Safety Regulation Group
Personnel Licensing Department

Joint Aviation Requirements Flight Crew Licensing

Notes for the Guidance of Applicants taking the CPL Skill Test (Aeroplanes)

Standards Document 3, Version 07

Please note that this document is for guidance purposes only. The latest version of this document can be viewed on the Personnel Licensing Department website

Contents

Foreword

This document sets out the guidance for applicants taking the CPL Skill Test for the grant of a Commercial Pilots Licence (CPL) (Aeroplane). The information will help applicants prepare for this flight test, but it must be remembered that aspects mentioned here are of a general nature only and do not give precise details of each exercise or manoeuvre.

Nothing in the document is intended to conflict with the UK Air Navigation Order or other legislation, which remains the primary authority. Whilst every effort is made to ensure that all information in this document is correct, the CAA reserves the right to amend this document as required to reflect changes in practice required for the effectiveness of the test. The notes incorporate the UK licensing requirements for the CPL (Aeroplanes) and align with JAR-FCL 1.

This document is available for all those engaged in training and testing for the initial issue of the CPL. CAA Standards Documents are available at http://www.caa.co.uk/srg/licensing/fcl/document.asp?groupid=190 web site and can be downloaded to users without charge

If, after reading this document, you still have queries about the CPL Skill Test, please contact the Personnel Licensing Department, or one of the Regional Flight Test Centres:

Civil Aviation Authority
Personnel Licensing Department
Approvals Support
Aviation House
Gatwick Airport South
West Sussex RH6 0YR
Tel. no. 01293 573700 Fax no. 01293 573996

Regional Flight Test Centres

Bournemouth	01202 576621	Leeds	0113 2506625
Bristol	01275 475226	Oxford	01865 841199
Cranfield	01234 750111 Ext 5586		

Joint Aviation Authority (JAA)

The Civil Aviation Authorities of certain European States (the Joint Aviation Authorities (JAA)) have developed common aviation regulation requirements, known as Joint Aviation Requirements (JAR). Joint Aviation Requirements for Flight Crew Licensing (JAR-FCL 1) detail the requirements for all aeroplane pilot licences. JAR-FCL licences will enable the holder to pilot aeroplanes registered in any JAA member state.

Part 1 General Information

1.1 The CPL Skill Test shall be taken in a single pilot aeroplane. A successful CPL Skill Test may satisfy the requirements of a Licensing Skill Test for a Type or Class rating; provided that evidence is available that all of the training and testing requirements (including Technical Knowledge examination) have been completed, the appropriate Type or Class rating will be added to the applicant's licence.

1.2 The Type/Class rating issued from the CPL Skill Test will be valid for the period stated in JAR-FCL 1, 1.245.

1.3 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 licence or rating.*
- *"He / She". The pronoun 'he' is used throughout for ease of reading.*
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Part 2 Preparation, Provision of Aeroplanes and Test Booking

2.1 Flight Test Preparation

2.1.1 **Requirements**
It is important that most pre-test requirements are completed before entry into the Flight Test Programme. To ensure that test slots are not wasted, only the final elements of training should remain to be completed in the run down to the test date. A cancellation fee equivalent to the test fee may be charged if a test is cancelled due to a pre-test requirement not being completed.

2.1.2 **Ground examinations and training**
Applicants shall have passed the associated theoretical knowledge examinations before undergoing the flight test, although the CAA may make exceptions for applicants undertaking a course of integrated training. Instruction for the associated theoretical examinations shall have been completed before the flight test is taken.

2.1.3 **Flight training**
The applicant for the CPL Skill Test shall have satisfactorily completed any training necessary in the same type/class of aeroplane being used for the flight test. Applicants on modular courses shall not be presented for test until the syllabus requirements for CPL training have been met in full. On integrated courses only, the test may be flown with up to 5 hours less than the specified syllabus hours remaining. However, JAR-FCL minimum hours must be met before the issue of the licence.

