

**Safety & Airspace Regulation Group**

**Flight Operations: Training Standards and Policy Group**



## **UK CAA Standards Document 19(H) Version 7**

### **Part-FCL LAPL and PPL (Helicopters) Skill Test**

#### **Policy and guidance for Applicants**

**This Standards Document defines UK policy and means of compliance with the UK Aircrew Regulation No 1178/2011 (as amended) Annex I (Part-FCL) Subpart C – Private Pilot Licence (PPL), and the associated Acceptable Means of Compliance, Guidance Material and Appendices and Air Navigation Order 2016**

All amendments to this document will be notified via SkyWise.  
The latest version of this document can be viewed on the CAA website.

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## Foreword

This document sets out the guidance for applicants taking the Skill Test for the grant of a Private Pilot's Licence (PPL) Helicopter or a Light Aircraft Pilot Licence (LAPL) 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.

This document is intended as a reference document for student pilots, licence holders and instructors, to explain the administrative procedures required to undertake a skill test for the LAPL and PPL and to ensure that the way skill tests are conducted is standardised across the aviation community.

Nothing in this document is intended to conflict with the UK Aircrew Regulation or 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, to correct errors and omissions or to reflect changes in national policy and best practice.

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 and the Aircrew Regulation (UK Reg No. 1178/2011) as assimilated into UK domestic law. In fulfilling this role, the CAA is required to provide oversight documentation, including standards documents, guidance material and acceptable means of compliance that may be used by relevant personnel and organisations to allow them to perform their tasks, discharge their responsibilities and establish compliance with the UK Basic Regulation 2018/1139.

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](http://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 the [www.caa.co.uk](http://www.caa.co.uk)

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## Glossary of Abbreviations and Terms

AFM	Aircraft Flight Manual
AGCS	Air Ground Communication Service
AGL	Above Ground Level
AI or ADI	Attitude Indicator or Attitude Direction Indicator
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AMC	Acceptable Means of Compliance
ANO	Air Navigation Order 2016 (as amended)
ATC	Air Traffic Control
ATIS	Automatic Terminal Information Service
ATSU	Air Traffic Service Unit
ATO	Approved Training Organisation
ATZ	Air Traffic Zone
CAP	Civil Aviation Publication
CDFA	Continuous Descent Final Approach
CPL	Commercial Pilot Licence
CRM	Crew Resource Management
CTA	Control Area
CTR	Control Zone
DA/H	Decision Altitude/Height
DTO	Declared Training Organisation
DVE	Degraded Visual Environment
EFATO	Engine Failure After Take-Off
FEH	Flight Examiners Handbook
FE (PPL)	Flight Examiner Private Pilot Licence (Helicopters)
FI	Flight Instructor
FIE	Flight Instructor Examiner
FISO	Flight Information Service Officer
FMC	Frequency Monitoring Code
FNPT or FNPT II	Flight Navigation Procedures Trainer
FOTI	Flight Operations Training Inspector (CAA Staff Flight Examiner)
FRTOL	Flight Radio Telephony Operators Licence
FS or FFS	Flight Simulator or Full Flight Simulator
FSTD	Flight Simulation Training Device
GR	Ground Examiner
GPS	Global Positioning System
GM	Guidance Material
GNSS	Global Navigation Satellite System
ICAO	International Civil Aviation Organisation
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IMC	Instrument Meteorological Conditions
IR	Instrument Rating
IRE	Instrument Rating Examiner
IRI	Instrument Rating Instructor
LAPL	Light Aircraft Pilot's Licence

LARS	Lower Airspace Radar Service
MATZ	Military Air Traffic Zone
ME	Multi-Engine
MMD	Moving Map Devices
Non-Part 21 aeroplane	Aeroplanes certificated in accordance with British Civil Aircraft Requirements (BCAR)
NOTAM	Notice to Aviation
Part 21 aeroplane	Aeroplane certificated in accordance with Initial and Continuing Airworthiness Regulations.
Part-ARA	Aircrew Regulation – Annex VI Authority Requirements
Part-DTO	Aircrew Regulation – Annex VIII Declared Training Organisation
Part-FCL	Aircrew Regulation - Annex I – Part-FCL
Part-MED	Aircrew Regulation – Annex IV – Part-MED
Part-NCO	Air Operations Regulation – Annex VII – Part-NCO
Part-ORA	Aircrew Regulation – Annex VII Organisation Requirements for Aircrew
POH	Pilots Operating Handbook
PLB	Personal Locator Beacon
PMD	Pilot Medical Declaration
Proficiency Check	Demonstration of skill for the revalidation or renewal of a licence or rating, including oral examinations as may be required.
RMZ	Radio Mandatory Zone
RNAV	Area Navigation
RPS	Regional Pressure Setting
RT	Radiotelephony
RTO	Rejected Take-off
SE	Single-Engine
SE (H)	Senior Examiner (Helicopters)
SRA	Standardised Rule of the Air
Skill Test	Demonstration of skill for the issue of a licence or rating
TEM	Threat and Error Management
TMZ	Transponder Mandatory Zone
TRE	Type Rating Examiner
TRI	Type Rating Instructor
VFR	Visual Flight Rules
VMC	Visual Meteorological Conditions
VRP	Visual Reference Point

## Editorial Convention

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 holds a valid examiner authorisation certificate issued by the CAA has reviewed the latest available information regarding UK national procedures in accordance with Part-FCL.1015.
- "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.
- "He/She". The pronoun 'he' is used throughout for ease of reading.
- "Test" is used in this document to describe skill tests and proficiency checks.
- "Training Organisation" is used to indicate any organisation approved by the CAA or declared with the CAA to carry out training for the issue of a Part-FCL LAPL or PPL (H).

## Part 1 – General information

- 1.1 An applicant for the Skill Test shall have received instruction on the same type of helicopter to be used in the test. The privileges will be restricted to the same type used for the skill test until the holder has completed the required familiarisation, differences, type rating training and testing as appropriate to operate a new type of helicopter.
- 1.2 The skill test shall be divided into different sections, representing the distinct phases of flight appropriate to the category of aircraft flown. Failure of any item in a section will cause the applicant to fail the entire section. If the applicant fails only one section, he shall repeat that section. Failure of more than one section will cause the applicant to fail the entire test. Failure to achieve a pass in all sections of the test in 2 attempts will require further training. There is no limit to the number of skill tests that may be attempted.
- 1.3 The type rating issued following a successful Skill Test will be valid for the period stated in FCL.740(a).
- 1.4 Examiners are not permitted to conduct skill tests for applicants for the issue of a LAPL or PPL(H) to whom they have provided more than 25% of the required flight instruction for that licence or whenever they feel that their objectivity may be affected.

