will permit the examiner to monitor all communications during the test and it is suggested that a suitable spare is carried and available if needed. GNSS equipment where fitted, must have the latest software and an up to date map database for use during the skill test.

1.3.5 A stopwatch or other suitable timing device should be provided for use by the applicant. This may be part of the helicopter equipment or provided separately.

1.3.6 A means of screening from external references must be provided to simulate flight by sole reference to instruments. Screens which require no additional head worn devices are the preferred option, but visors or goggles may be used for this purpose, provided they produce the appropriate screening.

1.4 Test Bookings

1.4.1 Applications for test must be made to CAA Flight Test Bookings iaw the UK Examiner Designation procedures. An examiner will be designated for each test. Applicants may be allocated a CAA Staff Examiner for a test or a test may be observed by a CAA examiner/inspector as part of the CAA's oversight requirements. Once an examiner has been designated the examiner can only be changed by Flight Test Bookings. In exceptional circumstances, for example following a delayed test due to weather where the examiner is unable to accommodate the re-scheduled test, the CAA may designate a different examiner. Tests are normally arranged for a test date as close as possible to the date requested, however applicants may be required to accept a delay where examiner availability is limited or where oversight activity by the CAA is required. Once designated the applicant should contact the examiner prior to the test date to confirm the test administrative details including any examiner travel related expenses.

1.4.2 The fee for the ST is prescribed in the CAA Scheme of Charges for Personnel Licensing which is available on the CAA website. Fees must be paid at the time of the booking. Applicants will be required to show evidence of payment for their test before the flight can proceed. Industry examiners travel related expenses should be discussed separately with the examiner.

1.4.3 Other than in exceptional circumstances, examiners associated with or affiliated to the ATO conducting the training (including those employed by or working under contract to the ATO) will not normally be designated to conduct skill tests for students trained at that ATO.

1.5 General

1.5.1 If the IRT is taken as single pilot in a multi-engine helicopter then no further test is required for single engine IR privileges.

1.5.2 A pilot who is current in multi-pilot operations may take the IRT in a helicopter certified or approved for multi-pilot operations.

1.5.3 An Instrument Rating (Helicopters) is valid for 12 months and may be revalidated up to 3 months before the rating expires.

1.5.4 If the IR (H) is restricted for use in multi-pilot operations only, the revalidation shall be completed in a multi-pilot helicopter. A multi-pilot IR is not valid on single-pilot helicopters (and vice-versa).

1.5.6 Further guidance can be found in Part-FCL Annex I, Subpart G and Appendix VII.

PART 2 CONDUCT OF THE TEST

2.1 Preview of Events

2.1.1 The skill test will be conducted by an examiner designated by the Authority. If the examiner is not qualified to act as commander on the aircraft, a safety pilot must be provided by the ATO arranging the skill test. The content of the skill test is prescribed by Appendix 7 to Part-FCL - IR Skill Test.

2.1.2 The skill test for the grant of the IR will be conducted by a designated IRE or by a CAA Training Inspector. The CAA set the test schedule and standards required and the examiner will conduct each test to meet the required schedule and achieve a meaningful, fair and valid assessment. The examiner will determine the flight profile to cover all required sections of the test and will expect the applicant to conduct the flight in a practical and expeditious manner. Flight profiles may vary depending upon many influences outside the control of the examiner such as ATC requirements, weather conditions, serviceability of navigation or approach aids etc. However, the examiner will ensure that the applicant is given every opportunity by giving clear and unhurried instructions and will check that the applicant has understood what they has been asked to do.

2.1.3 Applicants must remain adaptable and flexible without compromising safety and it is important that they clearly understand the briefing before the flight. The examiner's assessment will consider each section, procedure or manoeuvre of the flight as well as the overall conduct, management, airmanship and general captaincy.

2.1.4 The IRT is divided into six main sections:

Section 1	Departure
Section 2	General Handling
Section 3	En-route IFR procedures
Section 3a	Arrival Procedures
Section 4*	3D Operations
Section 5*	2D Operations
Section 6	Abnormal and Emergency Procedures

2.1.5 All sections of the test are to be completed during one flight, except where the RNP APCH cannot be completed during the flight test, it may be completed in an appropriately equipped (approved) FSTD. The sequence of sections may vary depending on circumstances and the examiner's briefing will include the expected profile. Examiners are responsible for ensuring an efficient test, but applicants must remain flexible, particularly if weather conditions, ATC 'slot' times or availability of approach aids etc. subsequently dictate a different scenario during the flight. When deciding the route, the examiner will generally arrange the test profile such that the flight can be completed within not less than one hour. Whilst the Authority recognises the limitations on the availability of approaches, training slots, access to controlled airspace etc. and the adoption of standard IRT routes used by ATOs, it must be understood that the examiner has the right to choose a route as they see fit which meets the IRT profiles.

2.1.6 A 3D (precision) instrument approach at a destination airfield will be flown to minima's, followed by a go around, and a departure to the alternate airfield (which may be the departure airfield) where a 2D (non-precision) approach will be flown. A simulated engine failure will be required on one of the approaches and on a missed approach or departure. During the flight the applicant will need to fly a holding procedure and complete the general instrument flying manoeuvres (Section 2), which may be completed at the end of the procedural phase. The sequencing of the test sections and selection of suitable airfields is at the examiner's discretion.

2.1.7 The IRT is very demanding. It is appreciated that even the most professional or talented pilots can make mistakes particularly if attention to accuracy is relaxed for a few moments. This does not necessarily mean that a failure should result.

2.1.8 The following notes reflect the style and sequence of the briefing that the applicant may expect to be given. However, the examiner may make variations in the delivery of the briefing and may have to modify the sequence in which items are briefed and flown.

2.1.9 The examiner may stop the test at any stage if they consider that the applicant's demonstration of skill and/or knowledge requires a complete retest.

2.2 Initial Briefing

2.2.1 The purpose of the initial briefing is to check that the applicant has completed the necessary training and experience requirements, to establish the aim of the flight test and to check that they are aware of those planning resources that will be required. This briefing will normally take about 10 minutes.

2.2.2 At the pre-arranged time the examiner will meet the applicant. A check will be made to ensure that the applicant has the necessary equipment and documentation including:

- Pilot's licence (if applicable), personal flying logbook, and evidence of an aircraft rating or completion of approved training.
- UK issued medical certificate. This need not be current, but the applicant will be advised that a current medical is mandatory the rating is to be used.
- A form of identity; e.g. a valid passport, UK Forces ID card or airport pass.
- Recommendation for test and previous attempt form if applicable.
- Current aircraft documents including the Helicopter Technical Log.
- Enough headsets and/or splitter leads so that the examiner can hear R/T and idents.
- Two copies of the approved normal and emergency check lists.
- Suitable instrument flying screens/IF visor or goggles.
- Current publications for the routing and airfields with a copy for the examiner.
- Planning material including an Operational Flight Plan (OFP) and Flight Plan.
- Any relevant CAA correspondence such as a letter of assessment or retraining requirements.
- Proof of payment for the test.

2.2.3 The examiner will outline the content of the skill test including the routing required and the airfields where instrument approach procedures are to be flown.

2.2.4 The applicant will be given the examiner's weight for the 'mass and balance' calculations and performance planning. The callsign and approach bookings will be given for the flight plan and other planning.