2.1.4 **Certificate of Competence - Form F170A**
Applicants must have obtained a F170A before attempting the flight test. At the end of an approved course or period of training at a Flight Training Organisation (FTO) the F170A is issued by an authorised instructor at that FTO when he is satisfied that the required standard has been reached to pass the test. The F170A signatory must also certify that he has inspected the applicant's personal flying logbook and that the applicant has had the appropriate training/experience. Any previous attempts at the CPL Skill Test that the applicant has made shall also be indicated on form F170A. The FTO responsible for the applicant's training may also be required to produce his training record to the Examiner. The F170a will remain valid for two series. A new, flown F170a will be required before attempting the third or subsequent Series.

2.1.5 **Previous tests - F172**
Applicants who have previously attempted the CPL Skill Test must produce to the Examiner the previous test result form F172 that shows the failed items and any re-training requirement.

2.1.6 **Synthetic Training Devices (STDs)**
Certain approved courses may include training in STDs. Applicants should be aware that each simulator or training device must have been approved for the course by the CAA and is awarded a qualitative credit that specifies the maximum hours that applicants may claim towards their training.

2.1.7 **Medicals**
Applicants must be in possession of a JAA Class 1 medical certificate at the time of the test. 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 aware that, regardless of the outcome, he shall not be permitted to use his licence or rating until the certificate is revalidated. UK armed forces personnel must hold a valid and current, military aircrew medical category.

2.1.8 **Flight Radio Telephony Operator's (FRTO) Licence**
An applicant will be required to hold a FRTO licence or have passed the required examinations prior to attempting the CPL Skill Test.

2.2 Provision of Aeroplanes

2.2.1 Applicants must provide an aeroplane for the CPL Skill Test that has been approved by the CAA for the purpose. Details regarding the approval of aeroplanes are given in Standards Document 7, which is available on the CAA website.

2.2.2 Applications for the approval of an aeroplane shall be made to PLD Approvals Support at Gatwick. Further advice about aeroplane approval may be sought from the CAA Flight Examiners at the local Regional Flight Test Centres.

2.2.3 The Certificate for Aircraft Approval, form F176, will normally remain valid for 12 months. The FTO will be responsible for maintaining the approval. It is not normally possible to approve or re-approve an aeroplane on the day of the flight test.

2.2.4 The CAA shall not be responsible for the provision of insurance for the applicant taking the CPL Skill Test. However, it is necessary for the aeroplane operator to maintain an insurance policy, which adequately covers the aeroplane, applicant and the Examiner during the conduct of the flight test.

2.3 Test Bookings

2.3.1 Applications for test must be made through the FTO conducting the training, to PLD Approvals Support Section at Gatwick. Tests are normally arranged for a date within 10 days of the date of application. The fee for the CPL Skill Test must be paid at the time of booking. Applicants will be required to show evidence of payment for their test before a flight will be made.

Part 3 Conduct of the Test

3.1 Preview of Events

3.1.1 This section outlines those items that the Examiner considers as he constructs the profile. Section 3.2 gives details of the contents of the Initial Briefing; Sections 3.3 and 3.4 describe the Planning and Weather considerations that are required. Sections 3.5 to 3.7 detail the Main Briefing, Flight and Debrief.

3.1.2 The CPL Skill Test will be conducted by a Flight Examiner or Inspector authorised by the CAA. The JAA and the CAA set the test schedule and standards required. The examiner will conduct each test to meet the required schedule and achieve a meaningful, fair and valid assessment. He will give the applicant clear and unhurried instructions and will check that the applicant has understood what he has been asked to do.

3.1.3 Applicants will be assessed on all aspects of the aeroplane 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.

3.1.4 The CPL Skill Test is divided into six main sections:

Section 1 Departure

Section 2 Airwork

Section 3 En-route procedures

Section 4 Approach and landing

Section 5 Abnormal and emergency procedures

Section 6 Simulated asymmetric flight (Multi Engine aeroplanes only) plus any relevant items of the class/type rating skill test

3.1.5 All sections of the test are to be completed in the course of one flight. 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 adaptable, particularly if weather conditions, ATC 'slot' times etc., subsequently dictate a different scenario during the flight. The En-route section normally takes about 1 hour and 15 minutes, and the Airwork and Approach and Landing sections combined about 1 hour. Sections 5 and 6 may be combined, at the discretion of the Examiner, with Sections 1 through 4. The whole test could take up to 2 hours and 30 minutes.

3.1.6 The CPL Skill Test is very demanding. It is appreciated that even the most 'professional' or 'talented' pilots can make mistakes. This does not necessarily mean that a failure should result.