## Part 2 – Preparations and Provision of Helicopters

### 2.1 Flight Test Preparation

- 2.1.1 The skill test shall be taken within 6 months of the completion of training and all sections of the test must be completed within 6 months of the first attempt.
- 2.1.2 An applicant for a skill test shall have successfully completed all the theoretical knowledge examinations associated with the issue of a LAPL or PPL (H) within the timeframe designated in FCL.025.
- 2.1.3 Skill test applicants shall have successfully completed all the flight training stated in Subpart B (LAPL) /Subpart C (PPL), as applicable, prior to conducting the skill test. Including the requirement for at least 35 flight hours in the same type of helicopter as the one used for the Skill Test.
- 2.1.4 An examiner shall be designated for the skill test by the CAA examiner designation process. Once designated the applicant should contact the examiner prior to the test date to confirm the test administrative details including any examiner fees.
- 2.1.5 Upon completion of all required training for the issue of a LAPL or PPL(H), the training organisation responsible for the applicant's training is required to provide a course completion certificate and recommend the applicant for test. The applicant's training records should also be made available to the examiner.
- 2.1.6 Applicants who have previously attempted the Skill Test must produce to the examiner the previous test report and notice of failure forms. The forms will indicate to the examiner which items and sections were previously failed and any further training requirement.

- 2.1.7 Applicants for a LAPL(H) must hold at least a valid Class LAPL medical certificate and a PPL(H) must hold at least a Class 2 Medical certificate issued in accordance with Part-MED. The medical certificate shall be shown to the examiner. If the certificate is out of date the examiner may still conduct the test, but the applicant should be made aware that, regardless of the outcome, the licence will not be issued until the medical certificate is renewed.
- 2.1.8 It would help applicants when conducting the skill test if they have already passed the Flight Radio Telephony Operators (FRTOL) practical test prior to attempting the Skill Test

## 2.2 Provision of Helicopters

- 2.2.1 The applicant must provide an appropriate single pilot, single engine helicopter for the skill test. The helicopter must meet the requirements for training aircraft as detailed in ORA.ATO.135 or DTO.GEN.240as applicable, and must be airworthy and suitably equipped such that all items and manoeuvres may be completed. Although there is no formal approval process, the examiner has full discretion to decide whether an aircraft is suitable for use on the test.
- 2.2.2 A non-Part 21 aircraft operating on a valid National Permit to Fly may only be used for flight training and testing on a commercial basis in accordance with Article 42 of the ANO 2016 or a permission issued under Article 42. Where the recipient of the training or applicant for test is:
- a) the registered owner or joint-owner, or
  - b) a registered shareholder of the company of which owns the aircraft, or
  - c) the spouse or child of a registered sole or joint owner,
- and is the operator of the aircraft, this would normally be considered a non-commercial operation. The onus is on the applicant and training organisation to confirm compliance with Article 42 or any permission issued under it.
- 2.2.3 Non-Part 21 amateur built helicopters cannot be used for initial flight training and testing.
- 2.2.4 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 NCO.IDE.H for Part 21 helicopters and Article 77 of the ANO for non-Part 21 helicopters. Instruments must be readily visible to both the examiner and the applicant. Controls for other systems such as 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.
- 2.2.5 Helicopters must be equipped with a VHF Transceiver and two-way inter-communication using headsets must be fitted for use by the examiner and applicant.
- 2.2.6 Section 3 of the Skill Test for the PPL(H) requires the applicant to demonstrate the use of radio navigation equipment. The navigation equipment installed needs to comply with NCO.IDE.H.195. This should include at least one VOR, ADF or DME. However, if the aircraft is not equipped with a VOR, ADF or DME then GPS/GNSS (range and bearing) information can be used to gain a fix and for the purposes of tracking. GPS/GNSS equipment where fitted, must have the latest software and an up to date map database for use during the skill test.
- 2.2.7 Where required by the airspace being flown, helicopters shall be equipped with a secondary surveillance radar (SSR) transponder with at least Mode C.
- 2.2.8 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.
- 2.2.9 A means of screening from external reference must be provided to simulate flight by sole reference to instruments where required by the test (PPL(H) only). Head worn visors or goggles

may be used for this purpose.

## Part 3 Conduct of the test

### 3.1 Preview of events

- 3.1.1 The skill test will be conducted by an appropriate flight examiner or an CAA Inspector designated for the test by the CAA. The test schedule and standards required are set by Part FCL. The examiner will conduct each test to meet the required schedule to achieve a meaningful, fair, and valid assessment. They will give the applicant clear and unhurried instructions and where appropriate, verify that the applicant has understood the instructions.
- 3.1.2 Applicants will be assessed on all aspects of the helicopter operation including handling skills threat and error management (TEM), cockpit resource management (CRM), airmanship, navigation, instrument flying, correct flight radio phraseology, cockpit and overall flight management. The examiner will also evaluate elements of the test by oral questioning.
- 3.1.3 The skill test is divided into five main sections:
- Section 1 Pre/Post Flight Checks and Procedures
  - Section 2 Hover Manoeuvres, Advanced Handling and Confined Areas
  - Section 3 Navigation - En-route procedures
  - Section 4 Flight Procedures and Manoeuvres
  - Section 5 Abnormal and emergency procedures
- 3.1.4 The skill test is intended to be flown as a complete flight including navigation and general handling manoeuvres. However, as agreed between the applicant and the examiner, the En Route Procedures, Section 3, may be flown as a separate flight however, the test should not be commenced unless it is anticipated that both flights can be completed in the same day. (If Section 3 is flown on a separate flight then Section 1 will be assessed on both flights).
- 3.1.5 If the skill test is completed in two parts, both parts shall be conducted by the same examiner. The overall result of the attempt shall not be assessed or recorded until all sections have been completed. Each part of the attempt shall be recorded on separate test report forms (SRG 1172) and clearly marked with the attempt/series number. All sections of the skill test must be completed within 6 months.
- 3.1.6 The sequence in which the Sections are conducted may vary depending on the circumstances. Briefing and planning will be completed in approximately 2 hours, the pilot's pre-flight inspection in 30 minutes. The Navigation - En Route section, including Instrument Flying and Radio Tracking, normally takes about 1 hour and the Hover Manoeuvres, Advanced Handling and Confined Areas combined approximately 1 hour. Section 5 may be combined, at the discretion of the Examiner, with Sections 1 through 4, or, flown as a separate section.
- 3.1.7 The skill test is very demanding. It is appreciated that even the most competent pilots can make mistakes, but this does not necessarily mean that a failure should result. 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.
- 3.1.8 Appendix 2 to this document gives a list of the test standards upon which the Examiner will base their assessment. The criteria are arranged to reflect the order of items listed on the Examiner's Report form (SRG 1172).