2.2.5 When the applicant is clear about the format for the flight, they will be given time to complete the necessary planning and pre-flight preparation, (normally 1 hour) depending upon the circumstances. The examiner will specify the time to meet for the main briefing.

2.2.6 If circumstances prevent the examiner meeting the applicant early enough before flight to give adequate time to plan, they may leave a written briefing with the required data and indicate at what time they will meet for a full briefing.

2.3 Planning

2.3.1 Appropriate facilities must be made available to the applicant so that all elements of the test can be planned and briefed accordingly. The examiner will check that the applicant is aware of where these resources are. A quiet briefing room should be used so that the planning can be completed without interruption or distraction.

2.3.2 Planning shall be completed without assistance from other students or instructors.

2.3.3 Current ATC and Met information should be obtained from the aerodrome flight planning facility or equivalent and the flight plan must be filed in adequate time for the 'slot' booking if entering controlled airspace.

2.3.4 An Operational Flight Plan (OFP) must be prepared and the examiner will require a copy. The Operational Flight Plan (OFP) must include such items as:

- Place of departure;
- Time of departure;
- Place of arrival (planned and actual);
- Time of arrival;
- Route and route segments with checkpoints/waypoints, distances, time and tracks;
- Planned cruising speed and flying;
- Times between check-points/way-points;
- Estimated and actual times overhead;
- Safe altitudes and minimum levels;
- Planned altitudes and flight levels;
- Fuel calculations (records of inflight fuel checks);
- Fuel on board when starting engines;
- Alternate(s) for destination and, where applicable, take-off and en-route, including information required as above;
- Initial ATS Flight Plan clearance and subsequent re-clearance;
- In-flight re-planning calculations;
- Relevant meteorological information.

The overall management of the flight will be assessed as well as the aircraft handling accuracy and knowledge of procedures. OFP must be maintained such that at the end of the test, the flight can be reconstructed from the information recorded. The examiner is also required to keep a log of the flight for navigation as well as assessment purposes.

2.3.5 Any part of the route which entails flight in other classes of airspace where routes or tracks may not be specified will require the applicant to consider all the necessary planning, i.e. tracks and levels of operation, to achieve a safe and efficient flight.

2.3.6 Pre-prepared flight logs or specially drawn routes shall not be used during the IRT. Only routinely available planning information and documents shall be used. Computerised flight/navigation plans or aeroplane mass and balance calculations may be used during the allowed planning period. The applicant remains solely responsible for all planning calculations howsoever derived.

2.3.7 Applicants will be required to calculate the aircraft take off and landing performance for the conditions prevailing.

2.3.8. Approach plates must be from approved sources and can be in paper format or from an EFB application provided it is approved for use within the ATO. If an EFB is used, the examiner must be provided with their own tablet and is to be familiarised with its operation. The examiner's EFB is not to be used as any required 'spare or backup' EFB during the flight.

2.4 Weather Minima

2.4.1 The pre-flight preparation of the IRT requires the applicant to assess the weather conditions and make a decision whether to proceed with the flight. However, when extreme conditions of high wind speed, severe turbulence, icing or thunderstorms exist, the examiner may determine that this would make the flight difficult to assess and may override the applicant's willingness to proceed. The flight should not proceed if all planned sections cannot be achieved or the forecast would prevent a return to base or a suitable alternate aerodrome.

2.4.2 Awareness of icing conditions must be displayed by regularly checking the outside air temperature (OAT) and indicating this to the examiner. Applicants will comply with established operating procedures for the use of aircraft anti-icing equipment particularly with reference to pitot heaters and engine anti-icing systems. The aircraft must not be flown into icing conditions contrary to the helicopter flight manual.

2.4.3 It should be assumed that during the flight both the 3D and 2D approaches are to be flown in minimum weather conditions, therefore the Decision Height/Altitude (DH/A) and Minimum Descent Height/Altitude (MDH/A) shall be calculated and agreed with the examiner before flight. Similarly, applicants should be prepared for any runway change that ATC may direct.

2.5 Main Briefing

2.5.1 Once the applicant has completed the flight planning, the examiner will give a comprehensive briefing covering all aspects of the flight. The applicant should ask questions at any time if unclear about any aspect of the brief.

2.5.2 The briefing will include:

a. **The purpose of the flight**

The purpose of the flight is for the applicant to demonstrate their ability to plan and conduct an IFR flight whilst acting as pilot-in-command and operating in the single or multi pilot role as applicable. The briefed profile shall be conducted in accordance with Instrument Flight Rules (IFR) and will include simulated emergencies. Passenger safety, comfort and reassurance must be considered throughout the flight. The applicant is to assume that the examiner is a passenger, who may be acting as the safety pilot if appropriately qualified, when the instrument screens/visor/hoods are in place. The applicant is not to expect any assistance from the examiner.

b. **The applicant's responsibilities**

All the duties and decisions necessary for the safe and practical conduct of the flight, in accordance with current legislation, will be the applicant's responsibility. Throughout the flight the applicant must liaise with ATC. Amended flight clearances and instructions from ATC must take priority over the pre-briefed flight profile. The examiner will only discuss ATC instructions if it is considered necessary. Applicants should arrange the flight so that flight plan departure time and any other slot allocation is achieved within the allowable tolerances (+ 5 minutes/-10 minutes) in accordance with the Integrated Flight Plan System - IFPS) and update ATC as necessary. Modern radar and ATC procedures often reduce the need for R/T position reporting points, however, the examiner will expect to be informed of ETAs en-route in the form of standard position reports and updates (ETA variations +/-3 minutes). Any significant change to the briefed exercise imposed by ATC may require the flight to be terminated and/or assessed as incomplete.

c. **Check lists**

Throughout the flight the applicant shall use the approved helicopter checklist. If they wishe to complete the checks from memory, they may do so but they must be correct and in accordance with the aircraft checklist. The applicant is to assume that the test is the first flight of the day. Airborne checks may be completed from memory but must be in accordance with the checklist and with each check item verbalised.

d. **Planning check**

The examiner will assess the applicant's ability to check the appropriate helicopter documents before flight. They will expect to be briefed by the applicant as to the suitability of the weather, including the surface wind. The examiner will check the flight navigation log and may require a copy. They may question the applicant on any aspect of the planning, for example: choice of operating altitudes/levels, safety altitudes, fuel planning, NOTAMS etc. The applicant's calculations of the helicopter's mass and balance and performance will be assessed.

e. **Speeds**

The helicopter must be operated in accordance with the RFM as appropriate, and the operating procedures should follow those given in the ATO's Operations Training Manual. The examiner will require confirmation of the various speeds to be used at each phase of flight. Speeds may be adjusted to meet different conditions or circumstances and the examiner must be advised of the new target speed before the change takes place.

f. **Instrument Approach Minima**

Applicants will be required to give details of the operating minima to be observed throughout including the instrument approaches i.e. DH/A or MDH/A, visibility minima, missed approach point (MAPt), and MSA or SSA.