3.1.7 The following notes reflect the style and sequence of the briefing that the applicant may expect to hear. 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.

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 he is aware of the location of those planning resources that he will require. This briefing will normally take about 10 minutes.

3.2.2 At the pre-arranged time, commonly either 0830-0845 or 1230-1245, 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 with aeroplane rating (if applicable) and personal flying logbook (including evidence of any retraining if this is not the first attempt)*
- *A JAA medical certificate*
- *A form of identity; i.e. a valid passport/UK Forces ID card or airport pass*
- *Valid F170A, Certificate of Competence, or previous attempt form F172*
- *Current aeroplane documents including the Aeroplane Approval Certificate (F176) and Technical Log*
- *Two headsets - most Examiners will carry their own headset but a spare unit should be available for the flight*
- *Two copies of the authorised aeroplane check list*
- *Suitable approved screens, hood or goggles that deny the student external visual reference, and covers for the Artificial Horizon (A/H) and Horizontal Situation Indicator (HSI) or Direction Indicator (DI) for simulating limited panel*
- *Current publications for the routing and airfields*
- *Planning material including a blank flight log, map and navigation equipment*
- *Any relevant CAA correspondence such as a letter of assessment or retraining requirements*
- *Proof of payment for the test*

3.2.3 The examiner will outline the content of the skill test including the route and any other airfields to be used.

3.2.4 The applicant will be given the examiner's weight for his mass and balance calculations and the performance planning.

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 45 minutes (maximum 1 hour) depending upon the circumstances. The examiner will specify the time to meet for the main briefing.

3.2.6 It may be necessary for the Examiner to leave a written initial brief which will include all the required data to enable planning, and the time when the Examiner will conduct the main briefing.

3.3 Planning

3.3.1 Planning facilities will be available either at the Regional Flight Test Centre, FTO, or aerodrome flight planning facility. The examiner will check that the applicant is aware of where resources are. A quiet briefing room should be used so that the planning can be completed without interruption or distraction.

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

3.3.3 Current ATC and Met information should be obtained from the aerodrome flight planning facility. Any booking requirements must be made in adequate time for the flight.

3.3.4 A flight log must be prepared and the Examiner may require a copy. The log must include such items as:

- *Route (including flight to the 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*
- *Minimum Safe Altitudes*
- *Fuel (showing contingency fuel and space to plot fuel remaining at way points)*
- *Space for logging ATIS and clearances in a chronological order*

3.3.5 The route may require flight through airspace other than Class G airspace and consideration should be given to any special precautions during planning.

3.3.6 Pre-prepared flight logs, specially drawn routes shall not be used. Only routinely available planning information and documents are permitted. 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.

3.3.7 Applicants will be required to calculate take off and landing performance for the conditions prevailing, usually for the most limiting runway expected on the flight.

3.4 Weather Minima

3.4.1 The pre-flight preparation of the CPL Skill Test requires the applicant to assess the weather conditions and make his decision whether to proceed with the flight. In arriving at his decision an applicant must take into account the requirements of all the sections of the test. The flight must be conducted maintaining Visual Meteorological Conditions (VMC) throughout. Appropriate cockpit screening, hood or goggles will be used to simulate Instrument Meteorological Conditions (IMC) for those Sections/items of the test which are required to be flown by sole reference to instruments.

3.4.2 Applicants shall comply with the Aerodrome Operating Minima (AOM) given in AIP - AD 1.1.2 in accordance with JAR-OPS 1, or the minimum weather conditions specified in their FTO's Operations Manual, or other more stringent limitations if applicable (e.g. State Minima). 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.

3.4.3 Awareness of potential or actual engine and airframe icing conditions must be displayed and the applicant should be able to use correctly any anti/de-icing equipment fitted to the aeroplane. FTOs must ensure operating procedures are established for any aeroplane anti/de-icing equipment. The aeroplane must not be flown deliberately into icing conditions if this is contrary to the aeroplane flight manual.

3.5 Main Briefing

3.5.1 Once the applicant has completed the flight planning, the examiner will give a comprehensive briefing covering all aspects of the flight. During the briefing the applicant should ask questions at any time if he is unclear about any aspect. This briefing would normally take 30 minutes. The Examiner may not always brief in the sequence below, but will ensure to cover all the relevant items.