### 3.2 Initial Briefing

- 3.2.1 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 check that they are aware of those planning resources that they will require. This briefing will normally take about 10 minutes.
- 3.2.2 At the pre-arranged time the Flight Examiner will meet the applicant. A check will be made to ensure that the applicant has the necessary equipment and documentation including:
- Training records and a personal flying logbook (including evidence of any further training if this is not the first attempt).
  - For a LAPL(H) hold at least a valid Part-MED LAPL Class medical certificate.
  - For a PPL(H) hold at least a valid Part-MED Class 2 medical certificate.
  - A form of photo identity: e.g. valid passport, driver's licence or ID card.
  - A course completion certificate and recommendation for test from the training organisation.
  - If this is not the first attempt – a copy of the Examiner's Report from the previous attempt should be made available to the examiner. SRG1172 or SRG2129 as applicable.
  - Evidence of successful completion of all theoretical examinations.
  - Current aircraft documents as required by NCO.GEN.135 for a Part 21 helicopter and Article 229 of the ANO for a non-Part 21 helicopter.
  - Two headsets - most examiners will carry their own headset, but a spare unit should be available for the flight.
  - Two copies of the helicopter check list.
  - Suitable view limiting device(s) to simulate IMC for any manoeuvre to be flown by sole reference to instruments, for PPL(H) only.
  - Current publications for the routing and airfields.
  - Planning material including a blank flight log, chart and navigation equipment.
  - If the applicant is also using a moving map device (MMD), as part of their flight planning, this must be made available to the flight examiner to ensure it is charged, includes an up to date database and is working satisfactorily.
  - Any relevant CAA correspondence such as a letter of assessment or further training requirements.
- 3.2.3 The examiner will outline the content of the skill test including a navigation route (where applicable) and any other airfields to be used. For skill tests with a navigation route this will normally comprise 2 legs; each leg should be sufficiently long to require at least one visual fix during the leg and each leg will have a minimum duration of 10 minutes. The route would normally require transit through controlled airspace or a MATZ/ATZ. The examiner should also establish whether the candidate intends to use a MMD during the skill test, and if so, the examiner should emphasise that it can be used as a backup, apart from the assessment of the first three legs of Section 3.
- 3.2.4 The applicant will be given the examiner's weight and the weight of any bags or equipment to be taken on board so that they can complete the mass and balance and performance calculations.
- 3.2.5 When the applicant is clear about the format for the flight, he 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.

### 3.3 Main Briefing

- 3.3.1 The examiner will give a comprehensive briefing covering all aspects of the flight. During the briefing the examiner will ask questions to establish the applicant's knowledge and understanding of the privileges of a private pilot the applicant can ask questions at any time if they are unclear about any aspect. This briefing would normally take 30 minutes. The examiner may not brief in the sequence below but will cover all the relevant items in the briefing. The examiner may include some questions about threat and error management issues associated

with the flight.

3.3.2 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 a private, passenger carrying flight whilst acting as pilot-in-command and operating as a single pilot. The briefed profile shall be conducted in VMC and the flight will include simulated helicopter emergencies and general flying manoeuvres. Passenger safety, comfort and reassurance must be considered throughout the flight. The applicant is asked to assume that the examiner is a passenger, and as such can only offer basic assistance. The examiner will act as the Safety Pilot when flight in simulated IMC takes place (PPL only).

(b) **The applicant's responsibilities**

The examiner will explain that all the duties and decisions necessary for the safe and practical conduct of the flight, in accordance with current legislation, will be the responsibility of the applicant. The applicant should liaise with ATSU however if ATSU instructions conflict with the briefing these will take priority; the examiner will only intervene for reasons of safety or clarification.

(c) **Checklists**

Throughout the flight the applicant will be expected to use the approved helicopter checklist. The applicant is to assume that the test is the first flight of the day and carry out a pilot pre-flight inspection. Airborne checks may be completed from memory, or from alternative notes, but must be in accordance with the checklist and with each check item spoken aloud.

(d) **Planning check**

The examiner will assess the applicant's ability to check the appropriate helicopter documents before flight and will expect to be briefed by the applicant as to the weather suitability. The Examiner will check the flight navigation log and may take a photocopy. They may question the applicant on any aspect of the planning, for example: choice of operating altitudes, safety altitudes, fuel planning and NOTAMS. The applicant's calculations of the helicopter's Mass & Balance and Performance will be assessed.

(e) **The profile**

Having established the test or check to be conducted the examiner should confirm whether the candidate is intending to make use of a MMD device. Although the candidate will be allowed to put the VFR navigation route into the MMD device and use it for pre-flight planning purposes the route must be drawn on a valid chart for the area being flown and used as the primary source of information relating to airspace etc as part of the candidates TEM. The candidate must be able to demonstrate their ability to refer to source documentation for their pre-flight planning.

When reviewing the route during the main brief the examiner should ask questions relating to the route being flown primarily using the chart, and the MMD only as a backup.

The examiner will go through the flight, item by item explaining to the applicant what is required and asking questions as appropriate to check knowledge and understanding. The examiner will not instruct the applicant on how to fly or manage the flight but will advise on what is required and what will be assessed. Conditions, such as when navigation aids, autopilot, GPS etc may be used, will be covered. Procedures for the use of view limiting devices (if required) will be advised, including a reminder that, when simulating IMC for the PPL(H) only, the examiner will be responsible for lookout.

- (f) **Helicopter control**  
The helicopter must be operated in accordance with the Aircraft Flight Manual (FM) or Pilots Operating Handbook (POH), as appropriate, and the operating procedures should follow those given in the Training Organisation's Operations Manual or equivalent document. The examiner will require confirmation of the various speeds and configurations 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 at that time. The examiner will also explain that if the applicant wishes to change any of the heights/altitudes in flight, they must inform the Examiner and nominate a new height/altitude.
- (g) **Emergencies and abnormal conditions**  
The Examiner will discuss the actions necessary should any real emergency or abnormal condition occur during the flight. In general, the applicant is to control and handle any helicopter emergency but the Examiner, as helicopter commander, may elect to take control at any stage.
- (h) **Simulated Emergencies**  
See also para 3.6.7. The examiner will brief on how simulated abnormal, or emergency procedures will be introduced. In general, these should be "scenario based." The examiner will describe the symptoms of a system failure, aircraft fault or simulated emergency and the applicant will be expected to work through an appropriate set of checks or procedures to correctly identify the cause(s) and decide upon an appropriate course of action to either resolve the situation or contain it whilst a safe recovery is made. The examiner may terminate the emergency/abnormal procedure at any time, but normally not before the applicant has demonstrated a sound decision-making process that would likely have led to a safe outcome.
- (i) **Oral questioning**  
The examiner may ask practical questions relating to the flight on subjects such as VFR procedures, helicopter performance and technical aspects, emergency handling and the helicopter documents.