g. **The Profile**

The examiner will go through the flight item by item, explaining to the applicant what is required of him. (To avoid repetition of the briefed items these are expanded at para 3.6: The Flight). The examiner will not instruct the applicant on how to operate or manage the flight; they will advise what they want to see the applicant do. Conditions, such as which radio aids may be used, will be covered. During the briefing the examiner will regularly check if the applicant has any questions and finally the examiner will ask if they are quite clear what is required of them during the test. During the flight the examiner will not prompt or assist the applicant in any way and will only give instructions when necessary and as previously briefed. The lack of conversation in flight should not be interpreted as being unhelpful or hostile but is simply to allow the applicant to conduct the flight without interference. In the event of a MP IR test the examiner may act as co-pilot in accordance with ATO SOPs, if they are qualified to do so, but will expect the applicant to act as the Captain without prompting.

h. **IF screens - simulating IMC**

The applicant is responsible for providing a means of limiting external visual reference that ensures all required manoeuvres and procedures are conducted by sole reference to instruments, whilst not restricting the examiner's ability to conduct an effective lookout. Examiners must satisfy themselves that the means adopted by the applicant are satisfactory.

i. **General Handling on Instruments**

The examiner will brief in which phase of the flight they will conduct this section of the test and will advise that they will take control of the radio, lookout and navigation during this section. The applicant has only to fly the required items which the examiner will brief in detail on the ground and remind the applicant as each item is to be flown. When the section is complete the examiner will ensure that the applicant is comfortable with their location and the aircraft configuration before handing back control for any subsequent sections to be flown.

j. **Emergencies and abnormal conditions**

The examiner will brief the procedure and requirements for the practice engine failure and will discuss the actions necessary should any actual emergency or abnormal condition occur during the flight including arrangements for quick removal of the screens/visors etc. In general, the pilot flying the aircraft (applicant) is to control and handle any actual aircraft emergency but the examiner, as aircraft commander, may elect to take control at any stage.

k. **Oral questioning**

The examiner will ask practical questions relating to the flight on subjects such as IFR procedures, aircraft performance, mass and balance, icing procedures, emergency handling and the aircraft documents.

2.6 The Flight

2.6.1 Applicants will be assessed on all aspects of the helicopter operation. Sound basic handling skills are essential as well as airmanship, navigation, instrument flying, correct R/T phraseology, cockpit and overall flight management. The examiner may elect to evaluate certain aspects by oral questioning.

2.6.2 **Departure Procedure (Section 1)**
The helicopter must have previously been prepared for the flight including fuel, and other equipment. Any delays however caused are a responsibility for the applicant to manage.

2.6.3 The external checks shall be completed using the approved checklist and as if it is the first flight of the day. Transit or rapid turn-around checks are not expected. The examiner will observe the external inspection and may, at any stage, ask questions about the helicopter or procedures. It must be assumed that the aircraft has been left out overnight and is cold soaked, additionally the applicant should expect to encounter possible icing conditions throughout the flight.

2.6.4 The examiner shall be briefed, as a passenger, on the position and method of the use of emergency exits, safety belts, safety harnesses, life jackets, and all other devices and intended for use by passengers in the case of emergency. The applicant must instruct the examiner in the emergency action which they should take. Passenger briefing cards must be made available and may be used to compliment the briefing during which the examiner may ask questions.

2.6.5 After engine start and taxiing the applicant must complete all necessary checks and drills for departure. The instrument flight screens/visors etc. should be positioned before taking off from the dispersal. It may be necessary for the examiner to taxi the aircraft into position for take off because of the applicant's lack of external view.

2.6.6 When ready for departure the applicant must obtain and read back the ATC IFR departure instructions, revise estimates as necessary and ensure that the radio and navigation equipment is set and identified (where possible) ready for use.

2.6.7 A pre take-off briefing may be given at this stage but is not essential in single crew operations. The examiner may brief the requirements in the event of an emergency during take-off.

2.6.8 The take-off and departure must comply with ATC instructions and/or published procedures.

2.6.9 **En-Route Procedures (Section 3) and Arrival Procedures (Section 3a)**
The route planned should be accomplished in a practical manner utilising VOR and/or NDB tracking. ATC units endeavour to integrate test aircraft into the traffic flow to achieve all of the elements of the test, but applicants must be prepared for some re-routings or holding during busy periods. ATC instructions must be treated as practically as possible. The examiner will not normally interfere with such decisions unless these will compromise the requirements of the IRT.

2.6.10 All radio aids must be tuned and identified before use in accordance with normal operating practice and any flight manual requirement. The examiner will not interfere with any radio or navigation equipment except where it is necessary to 'de-tune' any aid when not required for the procedure, e.g. ILS de-tuned during the 2D approach or during the holding pattern. At an appropriate moment, the examiner will restore any radio navigation aids previously detuned.

2.6.11 The IFR route and track must satisfy the basic VOR and ADF tracking requirements (i.e. Track TO and FROM a VOR/NDB). Anticipation of the next track by turning at a discernible distance/radius from the facility is expected. When a suitable route using an NDB is not available, VOR tracking using an RMI needle presentation may be substituted. If neither is available, the examiner may substitute a suitable single-needle tracking task based on an RNAV/FMS source.

2.6.12 The execution of an en-route hold by ATC will be assessed but will not negate the requirement for a hold at the destination and may not be substituted. The holding pattern should be conducted using a 'needle' instrument presentation from either an NDB or VOR or if suitably equipped, the RNAV/FMS.

2.6.13 Autopilot and flight director systems may be used throughout the flight except for the departure (up to achieving S&L cruise conditions), the 3D final approach and go around (from before the FAF and until S&L established on the MAP) and for the General Handling (Section 2) exercises.

2.6.14 If the avionics suite includes track information such as a drift diamond on the navigation display then this may continue to be displayed and used accordingly.

2.6.15 **3D Operations (Section 4) & 2D Operations (Section 5)**
Prior to the instrument approaches the applicant must confirm that the weather conditions are suitable for completing the procedure. The route and terminal procedures must be flown as briefed or as directed by ATC and in accordance with the published procedures bearing in mind the actual and assumed weather conditions throughout.

2.6.16 Each approach is to be flown such that a stable final approach track and a controlled descent path is maintained to DH/A or MDH/A as declared. The examiner will brief the requirements for each instrument approach. This may be to land ahead or go-around from DH/A or MDH/A. A go-around must be executed followed by compliance with the required departure procedure, or into the circuit for landing. You can expect a simulated OEI emergency at some stage on a MAP.

2.6.17 Where ATC request that a higher than briefed approach speed be maintained, the applicant is expected to comply with that request, reducing speed at a position from which the approach minima, stabilised at the target approach speed will be achieved. Should the examiner deem ATCs request unacceptable, then they may act to intervene on behalf of the applicant.

2.6.18 **General Handling (Section 2)**
The examiner may brief to complete this section following completion of all other sections, or at a convenient time during transit. This is normally conducted along with elements of Section 6 as listed below. With the I/F screens/visors/hood in place, the examiner will be responsible for look out, radios and navigation. On completion of the section the examiner will ensure that the applicant is aware of their location and of the next task, before handing back control.

Control of the helicopter by sole reference to instruments including:

- Climbing and descending turns with sustained rate 1 turn.
- Recoveries from unusual attitudes.

2.6.19 **Abnormal and emergency procedures (Section 6)**

Simulated OEI after take-off and during approach

- This exercise would normally be initiated on the go around from the 3D approach and remain in place for the 2D approach and go around.
- The examiner may recover to AEO once the 3D MAP has been stabilised before returning to OEI for the 2D approach.
- Applicants will be required to continue to fly the MAP accurately whilst appropriately dealing with the simulated OEI emergency.

Autorotation:
An autorotation will be briefed by the examiner with the following information:

- A suitable height/altitude above ground to simulate ground level.
- Recovery to a pre-set altitude.
- Examiners will expect to see applicants carryout the normal drills for a double engine failure with any emergency call being verbalised in the cockpit and using ‘touch’ drills only.

Limited Panel:

Flight by reference to limited panel will include:

- Straight and level flight and climbing/descending at a given speed in straight flight.
- Level turns onto given headings at rate one using timed or compass turns.
- Depending on the aircraft installation, the examiner may have to make use of stick on 'covers' to simulate screen/instrument failure – these should be supplied by the ATO.

Failure of stability augmentation system/hydraulic system (if applicable).

- Normally conducted in the en-route phase.
- Dependent on the aircraft installation and must comply with RFM requirements.

Simulated engine failure after take off/during approach – multi engine helicopters only.

2.7 Post Flight Action

2.7.1 At the conclusion of the flight the examiner will conduct a debriefing and declare the result of the test and discuss the applicant's performance. The examiner should use the 5 x Rs during the debrief:

- Result – Pass, Fail, Partial, Incomplete
- Reasons – Identifiable factual items
- Retest – Partial or complete retest
- Rating – (effect on any ratings - normally associated with a Proficiency Check)
- Retraining – What training is recommended

The examiner may ask questions in order to clarify certain items or actions and the applicant will be informed of any sections which they has failed. Any circumstances which arose that were beyond the applicant's control, such as unserviceable equipment, will be considered and, while not recorded as a 'fail', may require a retest of that section. Any section recorded as 'Not Flown' must be completed on a further flight before any other retest requirements are flown. The overall result will not be given until all items are completed.

2.7.2 Notification of the result will be given on the test report form SRG 2135 (Appendix 1). The form will show the result of each item and section. Should the result be a Partial Pass or Fail, the examiner will explain the reasons and also give advice on any aspect of the test, which the applicant may find useful during any subsequent attempt. The applicant will be required to sign the form as having understood the result. The result form will be given to the applicant and copies forwarded to flight test bookings at SSC. The applicant will also be given a copy of SRG 2129 Examiner Report – Reason for failure.

2.7.3 Should an applicant have cause for concern about the conduct of the flight test then they should raise them with the Head of Training at the ATO initially where advice will be given which should include details of the appeal procedure.

PART 3 ASSESSMENT CRITERIA AND ADMINISTRATIVE PROCEDURES

3.1 Assessment Criteria

3.1.1 The flight will be assessed as if the applicant was operating a CAT aircraft and carrying passengers. The safety, comfort, reassurance and briefing of passengers must be considered. The applicant shall demonstrate ability to:

a. operate the helicopter within its limitations.

b. complete all manoeuvres with smoothness and accuracy.

c. exercise good judgement and airmanship.

d. apply aeronautical knowledge of procedures and regulations as currently apply.

e. maintain control of the helicopter at all times in such a manner that the successful outcome of a procedure or manoeuvre is never in doubt.

3.1.2 It is impossible to list all the errors which would constitute a failure of the test, but some more common errors and omissions are shown at Appendix 4.

3.1.3 Throughout the flight the helicopter should be flown as accurately as possible. The limits for operation are given as guidance to applicants but do not necessarily indicate that a failure will result if any boundary is exceeded. Similarly, flight within the tolerances should not be achieved at the expense of smoothness and co-ordination.

3.1.4 The examiner will make allowance for adverse weather conditions such as turbulence and the handling qualities and performance of the helicopter used. The Instrument Rating Skill Test Tolerances are given at Appendix 3 and are for general guidance.

3.2 Administrative Procedures

3.2.1 Each time an applicant undertakes an IR Skill Test it is known as an "attempt". Attempts are grouped into "series". There are two attempts in each series. There is no limit to the number of series that may be taken.

3.2.2 A PASS will be awarded when all sections of the test are passed in an attempt.

3.2.3 An applicant failing only one section at the first attempt in a series shall have gained a PARTIAL PASS. The second attempt will require the applicant to retake the failed section. Failure in any item of that section or failure of any item previously assessed as a pass will require the applicant to retake the entire test again.

3.2.4 A FAIL will be awarded if more than one section is failed at the first attempt in a series. The second attempt will require the applicant to retake the entire test.

3.2.5 A FREE RETEST may be awarded if the applicant discontinues the flight and the reasons for doing so are agreed by the examiner. The free retest will require only those sections or items not previously flown to be completed; these items must be completed before the result of the flight can be determined. If the applicant terminates the flight test, for reasons considered inadequate by the examiner, the test fee will be forfeit and a further fee will be required before the next test.

3.2.6 Failure to pass all appropriate sections in two attempts will conclude that series. Before applying for a further attempt in the next series the applicant will be required to:

a. Complete the mandatory retraining prescribed by the examiner and indicated on the Flight Test Report Form, SRG 2135.

b. Present their personal flying logbook to the examiner. The entries covering the retraining requirement must be certified by the HoT of the ATO giving training.

3.2.7 Should an applicant fail the second or subsequent series, the examiner shall send the completed Form 2135 to the CAA Flight Test Bookings. Flight Test Bookings will consult with SME in the CAA Helicopter Section where it will be determined if the examiners recommendation for training is appropriate and they will appoint the IRE/CAA TI for the subsequent tests. Provided all agree, the IRE from the first test may be designated for the subsequent test. No further test attempt can be made until the applicant receives notification from the CAA. The CAA will also decide the requirements following any subsequent series of unsuccessful attempts.

3.2.8 All sections of the test have must have been completed within the 6 month period following the first attempt.

3.2.9 The second attempt in a series shall be forfeited if the six month period has expired.

3.3 Forms

3.3.1 Examiners and applicants should use copies of forms recently downloaded from the CAA website (www.caa.co.uk). All CAA documents and forms are subject to review and amendment, so it is inadvisable to download the forms on an as needed basis.

3.3.2 Forms are to be completed and distributed as indicated on each form e.g. one for the applicant, one for the examiner, one for the NAA of the applicant and one for the NAA of the examiner if appropriate. Forms should be submitted to the UK CAA promptly to avoid any delays in issuing ratings.

3.3.3 Form SRG 1161 comprises the applicants personal details and indicates the test or check conducted and the rating applied for. It also contains the skill test details. This must be completed in all cases and sent to the CAA together with the appropriate fee from the current Scheme of Charges.

3.3.4 Form SRG 2135 Examiners Report comprises the test schedule; when completed it forms a permanent record of the appropriate test or check. Examiners are required to keep a record of their tests and checks for 5 years, thereafter to destroy the form(s).

3.3.5 Form SRG 2129 Examiner Report Failure of Test Check. In the event of a partial pass or a failure of a ST, an SRG 2129 must be completed and distributed as above. If there are points of dispute these should be entered on the form and signed by the applicant and examiner.

3.3.6 Form SRG 1100 Temporary Certificate. An examiner may issue a Temporary Certificate when satisfied that the applicant has met all the training and testing requirements for the IR being applied for. The issuance of a Temporary Certificate is not compulsory; accordingly, an examiner is not obliged to issue a Temporary Certificate when being unable to satisfy themselves that the applicant is fully compliant with the Part-FCL training and testing requirements. The applicant may exercise the privileges endorsed within the Temporary Certificate for a maximum period of 8 weeks (commencing from the date of test).