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

### 3.4 Planning

- 3.4.1 The applicant will normally be given 1 hour to complete the necessary planning and pre-flight preparation. The examiner will specify the time to meet for the pre-flight briefing.
- 3.4.2 Appropriate planning facilities should be made available to the applicant either at the training organisation or at the aerodrome flight planning facility. The examiner will check that the applicant is aware of the planning resources available. A quiet briefing room should be used so that the planning can be completed without interruption or distraction.
- 3.4.3 Planning shall be completed without assistance from other students or instructors.
- 3.4.4 Current Air Traffic, Met, and NOTAM information must be obtained from the official and regulated source material and retained for review by the Examiner. The applicant can use a flight planning software and display this through a MMD device to assist with flight planning.

- 3.4.5 The applicant must prepare a flight log and the Examiner may require a copy. The log must include such items as:
- Route (including airspace restrictions and planned alternate aerodrome).
  - Communication and navigation aid frequencies (note that where this information is clearly displayed on planning documents, such as the charts to be used, it is not necessary to copy that information to the log).
  - Planned levels and altitudes.
  - Timings, ETAs.
  - MSA, safety altitude or minimum levels/altitudes.
  - A fuel plan showing fuel required for the flight, useable fuel plus any contingency fuel. There should be space for the applicant to log fuel remaining at various points throughout the flight.
  - Space for logging ATIS and ATISU and clearances/instructions in a chronological order.
- 3.4.6 The route may require flight through airspace other than class G airspace and consideration should be given to any special precautions during planning.
- 3.4.7 Flight planning software, computerised flight/navigation systems displayed on a MMD or helicopter performance and mass and balance calculations may be used during the allowed planning period. However, the applicant should expect to be questioned on the process underlying the calculations and may be required to confirm with a manual weight and balance calculation to confirm the derived figures. The applicant remains solely responsible for all planning calculations howsoever derived.
- 3.4.8 Applicants will be required to calculate take-off and landing performance for the conditions prevailing, and will be required to ensure a safe area ahead for departure and arrival to ensure that a safe landing could be executed in the event of an emergency. The applicant is expected to apply any additional factors that are required in NCO.OP.175, and should also use the recommended safety factors as published in the Skyway Code (CAP1535).

### 3.5 Weather Minima

- 3.5.1 The applicant is required to identify any threats associated with the weather conditions when making the decision whether to proceed with the flight. The flight must be conducted in Visual Flight Rules (VFR) and in Visual Meteorological Conditions (VMC) and in compliance with the minimum weather conditions specified in their Training Organisation's Operations Manual or equivalent document. 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 PPL element to be flown by sole reference to instruments, will simulate IMC by using appropriate cockpit screening, goggles or a visor.
- 3.5.2 Applicants shall comply with published aerodrome operating minima in accordance with Standardised Rules of the Air, or the minimum weather conditions specified in their training organisation manuals or procedures or due to limitations on the Permit to Fly. However, when extreme conditions of high wind speed, severe turbulence, icing or thunderstorms exist, the examiner may determine that these 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.
- 3.5.3 Awareness of airframe and engine icing conditions must be displayed by regularly checking the outside air temperature and applying carburettor heat where appropriate. Training organisations must ensure that operating procedures are published for using any aircraft anti-

icing or de-icing equipment and for the operation of carburettor heat. The helicopter must not be flown in icing conditions if this is contrary to the AFM/POH.

### 3.6 Applicants Pre-Flight Briefing

3.6.1 When the applicant has completed the flight planning, they will present the flight log and give the examiner a pre-flight briefing.

3.6.2 The pre-flight briefing shall identify any threats and the appropriate mitigations and should contain at least the following items (the MATED brief is only included as a suggested aide memoir):

<b>Met</b>	Met conditions as appropriate for the area and time of the flight
<b>Aircraft</b>	Mass, balance, performance, fuel load, tech log details
<b>ATC</b>	Airfield details, NOTAMS, RT services, Nav aids
<b>Exercise</b>	How the Navex is to be conducted (produce flight log)
<b>Duties</b>	Pax Brief (normally conducted at the aircraft)

3.6.3 There are other structured numonics that will help applicants when preparing for the skill test in the Skyway Code (CAP1535), available on the CAA website.

### 3.7 The Flight

3.7.1 The following is a suggested sequence of the sections for the flight test, however this may be varied according to conditions and circumstances, and may be planned to flown as two flights on the same day. The applicant will be assessed through all sections on their general flight management, TEM, CRM, airmanship, observance of aircraft limitations, accuracy and flying skills. The flight test standards are listed at Appendix 2.

#### 3.7.2 Section 1 Pre/Post Flight Checks and Procedures

The examiner will assess the applicant's ability to check the appropriate helicopter documents before flight and will expect to be briefed by the applicant as to the weather suitability. The examiner will check the flight navigation log and may take a photocopy. they may question the applicant on any aspect of the planning, for example: choice of operating altitudes, safety altitudes (heights), fuel planning, NOTAMS. The applicant's calculations of the helicopter's Mass & Balance and Performance will be assessed.

3.7.3 The applicant will carry out the pre-flight inspection of the helicopter, including any servicing operations that the PIC is entitled to carry out, using an appropriate approved checklist, checks should be described to the examiner when requested. Pre-flight checks of the radio and navigation equipment should include all the equipment which the applicant proposes to use during the flight. The examiner shall be given the appropriate passenger safety brief as required by Article 73(1) of the ANO 2016 and NCO.OP.130 including actions to be taken in the event of an emergency.

3.7.4 The applicant will be expected to complete all pre/post take off checks, including flight radio calls and demonstrate compliance with ATSU procedures and instructions.

3.7.5 On completion of the flight the applicant will be expected to carry out all the prescribed parking, shutdown and post flight procedures in accordance with the FM/POH checklist, local procedures and ATSU instructions.

### 3.7.6 Section 3 The En-Route procedures

Section 3 is normally conducted next to ensure efficiency of the flight. During this section of the flight the helicopter is assumed to be on a private, passenger carrying flight under Visual Flight Rules (VFR). The section comprises of a planned DR navigation leg of approximately 10 minutes, a short map reading leg of approximately 5 to 8 km, a planned track crawl of approximately 10 minutes, a planned radio navigation tracking (or GNSS leg of approximately for PPL only) and then an unplanned 'in flight' diversion. MMD may be used to support the navigation and map reading legs.

Leg 1: The first leg should be flown using the 1:250,000 chart in accordance with the applicant's navigation calculations, aiming to maintain heading, altitude, and speed by use of mental dead reckoning. When the helicopter has achieved cruising altitude and is on heading for the initial point, the applicant should confirm to the Examiner the heading, altitude, and ETA, thereafter, advising any changes. For example, "I am 3 minutes late at my halfway point and 5 miles left of track - the revised heading is....and the new ETA is now.

Leg 2: When the initial point has been identified to the examiners satisfaction the applicant will change to the 1:50,000 (OS) map to map read approximately 5 km to the next turning point (which will normally be a stately home, large house, hotel or similar feature) using the features on the ground to assist.

Leg 3: This leg is to be flown as a track crawl with the applicant returning to using the 1:250,000 chart and maintaining the track by map reading. The track should be 'direct' but sensible use should be made of clearly identifiable features on the track ahead. If the applicant wishes to deviate from the planned track/height they should state the reason and then return to the track/height as soon as possible.

Leg 4: (PPL only) For the fourth leg the applicant will be required to demonstrate the use of a navigational aid or the use of an MMD. A VOR or NDB can be used to track a radial or one of the GNSS functions can be nominated by the examiner (e.g. VOR tracking, map, 'direct to', use of the cursor etc). The appropriate navaid and aircraft instrument checks should be carried out before the aid is use. If the MMD is used for GNSS purposes, then a route will be provided by the examiner, however at some stage on the leg the examiner may deny the use of the MMD for a simulated reason such as low battery power and require the candidate to continue, and identify the waypoint on the map before turning onto the next leg. The examiner may also ask questions on various functionality of the MMD such as set up, functionality and errors that can occur in its use. (Note: for the GNSS to be used in a skill test the latest software data must be installed.)

For the LAPL(H) the examiner will simulate a collision avoidance manoeuvre that will require assessment of lookout procedures and actions.

Diversion: The purpose of this leg is to see the applicant carry out 'in flight' planning to an alternate location. The examiner will mark on the 1:250,000 map the diversion location and the aircraft's present location. The applicant will assess the new heading and ETA and then make any adjustments en-route using any of the techniques used in the previous legs. During this leg any aids on the aircraft (including GNSS or MMD) may be used.

When the candidates progress has been assessed accordingly, the examiner can allow the candidate to demonstrate the use of the MMD to complete the diversion or continue using recognised DR navigational techniques. Any use of the MMD during the rest of the flight should only be during the routing to an aerodrome for the circuits and not for orientation during the circuits themselves

Throughout the section the examiner will assess the applicant for:

- (a) Correct altimeter settings use
- (b) Awareness of minimum safe altitudes (MSA) and minimum levels
- (c) Compliance with regulations and liaison with ATC. A safe practical approach to ATC liaison is required
- (d) Accuracy of flying, altitude, speed, heading control
- (e) Cruise checks as appropriate, fuel management, carburettor icing etc.
- (f) Navigation/Map reading, integration of MMD and assessment and correction of errors
- (g) Achievement of ETAs (+/- 3minutes at turning points)
- (h) Engine handling and rotor control
- (i) Use of Airmanship, ADM, CRM and TEM

### 3.7.7 Section 4 Flight Procedures

The following items will be assessed in this section:

Control of the helicopter by external visual reference including:

- (a) Straight and level flight at various airspeeds and configurations
- (b) Climbing and descending at various speeds at rate 1 onto specified headings
- (c) Turns using up to 30° bank through 180° & 360° left and right
- (d) Simulated IMC (PPL Only) The examiner will simulate inadvertent entry into cloud, by means of screens, visors or goggles and the applicant will be required to execute a rate one level turn on instruments through 180° to simulate returning the aircraft to VMC on a suitable heading. Applicants are expected to show consideration of the safety factors necessary for flight in IMC.

### 3.7.8 Section 2 Hover Manoeuvres, Advanced Handling and Confined Areas

This section of the Skill Test reflects the type rating requirements for the helicopter on which the licence will be opened. The applicant will be asked to demonstrate the following:

- Take-off and landing (lift off and touchdown)
- Taxi, hover taxi
- Stationary hover with head/cross/tail wind
- Stationary hover turns, 360° left and right (spot turns)
- Forward, sideways and backwards hover manoeuvring
- Simulated engine failure from the hover
- Quick stops into and downwind
- Sloping ground/unprepared sites landing and take offs
- Take offs (various profiles)
- Crosswind, downwind take off (if practicable)
- Take off at maximum take-off mass (actual or simulated)
- Approaches (various profiles)
- Limited power take-off and landing
- Autorotations (FE to select two items from – Basic, constant attitude, range, max range, low speed, and 360° turns)
- Autorotative landing
- Practise forced landing with power recovery
- Confined area, power checks, reconnaissance technique, approach, and departure technique

### 3.7.9 Abnormal and Emergency Operations (Section 5)

The examiner will simulate an abnormal or emergency scenario where the applicant is expected to carry out the appropriate emergency actions (by using "touch drills" only unless briefed otherwise). Emergencies requiring throttle manipulation will be briefed by the examiner. Emergency radio calls should be made aloud in the cockpit but not transmitted. Applicants should not assume that the practice emergency is complete until told by the examiner.

### 3.8 Post Flight Action

- 3.8.1 After the flight, the examiner may ask questions to clarify any test items actions and then complete any oral questioning to satisfy the requirements of the Type Rating element of the test. The examiner will then give the result and any reasons for a failure before conducting the debriefing and discussing the applicant's performance. The skill test is very demanding. It is appreciated that even the most competent pilots can make mistakes, but this does not necessarily mean that a failure should result. The following criteria will be applied to each test item:
- a. **'Pass'**, provided that the applicant demonstrates the required level of knowledge, skill or proficiency and, where applicable, remains within the flight test tolerances for the licence or rating;
  - b. **'Fail'** if any of the following apply:
    - (i) the flight test tolerances have been exceeded after the examiner has made allowance for turbulence or ATC instructions;
    - (ii) the aim of the test or check is not completed;
    - (iii) the aim of exercise is completed but at the expense of safe flight, violation of a rule or regulation, poor airmanship, poorly managed risks, significant errors that go unnoticed or uncorrected for significant amounts of time or rough handling;
    - (iv) an acceptable level of knowledge is not demonstrated;
    - (v) an acceptable level of flight management is not demonstrated;
    - (vi) the examiner has to intervene to prevent an unsafe situation or undesirable aircraft state.
- 3.8.2 Each time an applicant undertakes a 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.
- 3.8.3 A PASS will be awarded when all items of all sections of the test are passed.
- 3.8.4 A PARTIAL PASS is awarded if a failure occurs for any item in one section at the first attempt. The applicant is required to repeat that section. Subsequent failure in any section, including those that have been passed in a previous attempt, will cause the applicant to retake the entire test.
- 3.8.5 A FAIL will be awarded when more than one section is failed at the first attempt. A failure of any section of the second attempt will require the applicant to retake the entire test.
- 3.8.6 A FREE RETEST may only 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, they may forfeit the test fee and a further fee will be required before the next test.
- 3.8.7 Notification of the result will be recorded on the examiner report forms
- a. For LAPL/PPL(H) form SRG 1172.
  - b. For a failed test form SRG 2129.