3.4 Applicant's Appeal Procedure

3.4.1 Form SRG 2135 contains an extract from the Civil Aviation Authority Regulations 1991, which is reproduced below:

Regulation 6(5) of the Civil Aviation Regulations 1991 provides as follows: Any person who has failed any test or examination which they are required to pass before they are granted or may exercise the privileges of a personnel licence may within 14 days of being notified of the failure request that the Authority determine whether the test or examination was properly conducted. In order to succeed you will have to satisfy the Authority that the examination or test was not properly conducted. Mere dissatisfaction with the result is not sufficient reason for appeal.

Should the applicant have concerns about the conduct of the test, they should discuss this with the HoT at the ATO who will provide advice and guidance on the Appeal Procedure.

ANNEX 1 GLOSSARY OF ABBREVIATIONS AND TERMS

2D	Two Dimensional Instrument Approach – Lateral Guidance
3D	Three Dimensional Instrument Approach – Lateral and Vertical Guidance
AEO	All Engines Operating
AI or ADI	Attitude Indicator or Attitude Direction Indicator
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
ANO	Air Navigation Order
ATA	Actual Time of Arrival
ATC	Air Traffic Control
ATO	Approved Training Organisation
ATS	Air Traffic Services
CAA	Civil Aviation Authority
CAT	Commercial Air Transport
CPL	Commercial Pilot Licence
CRM	Crew Resource Management
DA/DH	Decision Altitude/Decision Height
EASA	European Aviation Safety Agency
FEM	Flight Examiners Manual
ETA	Estimated Time of Arrival
FAF	Final Approach Fix
FMS	Flight Management System
FNPT	Flight Navigation Procedures Trainer
FFS	Full Flight Simulator
FSTD	Flight Simulation Training Device
GA	Go Around
GNSS	Global Navigation Satellite System
HoT	Head of Training
ILS	Instrument Landing System (3D – Precision Approach)
IRE	Instrument Rating Examiner
IRT	Instrument Rating Test
LNAV	Lateral Navigation
LPV	Localiser Performance with Vertical Guidance
MAP	Missed Approach Procedure
MAPt	Missed Approach Point
MDA/MDH	Minimum Descent Altitude/Minimum Descent Height
ME	Multi-Engine
MSA	Minimum Safe/Sector Altitude
OAT	Outside Air Temperature
OEI	One Engine Inoperative
PBN	Performance Based Navigation
POH	Pilot's Operating Handbook
Part FCL	Aircrew Regulation - Annex 1 – Part-FCL
PC	Proficiency Check - the demonstration of skill to revalidate or renew ratings or privileges, and including such oral examination as may be required
RFM	Rotorcraft Flight Manual
RNAV	Area Navigation
RNP APCH	Required Navigation Performance Approach

R/T	Radiotelephony
SE	Single-Engine
SEP	Single-Engine Piston
SET	Single-Engine Turbine
SID	Standard Instrument Departure
SME	Subject Matter Expert
SP or SPH	Single-Pilot or Single-Pilot Helicopter
SSC	Shared Services Centre – CAA main processing department
TEM	Threat and Error Management
ST	Skill Test - the demonstration of skill for a licence or rating issue, including such oral examination as may be required
ToC	Top of Climb
TRE	Type Rating Examiner
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
VNAV	Vertical Navigation

APPENDIX 1 IR SKILL TEST SCHEDULE AND STANDARD

Applicants Notes

These notes are intended to give applicants a detailed account of the exercises that may, at the discretion of the examiner, be required in each section. The headings used relate directly to those shown on Form SRG 2135. In the interests of open-ness the standards to which they are assessed have also been included and these are shown in italics. It is emphasised that during the skill test applicants should concern themselves only with the flying and operating of the aircraft to the best of their ability. The application of the test standards are the responsibility of the examiner.

IR(H) Skill Test Completion and Standards

Use of checklist, airmanship, anti-icing/de-icing procedures, etc., apply in all sections.

SECTION 1 - DEPARTURE

(a) Use of Flight Manual (or equivalent) especially a/c performance calculation; mass and balance:

1. *Correct use of the Flight Manual, Operations Manual, aircraft tech log.*
2. *Determine helicopter performance.*
3. *Determine mass and balance.*

(b) Use of Air Traffic Services document, weather document:

1. *Use of the correct documents, including maps, charts and approach plates to prepare a flight plan and flight log.*
2. *Collate and interpret the weather data to determine the departure, en-route, destination and diversion weather.*

(c) Preparation of ATC flight plan, IFR flight plan/log:

1. *Preparation of the ATC IFR flight plan for the route, including any off-airways sectors, and preparation of a full navigation and R/T flight log.*
2. *Obtain and assess all elements of the prevailing and forecast weather conditions for the route.*
3. *Complete an appropriate flight navigation log.*
4. *Complete the required ATC flight plan(s).*
5. *Determine that the helicopter is correctly fuelled, loaded and legal for the flight.*
6. *Confirm any helicopter performance criteria and limitations applicable in relation to airfield and weather conditions.*
7. *Demonstrate sufficient knowledge of the regulatory requirements relating to IFR flight.*

(d) Identification of the required navaids for departure, arrival and approach procedures:

The examiner (Safety Pilot) will need to have a working knowledge of the navigation systems, conventional and RNAV in the event they need to take control of the aircraft for whatever reason.

1. *Correctly identifies and confirms the associated navaids and frequencies for the flight from the charts, plates etc.*
2. *Correctly interprets the required data from the charts, approach plates for the planned procedures.*

(e) Pre-flight inspection:

1. *Perform all the elements of the helicopter pre-flight inspections using an approved checklist as detailed and applicable to simulated icing conditions.*
2. *Confirm that the helicopter is in a serviceable and safe condition for flight.*
3. *Check and completes all necessary documentation.*
4. *Take appropriate action with respect to any identified unsatisfactory conditions.*
5. *Carries out a comprehensive Safety Briefing from the Passenger Briefing Card.*

(f) Weather Minima:

1. *Confirmation of acceptability of weather affecting the departure, route, destination and diversion.*
2. *Determination of the expected instrument approach minimum heights/altitudes.*

(g) Taxiing/Air taxy in compliance with ATC or as instructed:

The examiner (Safety Pilot) will take control of the aircraft once the applicant declares that they are ready for take-off/taxi. The examiner (Safety Pilot) should follow the ATC instructions and manoeuvre the aircraft appropriately as requested by the applicant in order to carry out a check of the instruments and navaids. The applicant will normally retain control of the R/T.

1. *During taxiing checks for correct instrument and navaids displays.*
2. *Aerodrome markings and indicators, including marshalling instructions and signals.*
3. *Pre-start checks iaw RFM.*
4. *Post start checks iaw RFM.*
5. *Instrument and avionics checks iaw RFM/Operations Manual procedures including set up for departure/flight.*
6. *Pre-take-off checks iaw the RFM.*

(h) PBN departure (if applicable):

The PBN departure should be flown manually until stabilising the aircraft at the ToC.