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 for the failure and 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 forms as having understood the result and will be given a copy of the reports form to retain

- 3.8.8 Prior to conducting a subsequent test the applicant will be required to complete the retraining prescribed by the Flight Examiner on the report form(s) and have a Recommendation for a Test from the Training Organisation indicating that the prescribed training has been completed
- 3.8.9 Should the applicant fail to pass by the second series a third series test will be conducted by a CAA FOTI or an examiner nominated by the CAA.

## Part 4 – Appeal procedure

### 4.1 Applicant's Appeal Procedure

- 4.1.1 Regulation 6(5) of the Civil Aviation Authority Regulation 1991 states that:

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 with an appeal, the applicant will have to satisfy the CAA that the examination or test was not properly conducted. Mere dissatisfaction with the result is not enough.

- 4.2.2 Should the applicant have concerns about the conduct of the Skill Test they should refer to CAP1049 (April 2014) – Guidance for Applicant : Review of conduct of test or exam Regulation 6 of the Civil Aviation Authority Regulation 1991 and if necessary, contact the CAA in writing to either: [OGCMailbox@caa.co.uk](mailto:OGCMailbox@caa.co.uk) or

General Counsel and Secretary to the CAA  
5<sup>th</sup> Floor Westferry  
11 Westferry Circus  
London  
E14 4HD

## APPENDIX 1 Skill Test Schedule

### Applicant's Notes

The flight will be assessed as private, passenger carrying flight. The safety and 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, TEM and airmanship
- (d) Apply aeronautical knowledge of procedures and regulations as currently apply
- (e) Maintain control of the helicopter at all times in a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt

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 SRG 1172 the latest copy which is available on the CAA website. The standards to which they are assessed have also been included. It is emphasised that during the skill test applicants should concern themselves only with flying and operating the helicopter to the best of their ability. The application of the test standards are the responsibility of the examiner.

### SECTION 1 – PRE/FLIGHT OR POST-FLIGHT CHECKS AND PROCEDURES

- (a) **Helicopter knowledge- i.e. tech log, fuel, mass and balance, performance flight planning, NOTAM and weather briefing.**
  - Check all documents required for a private, passenger carrying flight are correct
  - Obtain and assess all elements of the prevailing and forecast weather conditions
  - Collate all relevant ATC information, NOTAMS, Nav aids, RT services
  - Complete an appropriate flight navigation log and chart and the supporting log on any MMD beign used, if applicable
  - Determine that the helicopter is correctly fuelled for the flight
  - Complete a manual Mass & Balance schedule
  - Calculate helicopter Performance criteria and limitations applicable to the forecast weather conditions and make adjustments if required for actual conditions before take off
  - Identify any threats associated with the flight.
- (b) **Pre-flight inspection or action, location of parts and purpose**
  - Check helicopter serviceability record and technical log
  - Using an approved checklist perform all elements of the helicopter pre-flight inspections, identifying components and functions as required by the examiner
  - Confirm that the helicopter is in a serviceable and safe condition for the flight
  - Check and complete all necessary documentation
  - Complete an appropriate passenger emergency procedure briefing for the Examiner
- (c) **Cockpit inspection and Starting procedures**
  - Complete all recommended cockpit inspection, engine/rotor starting and after starting procedures using an approved checklist
- (d) **Communication and navigation equipment checks, selecting and setting frequencies**
  - Complete all recommended communication and navigation equipment checks
  - Select and set appropriate frequencies and transponder codes

**(e) Pre take-off procedure, Flight radio procedure and ATSU compliance**

- Complete all recommended pre take off checks using an approved checklist
- Obtain ATSU clearance and follow ATSU instructions
- Complete all necessary after take off checks from memory
- Comply with airport markings
- Use charts or other published information as required
- Execute a safe departure in accordance with clearance and with due regard for other air traffic
- Use correct lookout techniques
- Observe the Rules of the Air and ATSU Regulations
- Maintain directional control and drift corrections throughout
- Follow any noise routing or departure procedures and ATSU instructions
- Complete all necessary climb checks
- Demonstrate standard flight radio procedures and phraseology
- Demonstrate compliance with ATSU instructions
- Operate on the ground and in the air with particular regard for passenger safety and comfort

**(f) Parking, shutdown and post flight procedure**

- Return helicopter to parking area and complete engine shutdown
- Complete all after landing checks and drills
- Secure helicopter and complete documentation

**SECTION 2 – HOVER MANOEUVRES, ADVANCED HANDLING AND CONFINED AREAS****(a) Take-off and landing (lift off and touch down)**

- Lift to and establish a stable hover maintaining ground position and heading
- Descend to land maintaining ground position and heading
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(b) Taxi, Hover Taxi**

- Demonstrate control of heading, height and groundspeed in hover taxi
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(c) Stationary hover with head, cross or tail wind**

- Maintain heading, height and ground position whilst in the stationary hover into wind, crosswind and downwind
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(d) Stationary hover turns, 360 degrees left and right (spot turns)**

- Carry out a spot (pedal) turn, maintaining the height, ground position and rate of turn throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(e) Forward, sideways and backwards hover manoeuvring**

- Establish and maintain throughout each manoeuvre the nominated height, heading and speed
- Backwards manoeuvre to be preceded by lookout turn and increase of hover height
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(f) Simulated engine failure from the hover**

(Normally initiated by the examiner simulating an engine failure by closing the throttle with verbal warning)

- Stop the aircraft tendency to drift and roll
- Stop the yaw tendency
- Cushion the touchdown
- When on the ground lower the collective lever
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(g) Quick stops into wind and downwind**

- Establish straight and level flight at the nominated speed, height and heading with cruise power set.
- Into Wind - Initiate manoeuvre with verbal warning – Quickstop, Quickstop, Go- lower the collective whilst simultaneously flaring the aircraft, maintaining height and heading until aircraft comes to complete stop before descending into low hover.
- Downwind - Initiate manoeuvre with verbal warning – Quickstop, Quickstop, Go – then either flare the aircraft and turn, or turn and flare the aircraft (or a combination of both) to bring the aircraft back into wind whilst maintaining height and not letting the speed fall below 30 kts until heading within 30 degrees of the wind. Once the aircraft has come to a complete stop descend into a low hover.
- Complete all necessary checks and drills throughout
- Maintain lookout throughout
- Maintain directional control and balance throughout