1. *Check that the correct procedure has been loaded in the navigation system.*
2. *Cross-check between the navigation system display and the departure chart.*

(i) Pre-take off briefing, procedure and checks:

1. *Obtain ATC departure clearance, cockpit preparation.*
2. *Confirmation of departure and passenger emergency briefing.*
3. *Complete all recommended taxi checks and procedures.*
4. *Comply with airport markings and signals.*
5. *Complete all appropriate checks and drills.*
6. *Obtain ATC taxi clearance.*
7. *Complete an appropriate passenger briefing. (Emergency handling details should be discussed in the pre-flight brief).*
8. *Confirm any performance criteria, including wind limitations.*
9. *Action any anti-icing procedures.*
10. *Complete all necessary after take-off checks and climb at the appropriate power and speed settings agreed at the briefing.*

(j) Transition to instrument flight:

The examiner (Safety Pilot) will conduct the take-off in accordance with the performance calculations using the correct techniques. Once established in the climb, the examiner (Safety Pilot) will hand over control to the applicant who will then complete a smooth transition to instrument flight and complete the after take-off checks and drills.

(k) Instrument departure procedures, including PBN procedures:

The departure is to be flown manually until stabilising the aircraft at the ToC for the en-route section.

1. *Complete the Standard Instrument Departure (SID)/PBN procedure or ATC departure instructions into the en-route phase.*
2. *Use of correct altimeter setting procedures. Maintaining helicopter control, speed, heading and level.*
3. *Maintain directional control and drift corrections within acceptable limits of speed, heading, height and track.*
4. *Identify any navigation aids used.*
5. *Follow any noise routing or departure procedures and ATC clearances.*
6. *Complete all necessary climb checks including altimeter setting procedures and ice precautions.*

SECTION 2 - GENERAL HANDLING

These exercises may be completed whilst manoeuvring within other sections of the test.

(a) Control of the helicopter by reference solely to instruments including:

1. *Establish straight and level flight at a nominated speed, height and heading.*
2. *Demonstrate competence at controlling helicopter altitude speed and heading by sole reference to flight instruments.*
3. *Use an appropriate technique of instrument scanning and cross check to maintain flight within prescribes limits.*
4. *Maintain directional control and balance throughout.*
5. *Complete all necessary checks and drills throughout.*
6. *Straight and level flight at various speeds maintaining balance and trim.*
7. *Demonstrate appropriate cockpit management procedures in identifying selecting and confirming AP Hold and RNAV functions.*

(b) Climbing and descending turns with sustained Rate 1 turn:

1. *Smooth control maintaining balance and trim onto designated heights and headings.*
2. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

(c) Recoveries from unusual attitudes, including sustained 30° bank turns and steep descending turns:

These exercises should be carried out in VMC and normally at the end of the IRT.

1. *The examiner will state the required recovery parameters of heading, altitude/FL, airspeed and simulated safety altitude to the applicant before taking control and then requesting the applicant closes their eyes and places their head on chest. The examiner places the aircraft into an 'unusual attitude'. On being given the instruction "follow me through - you have control" the applicant is to take control and recover the aircraft to a safe configuration before expeditiously returning it to the required parameters. Two UAs are to be flown (e.g. high speed turning descent, low speed with high rate of descent).*
2. *Regain control of the aircraft.*

3. *Adjust/correct aircraft attitude, speed and altitude, demonstrating an appropriate sequencing technique.*
4. *Demonstrate competence at manoeuvring the a/c by sole reference to flight instruments.*
5. *Use an appropriate technique of instrument scanning and cross check to maintain flight within prescribed limits.*
6. *Maintain directional control and balance throughout.*
7. *Complete all necessary checks and drills throughout.*
8. *Establish turns at up to 30 degrees angle of bank, using the direction indicator, on to nominated heights and headings whilst maintaining speed and altitude.*

SECTION 3 - EN-ROUTE IFR PROCEDURES

(a) Tracking, including interception, e.g. NDB, VOR, RNAV:

1. *Track to and from a facility using the appropriate displays needles during procedural IFR approaches to either 3D or 2D approaches.*
2. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

(b) Use of radio aids:

1. *Correct use of navaids/RNAV with regard to promulgated range, identification and interpretation.*
2. *Use of appropriate ATS where available.*

(c) Level flight, control of heading, altitude and airspeed, power setting:

1. *Establish straight and level flight at a nominated speed, height and heading.*
2. *Demonstrate competence at controlling helicopter altitude speed and heading by sole reference to flight instruments.*
3. *Use an appropriate technique of instrument scanning and cross check to maintain flight within prescribes limits.*
4. *Maintain directional control and balance throughout.*
5. *Complete all necessary checks and drills throughout.*
6. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

(d) Altimeter settings:

1. *Correct altimeter setting procedures*
2. *Cross checking and monitoring of en-route MSA.*

(e) Timing and revision of ETAs:

1. *Accurate timing revision of ETAs including en-route hold procedures if required.*

(f) Monitoring of flight progress, flight log, fuel usage, systems management:

1. *Completion of the navigation and R/T log to monitor flight progress.*
2. *Provide position reports and manage the fuel system.*
3. *Monitoring and managing the other helicopter systems.*
4. *Use of checklists.*

(g) Ice protection procedures simulated if necessary and applicable:

1. *Monitoring of OAT.*
2. *Use of anti-icing and de-icing procedures as required.*

(h) ATC Liaison – compliance, R/T procedures:

1. *ATC Liaison using the correct R/T procedures and phraseology and compliance with procedures and clearances.*
2. *Following the flight planned route or any other ATC route requirements within the operating limits specified.*
3. *Identify and use navaids/RNAV systems correctly.*
4. *Use the correct altimeter setting procedures and show awareness of MSA.*
5. *Maintain the flight log for navigation, R/T and fuel use, sufficient to give position reports and to confirm acceptable minimum fuel states.*
6. *Conduct an en-route hold if required by ATC.*
7. *Use the correct R/T procedures and phraseology.*

SECTION 3A – ARRIVAL PROCEDURES

(a) Setting and checking of navigational aids, if applicable:

1. *Use of navaids/RNAV with regard to promulgated range, identification.*

(b) Arrival procedures, altimeter checks:

1. *Descent planning and consideration of MSA.*
2. *Completion of the published arrival procedure or as instructed by ATC including altimeter settings.*
3. *ATC Liaison and R/T procedures.*

(c) Altitude and speed constraints, if applicable:

1. *Establishing a stabilised approach using the correct techniques for attitude, heading and power control.*
2. *Correct assessment of drift and rate of descent.*
3. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

(d) PBN arrival (if applicable):

1. *Check that the correct procedure has been loaded in the navigation system; and*
2. *Cross-check between the navigation system display and the arrival chart.*

SECTION 4 – 3D OPERATIONS

To establish PBN privileges, one approach in either Section 4 or 5 shall be an RNP APCH. Where an RNP APCH is not practicable, it shall be performed in an appropriately equipped FSTD.

The 3D approach should be flown manually from no later than the FAF – care should be taken to ensure the applicant has sufficient time to take stabilised control of the aircraft from the AP. On the GA the examiner should initiate an OEI condition. The OEI condition can be suspended once the applicant stabilises at ToC on the MAP before re-establishing the OEI condition during the final approach for the 2D approach.

(a) Setting and checking of navigational aids:

1. *Check Vertical Path angle for RNP APCH.*
2. *Check that the correct procedure has been loaded in the navigation system.*
3. *Cross-check between the navigation system display and the arrival chart.*
4. *Use of navigation aids with regard to promulgated range, identification and interpretation.*

(b) Approach and landing briefing, including descent/approach/landing checks:

1. *The approach briefing including weather and confirmation of instrument approach procedure minima, and all procedures, checks and drills in preparation for landing.*

(c) Holding Procedure:

To be performed in Section 4 or Section 5. AP Holds may be used for holding.

1. *Completion of appropriate entry procedures followed by a hold, making the appropriate corrections to heading and time.*
2. *Complete an approach briefing and the checks and drills for landing. Sets and identify any navigation aids. Use the appropriate altimeter settings and R/T procedures.*
3. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

(d) Compliance with published approach procedure:

1. *Compliance with the appropriate published instrument approach procedure.*

(e) Approach timing:

1. *Monitoring or controlling the approach procedure using timing as necessary.*

(f) Altitude, speed, heading control (stabilised approach):

1. *Establishing a stabilised approach using the correct techniques for attitude, heading and power control. Correct assessment of drift and rate of descent.*

(g) Go-around action:

To be performed in Section 4 or Section 5.

The examiner should initiate a simulated OEI condition shortly after the applicant correctly initiates the GA. The OEI GA should continue to be flown manually until reaching ToC for the MAP. The OEI condition can be suspended once the applicant stabilises at ToC on the MAP before being re-establishing the OEI condition during the final approach for the 2D approach.

1. *At the minima, or as directed by ATC, transitioning to a climb at the correct speed and completing the checks.*

(h) Missed approach procedure/landing:

To be performed in Section 4 or Section 5.

1. *Following the missed approach procedure. (Normally, following the 3D approach, a go-around and missed approach procedure will be required.)*
2. *Demonstrate knowledge of the missed approach procedure.*
3. *Initiate the missed approach procedure upon reaching DH/A (if required visual references for landing runway are not obtained.*
4. *Establish the helicopter in a safe climb and initiate power changes as required to achieve the performance climb segments.*
5. *Follow the designated MAP or as required by ATC.*
6. *Correctly and without inappropriate delay, respond to the OEI condition.*

(i) ATC liaison – compliance, R/T procedures:

1. *ATC liaison using the correct R/T procedures and phraseology, and compliance with procedures and clearances.*

SECTION 5 – 2D OPERATIONS

To establish PBN privileges, one approach in either Section 4 or 5 shall be an RNP APCH. Where an RNP APCH is not practicable, it shall be performed in an appropriately equipped FSTD.

The 2D approach should be flown fully coupled. The OEI condition should be carried forward from the 3D GA or if warranted the examiner can establish AEO for the procedure then revert to OEI for the final approach before re-establishing AEO during the GA for the MAP.

(a) Setting and checking of navigational aids. For RNP APCH:

1. *Check that the correct procedure has been loaded in the navigation system.*
2. *Cross-check between the navigation system display and the approach plate.*
3. *Check Vertical Path angle for RNP APCH.*
4. *Use of navigation aids with regard to promulgated range, identification and interpretation.*

(b) Approach and landing briefing, including descent/approach/landing checks and identification of facilities:

1. *The approach briefing including weather and confirmation of instrument approach procedure minima, and all procedures, checks and drills in preparation for landing.*

(c) Holding Procedure:

To be performed in Section 4 or Section 5.

1. *Completion of appropriate entry procedures followed by a hold, making the appropriate corrections to heading and time.*
2. *Complete an approach briefing and the checks and drills for landing. Sets and identify any navigation aids. Use the appropriate altimeter settings and R/T procedures to liaise with ATC to prevent disruption to commercial traffic.*
3. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

(d) Compliance with published approach procedure:

1. *Compliance with the published vertical and horizontal profile to the nominated minima.*

(e) Approach timing:

1. *Monitoring or controlling the approach procedure using timing as necessary.*

(f) Altitude, speed, heading control (stabilised approach):

1. *Establishing a stabilised approach using the correct techniques for attitude, heading and power control. Correct assessment of drift and rate of descent.*
2. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

(g) Go-around action:

To be performed in Section 4 or Section 5.

1. *At the minima, or as directed by ATC, transitioning to a climb at the correct speed and completing the checks.*

(h) Missed approach procedure:

To be performed in Section 4 or Section 5.

1. *Demonstrate knowledge of the missed approach procedure.*
2. *Initiate the missed approach procedure upon reaching MAPt.*
3. *Establish the helicopter in a safe climb and initiate power changes as required to achieve the performance climb segments.*
4. *Follow the designated missed approach procedure or as required by ATC.*
5. *Correct use of AP Holds and their adjustments to achieve the required flight path.*

ATC liaison – compliance, R/T procedures:

1. *ATC liaison using the correct R/T procedures and phraseology and compliance with procedures and clearances.*

SECTION 6 - ABNORMAL AND EMERGENCY PROCEDURE

This section may be combined with sections 1 through 5. The test shall have regard to control of the helicopter, identification of the failed engine, immediate actions (touch drills), follow up actions and checks and flying accuracy, in the following situations:

(a) Simulated engine failure after take-off and on/during approach (at a safe altitude unless carried out in an FFS or FNPT II/III, FTD 2,3) - multi engine only:

Carried out on the GA from the 3D approach.

1. Without delay, establish the correct attitude, power setting and airspeed for the simulated OEI condition.
2. Make best use of the AP HOLDS.
3. Correctly diagnose the emergency condition using TEM principles.
4. Make the appropriate announcements to the passengers as well as simulated call to ATC.
5. Complete the correct actions required from the RFM/Checklists for the emergency (touch drills).
6. Continue to fly the MAP within the prescribed parameters.

(b) Failure of stability augmentation devices/hydraulic system (if applicable):

Comply with any restrictions from the RFM. If the exercise is unable to be simulated, then it should be carried out as a verbalised only exercise. May be used to prepare applicant for a manually flown 3D approach.

(c) Limited panel:

Where displays cannot be switched off in-flight, the examiner should make appropriate use of blanks/covers etc. as adopted by the ATO to remove the main instrument displays where possible.

1. Correctly adjusts focus to standby instruments to maintain entry conditions.
2. Continues to fly the aircraft within the prescribed parameters whilst manoeuvring as directed to include changes in heading, altitude and airspeed.

(d) Autorotation and recovery to a pre-set altitude:

To be conducted in VMC. Examiner is responsible for carrying out the HASELL checks. Altitude for recovery must be clearly declared. On initiation of the exercise:

1. *Expeditiously enters autorotation whilst correctly managing rotor speed.*
2. *Establishes a/c into wind, whilst establishing correct airspeed for exercise.*
3. *Uses AP HOLDs if available.*
4. *Declares emergency and warns passengers (R/T calls must be 'in cockpit' only).*
5. *Carries out appropriate restart/shutdown checks – touch drills only.*

On reaching declared altitude or a when informed to 'Go Around':

6. *Expeditiously commences correct powered recovery.*
7. *Establishes correct airspeed for AEO climb.*
8. *Re-establishes flight parameters as directed.*

(e) 3D operations manually without flight director or: 3D operations manually with flight director:

APPENDIX 2 INSTRUMENT RATING SKILL TEST TOLERANCES

The following limits shall apply, corrected to make allowance for turbulent conditions and the handling qualities and performance of the aircraft used:

Height

• Generally	± 100 feet
• Starting a go-around at DH/DA	+50 feet/-0 feet
• MDA/MAP/altitude	+50 feet/-0 feet

Tracking

• On radio aids	±5°
• For angular deviations	half scale deflection, azimuth and glide path (e.g. LPV, ILS)
• 2D (LNAV) and 3D (LNAV/VNAV) “linear” lateral deviations	cross-track error/deviation shall normally be limited to ± ½ the RNP value associated with the procedure. Brief deviations from this standard up to a maximum of 1 time the RNP value are allowable.
• 3D linear vertical deviations (e.g. RNP APCH (LNAV/VNAV) using Baro-VNAV)	not more than -75 feet below the vertical profile at any time, and not more than +75 feet above the vertical profile at or below 1000 feet above aerodrome level.