**(h) Sloping ground or unprepared sites landing and take off**

- Identify landing area on slope and conduct recce to consider at least the following points:
  - Size Large enough to land the aircraft onto without striking the tail/blades
  - Shape Valley, bowl, direction of slope
  - Surrounds Blade/tail clearance, FOD, trees/shrubs, people
  - Slope Within limits of aircraft/pilot
  - Surface Firm, slippery, muddy, rocky
- Move onto slope area and conduct up slope/cross slope landing
- Maintain heading, ground position, and prevent movement of aircraft on slope
- When landed centralise the flying controls
- Prior to take off preposition controls
- Lift into hover maintaining heading and ground position
- Move away from slope ensuring tail is not turned towards the slope
- Be prepared to abort the landing at any stage
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(i) Take offs (various profiles)**

- Demonstrate take-off/transition from the hover as detailed by the Examiner
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(j) Cross wind and downwind take-off (if practicable)**

- Demonstrate take-off cross/ down wind from the hover as detailed by the Examiner
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(k) Take off at maximum take off mass (actual or simulated)**

- Demonstrate, using an appropriate technique a take off and transition from the hover ensuring the aircraft is flown within the limits set by the Examiner
- Maintain directional control/balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(l) Approaches (various profiles)**

- Demonstrate an approach nominated by the Examiner
- Maintain directional control/ balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(m) Limited Power take-off and landing**

*(Normally simulated by the examiner giving an simulated power limitation)*

- Carry out hover power check
- Select and demonstrate a transition from the hover using an appropriate technique for the simulated power limit set by the Examiner
- When instructed carry out an in flight power check, from which the Examiner will set a simulated power limit to be used for the approach and landing
- Select and demonstrate an appropriate technique for the approach and landing using only the simulated power limit set by the examiner
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(n) Auto-rotations**

*(The examiner will select two items, from basic, range, low speed, and 360 degree turns.*

- Select an area and height/altitude for the nominated autorotation
- Carry out HASEL (or other appropriate) checks
- Establish straight and level flight at the nominated speed, height and heading with cruise power set (into wind)
- Initiate manoeuvre with verbal warning – Practice Autorotation Go- and establish autorotation
- Fly the appropriate parameters for the nominated technique
- Close throttle to idle position (usually completed by the examiner)
- When instructed by the Examiner to ‘Go Around’ (or at an agreed height/altitude) open throttle (usually completed by the examiner) and establish the aircraft in a climb using the nominated climbing speed
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

- Maintain directional control and balance throughout
- Control Nr throughout

**(o) Auto-rotative landing**

(The Examiner will nominate the landing area, the entry speed, height and heading. The applicant will select entry point unless otherwise instructed)

- Identify the nominated landing area, if appropriate conduct recce (Size, Shape, Surrounds, Slope Surface)
- Carry out HASEL (or other appropriate) checks
- Establish final approach (into wind), straight and level flight at the nominated speed, height and heading with cruise power set
- Initiate manoeuvre with verbal warning – Practice Engine Failure Go- and establish auto-rotation using the appropriate parameters for the nominated technique
- Close throttle to idle position (usually completed by the examiner), when necessary the Examiner will assist
- Ensure no aircraft skid or drift by 300ft agl
- Apply appropriate flare at appropriate height for aircraft/conditions
- Cushion the aircraft onto the ground, with a running landing if appropriate, whilst maintaining heading
- Lower collective lever judiciously
- Complete all necessary checks and drills throughout
- Maintain lookout throughout
- Maintain directional control and balance throughout
- Control Nr throughout

**(p) Practice Forced Landings with Power Recovery**

The Examiner will brief on how the PFL will be initiated during the Main briefing. The HASEL checks and carb heating selection are the responsibilities of the Examiner for this exercise.

- Enter autorotation
- Select the landing site
- Adopt the appropriate autorotative technique to 'make' the selected landing site
- Carry out the appropriate radio calls (in the cockpit only)
- Carry 'touch drills' to indicate emergency cockpit drills
- Close throttle to idle position (usually completed by the examiner)
- Give appropriate warning to passenger
- When instructed by the Examiner to 'Go Around' (or at an agreed height/altitude) open throttle (usually completed by the examiner) and establish the aircraft in a climb using the nominated climbing speed
- Complete all necessary checks and drills throughout
- Maintain lookout throughout
- Maintain directional control and balance throughout
- Control Nr throughout

**(q) Confined Area including power checks, recce technique, approach and departure techniques** (The Examiner will nominate the confined area to be used)

- Identify the nominated landing area and conduct appropriate recce to cover at least the following points (normally not conducted lower than 500ft agl):
  - **Size** - Is the confined area large enough for pilots ability and aircraft size and which type of approach will it require?
  - **Shape** - In relation to the wind direction/final approach
  - **Surrounds** - Outer - habitation, hazards that may affect the circuit, approach, overshoot. Inner - hazards in the immediate area of the landing site
  - **Slope & Surface** - Suitability of the landing site (may require confirmation prior to landing)
  - It may be appropriate to include other considerations such as sun, shadow,

wires, etc

- Carry out power check (normally into wind, within 500ft agl of the landing area), note power available
- Conduct circuit and approach, identifying escape routes and landing committal point in order to carry out a landing, dummy approach or go around as appropriate
- Establish hover at appropriate height in the confined area (land/spot turn only if requested by Examiner)
- When instructed to take off by the Examiner note power available and carry out the appropriate take off profile, in an appropriate direction, to depart the confined area
- Maintain directional control and balance throughout
- Control Nr throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

### SECTION 3 – NAVIGATION EN-ROUTE PROCEDURES

#### (a) Navigation and orientation at various altitudes or heights and map reading

- Complete all elements of VFR planning for the route prescribed with particular reference to planned altitudes and safe levels of operation
- Identify position visually by reference to ground features and map
- Integrate the use of MMD, ensuring that applicants maintain awareness of their location in the event of loss of the device.