Heading

• All engines operating	±5°
• With simulated engine failure	±10°

Speed

• All engines operating	±5 knots
• With simulated engine failure	+10 knots/-5 knots

APPENDIX 3 INSTRUMENT RATING TEST – COMMON REASONS FOR FAILURE

The following is a list of the more usual errors or omissions which constitute fail points:

1. Failure to comply with any speed limitation.
2. Failure to apply the correct altimeter settings at any phase of the flight.
3. Failure to check before flight any one of the flight instruments including the compasses (gyro and magnetic).
4. Failure to check any of the following items during the pre-flight helicopter inspection: pitot head(s) and static heaters; static vents; all de-icing and anti-icing equipment for serviceability; fuel and oil; electrical system.
5. Failure to use any of the above equipment correctly and appropriately.
6. Failure to check on the ground, as far as possible, any item of radio and navigation equipment, which is to be used during the flight.
7. Failure to complete any checks and drills as prescribed in the approved check list including taxi, engine and pre-take off checks.
8. Failure to obtain ATC clearance whenever necessary.
9. Failure to comply with ATC clearances or use correct R/T phraseology and reporting procedures, including use of the transponder.
10. Jeopardising the safety of the helicopter at any time by lack of control such that the examiner is caused to take over.
11. Exceeding the tolerances of speed, height and heading/track indicated at Appendix 3 and maintaining the error for an unreasonable period of time.
12. Failure to correctly identify any radio navigation aid before use.
13. Failure to maintain the tracking required within ± 5° when a good signal is being received at a suitable distance from the transmitter.
14. Correcting track by turning in the wrong direction and maintaining the error for an unreasonable time.
15. Failure to adjust ETAs such that ATA differs from ETA by more than three minutes.
16. Failure to calculate the correct minimum safe obstacle clearances.
17. Failure to apply the correct joining procedure and timing during the holding pattern or to establish the inbound track.
18. Failure to check the airfield minima before commencing an approach to land.
19. Failure to maintain published tracks and reference heights/altitudes for a given instrument procedure.
20. Failure to intercept and maintain the NDB/VOR inbound track before the intermediate descent and final approach fix or facility or maintain the final approach track and height reference.
21. Failure to maintain within half scale deflection the published glide path and final approach track or to establish the helicopter on a stabilised approach.
22. Exceeding the limits applicable to DH/A or MDH/A for the instrument approach.
23. Failure to comply with the cleared GA and MAP.
24. Failure to carry out correctly any simulated emergency procedure and maintain control of the helicopter within the prescribed limits.
25. Failure to achieve departure ATC slot time within acceptable tolerances necessitating a delay and re-filing of the flight plan.
26. Failure to maintain the helicopter on a stable approach path during the instrument approach procedures.
27. Failure to recognise any equipment malfunction within a reasonable period of time.
28. Failure to demonstrate sufficient skill or technique with instrument flying such that excessive helicopter control inputs are required.

APPENDIX 4 THE MULTI ENGINE IR UPGRADE

1. *Basic Requirements*

Some applicants undertake their initial IR(H) in a single engine helicopter and when they have completed their type rating conversion course for their first multi-engine (ME) helicopter they then need to complete the ME instrument rating (MEIR).

Such applicants shall complete:

(a) a training course at an ATO comprising at least 5 hours dual instrument instruction time, of which 3 hours may be in an FFS or FTD 2/3 or FNPT II/III; and

(b) section 5 of the skill test in accordance with Appendix 9 to Part-FCL on multi-engine helicopters.

2. *Administration*

Once the applicant has successfully completed the MEIR, the examiner will complete the forms (SRG 2138 and 1173) and forward these to the CAA SSC who will then issue the MEIR to the applicant.

APPENDIX 5 SKILL TEST – MANAGING STRESS

As you prepare for your test a certain amount of stress is helpful. Too much stress can be unhelpful, as it can affect your memory and concentration. Even the word ***test*** can induce panic and doubt. Here are some ways of managing and reducing your stress.

Make sure you eat regularly. Skipping a meal, e.g. breakfast, will make your blood sugar level unstable and this will make the symptoms of stress worse.

Do not be tempted to increase your intake of tea or coffee as caffeine will increase your stress level (a maximum of 5 cups of tea or coffee a day is recommended). Energy drinks may contain high levels of caffeine and will not help.

Exercise has been proved to reduce stress. It uses up the body chemicals produced by too much stress (e.g. adrenalin) and replaces them with endorphins, feel-good body chemicals. You can test this: next time you are going to take exercise note how stressed are you before you start, on a scale of 0 - 10 (where 0 = calm and 10 = stressed), then measure again when you return from the exercise. Therefore, exercise on the day before the test and on the day of the test will help to reduce your stress levels. It will also distract you and help you to sleep well the night before. If you are feeling very stressed just before the test, take some vigorous exercise e.g. power walk round the car park before going in.

Stress is increased by negative thoughts e.g. 'I am going to fail this test'. Having the thought will not make any difference directly to the outcome of the test but will increase your stress levels. Similarly, don't load yourself with unreasonable assumptions of your required skills – no test demands a perfect performance.

If you find that despite your best endeavours your stress is higher than is helpful to you, try some distraction. Concentrate on the things around you, refocus your mind and distract yourself from your thoughts. Try listening to other people's conversations, count the number of red things in the room, guess what the people in the room may be going to eat that evening - anything that will engage your attention. The more detailed the task you give yourself, the more distracting it will be.

If you know that you are inclined to become stressed, then plan ahead how you might manage your stress. Decide what exercise you are going to take, and practise what form of distraction you are going to use. Make sure that you allow plenty of time on the day; do as much preparation in advance as is possible. Plan to arrive early and ensure that you have all the equipment that you may need. Don't add to the pressure; is it really sensible to book a flight home immediately after your test? If, say, family pressures are mounting consider a training break until things settle down. Do not be tempted to test just because money is tight – you must be ready.

During your test try to prioritise tasks; omitting or delaying a minor activity is preferable to rushing into a more important event. Listen carefully to ATC, both to your own clearances and instructions as well as to other calls that may affect you. Tell ATC what you want to do and avoid unwanted communication tasks when you are going to be busy.

The best defence against stress is the confidence that comes from sound preparation and regular practice. Various Standards Documents are available to you on the CAA web site which clearly set out what you are required to do. Your instructors are there to deliver the skills training necessary to meet the test standard.

Recurrent training and testing is going to be a feature of your aviation career. Coping with stress is just one more skill to learn on the way.