#### (b) Altitude or height, speed, heading control, observation of airspace and altimeter settings

- Control helicopter altitude speed and heading using visual attitude flying techniques
- Maintain the heading height and speed as computed in navigation log or advised to the Examiner within the prescribed limits observing airspace
- Complete all necessary checks and drills
- Set altimeter to QNH, Regional Pressure setting (RPS), Standard pressure setting, or QFE as specified in checklist, or as appropriate

#### (c) Monitoring of flight progress, flight log, fuel usage endurance ETA assessment of track error and re-establishment of correct track and instrument monitoring

- Navigate by means of calculated headings, ground speed and time
- Make appropriate corrections to maintain track
- Achieve destinations or turning points within 3 minutes of estimated time of arrival (ETA)
- If appropriate configure engine for cruise/endurance performance in accordance with Flight Manual
- Adjust and monitor fuel consumption for range or endurance if appropriate
- Make regular checks for carburettor icing, if appropriate

#### (d) Observation of weather conditions and diversion planning

- Calculate heading, ground speed, ETA and fuel required during any unscheduled diversion
- Calculate Minimum Safe Altitude for track to new destination
- Navigate by means of calculated headings, ground speed and time
- Maintain the heading height and speed as computed in navigation log or advised to the Examiner within the prescribed limits
- Observation of weather conditions with timely, appropriate captaincy decisions

#### (e) Collision avoidance, lookout procedures (LAPL)

- Understand fully, and comply with, rules of the air (right of way etc).
- Maintain robust and regular look out



**(e) Use of navigation aids (where available) (PPL Only)**

- Select and identify appropriate radio/ navigation aids as required or nominated by examiner
- Carry out aircraft navigation instrument functional checks as appropriate (if not already completed)
- Locate and record the helicopter position by using navigation aids when required by the examiner
- Intercept and maintain given tracks or radials using the VOR or NDB. If the GNSS is to be used the examiner will nominate one of the functions to be used (e.g. VOR, map, route, 'direct to' etc)

**(f) ATSU liaison with due observance of regulations etc.**

- Set altimeter to QNH, Regional Pressure setting (RPS), Standard pressure setting, or QFE as specified in checklist, or as appropriate
- Maintain two way flight radio communication using correct phraseology throughout
- Obtain ATSU clearances and appropriate level of service
- Comply with ATSU clearances and instructions when required
- Display sound airmanship and cockpit management

**(Aerodrome arrival procedures)**

- Carry out appropriate checks and drills
- Set altimeters and cross check in accordance with check list, or as required
- Comply with published arrival procedure or clearance
- Maintain adequate lookout and collision avoidance
- Consider weather and wind conditions, landing surface and obstructions
- Plan and follow the circuit pattern and orientation with the landing area
- From the circuit pattern establish the recommended helicopter approach configuration adjusting speed and rate of descent to maintain a stabilised approach
- Select and achieve the appropriate touchdown area
- Complete all necessary checks and drills

**SECTION 4 – FLIGHT PROCEDURES AND MANOEUVRES**

Throughout this section the Examiner will be responsible for navigation and ATSU liaison, but the applicant will be responsible for look out, except when conducting IF (PPL Only), when the Examiner will be responsible for lookout.

**(a) Level flight, control of heading, altitude or height and speed**

- Establish straight and level flight at a nominated speed, height and heading
- Control helicopter altitude, speed and heading using visual attitude flying techniques
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(b) Climbing and descending turns to specified headings**

- Establish climb/descent and rate 1 turns onto nominated height and headings
- Control helicopter altitude, and heading using visual attitude flying techniques
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(c) Level turns with up to 30° of bank, 180° to 360° left and right**

- Establish steep turns (up to 30 degrees angle of bank) onto nominated headings whilst maintaining altitude/height and speed
- Control helicopter altitude, speed and heading using visual attitude flying techniques
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout
- Maintain lookout throughout

**(d) Level turns 180 degrees left and right by sole reference to instruments (PPL Only)**

The examiner will simulate inadvertent entry into cloud, by means of screens, visors or goggles and the applicant will be required to execute a rate one level turn on instruments through 180° to return the aircraft to VMC on a suitable heading. Applicants are expected to show consideration of the safety factors necessary for flight in IMC.

- Establish turns at rate 1, using the direction indicator, on to Examiners nominated headings whilst maintaining altitude/height and speed
- Demonstrate competence at manoeuvring the aircraft by sole reference to flight instruments
- Use an appropriate technique of instrument scanning and cross check to maintain flight within prescribes limits
- Maintain directional control and balance throughout
- Complete all necessary checks and drills throughout

**SECTION 5 - ABNORMAL AND EMERGENCY PROCEDURES (SIMULATED WHERE APPROPRIATE)**

The examiner shall select a minimum of 4 items from this section. These may be performed in sections 1 through 4 or as a separate section.

- Engine malfunctions including governor failure, carb/engine icing, oil systems, as appropriate
- Fuel system malfunction
- Electrical system malfunction
- Hydraulic system malfunction including approach and landing without hydraulics, as appropriate
- Main rotor/tail rotor malfunction (FFS or discussion only)
- Fire drills including smoke control and removal, as applicable
- Other abnormal and emergencies procedures as outlined in appropriate flight manual and with reference to Appendix 9 C to Part FCL, sections 3 and 4, including for ME helicopters: (a) simulated engine failure at take off (1) rejected take-off at or before TDP or safe forced landing at or before DPATO. (2) Shortly after TDP or DPATO. (b) Landing with simulated engine failure: (1) landing or go around following engine failure before LDP or DPBL (2) following engine failure after LDP or safe forced landing after DPBL

The applicant shall:

- Analyse emergency or abnormal situation and formulate appropriate plan
- Execute abnormal or emergency drills
- Plan and execute further actions to ensure safe recovery of helicopter, passengers and crew
- Use check list to confirm actions when time permits
- Make suitable emergency flight radio calls (given to Examiner but not transmitted)
- Inform ATSU of practice emergency situation and assistance required (where appropriate)

## APPENDIX 2 PPL SKILL TEST TOLERANCES TO BE APPLIED

Throughout the flight the helicopter should be flown as accurately as possible. The tolerances for operation are given as guidance to applicants but do not necessarily indicate that a 'failure' will result if any skill test limit is exceeded. Similarly, flight within the tolerances should not be achieved at the expense of smoothness and co-ordination. The Examiner will make allowance for adverse weather conditions such as turbulence and the handling qualities and performance of the helicopter used. The following is an extract from Part-FCL AMC2 FCL.235

PROFILE	PPL SKILL TEST
Height - normal forward flight	± 150 ft
Height - with simulated major emergency	± 200 ft
Height - hovering IGE	± 2 ft
Heading/Tracking of radio aids - normal flight	± 10°
Heading/Tracking of radio aids - with simulated major emergency	± 15°
Speed take-off / approach	-10 kt / +15 kt
Speed all other flight regimes	± 15 kt
Ground drift - T.O. & hover IGE	± 3 ft
Ground drift landing	No sideways/ backwards movement

## APPENDIX 3 Skill Tests – 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. Energy drinks may contain elevated levels of caffeine and may over stimulate and not provide the expected 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 guidance documents are available to you on the CAA web site which clearly set out what you are required to do.

- a. CAP1535 The Skyway Code
- b. Safety Sense Leaflet 24 Pilot health and performance
- c. Safety Sense Leaflet 31 Distraction and interruptions

Your instructors are there to help, guide you and deliver the necessary training to meet the test standard. Recurrent training and testing are key elements used within the aviation community to help maintain competence and improve situational awareness.