3.5.2 The briefing will include:

a. **The purpose of the flight**
The purpose of the flight is for the applicant to demonstrate his ability to plan and conduct a Public Transport Flight (simulated) whilst acting as pilot-in-command and operating as a single crewmember. The briefed profile shall be conducted in VMC and the flight will include simulated aeroplane emergencies and general instrument 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 who will act as the Safety Pilot when the applicant is flying by sole reference to instruments. The applicant is not to expect any assistance from the Examiner.

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 ATC but if ATC instructions conflict with the briefing these will take priority; the examiner will only intervene if he decides to do so for reasons of safety or clarification.

c. **Check lists**
Throughout the flight the applicant will be expected to use the approved aeroplane checklist. The applicant is to assume that the test is the first flight of the day. Airborne checks may be completed from memory, or from alternative notes, but must be in accordance with the checklist.

d. **Planning check**
The Examiner will assess the applicant's ability to check the appropriate aeroplane documents before flight. He will expect to be briefed by the applicant as to the weather suitability, including surface wind limitations and the methods of calculating runway cross wind components. The Examiner will check the flight navigation log and may take a photocopy. He 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 aeroplane's mass and balance and performance will be assessed.

e. **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 fly or manage the flight but he will advise what he wants to see the applicant do. Conditions, such as when navigation aids may be used, will be covered. Procedures for the use of screens, hood or goggles will be advised, including a reminder that, when these are in use, the Examiner will be responsible for lookout. During the briefing he will regularly check if the applicant has any questions and finally the Examiner will ask the applicant if he is quite clear what is required of him during the test.

f. **Aeroplane control**

The aeroplane must be operated in accordance with the Aircraft Flight Manual or Pilots Operating Handbook, as appropriate, and the operating procedures should follow those given in the FTO's Operations Manual. The Examiner will require confirmation of the various speeds and configurations to be used at each phase of flight. During the navigation section a representative cruise speed for the aircraft should be used as per normal aviation practice, however speeds may be adjusted to meet different conditions or circumstances and the Examiner must be advised of the new target speed at that time.

g. **Emergencies and abnormal conditions**

The Examiner will discuss the actions necessary should any actual emergency or abnormal condition occur during the flight. In general, the applicant is to control and handle any aeroplane emergency but the Examiner, as aeroplane commander, may elect to take control at any stage.

h. **Simulated Emergencies**

The Examiner will brief on how he will initiate simulated emergencies.

i. **Oral questioning**

The Examiner will ask practical questions relating to the flight on subjects such as aeroplane performance and technical aspects, icing procedures, emergency handling and the aeroplane documents.

3.5.3 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.

3.6 The Flight

3.6.1 From pre-flight to post-flight the applicant will be assessed on his general flight management and flying skills.

3.6.2 **Departure Procedure (Section 1)**

The applicant will be expected to carry out a safe and practical inspection of the aeroplane prior to flight, and must be aware of the servicing operations that he is entitled to carry out on the aeroplane. The applicant will be expected to proceed with the checks at a practical pace and with reference to the checklist. Expanded checklists are not permitted. Where visual checks are made these should be described to the Examiner only if requested. Pre-flight checks of the radio and navigation equipment should include all of the equipment that the applicant proposes to use during the flight. The Examiner must be briefed, as a passenger, on the position and method of the use of emergency exits, safety belts, safety harnesses, oxygen equipment, life jackets, and all other devices required by the ANO and intended for use by passengers in the case of emergency. The applicant must instruct the Examiner in the emergency action which he should take. Passenger briefing cards are acceptable but the examiner may ask questions.

3.6.3 The applicant must be prepared to deal with actual or simulated Abnormal or Emergency Operations at any stage. The Examiner may simulate, for example, an engine fire during start up.

3.6.4. When ready for departure the applicant should assess the crosswind component and confirm this to the Examiner. The departure should comply with any instructions given by ATC.

3.6.5 **The En-Route Procedures (Section 3)**

Section 3 is usually flown after Departure to ensure an efficient flow to the flight. During this section of the flight the aeroplane is assumed to be on a passenger carrying operation under Visual Flight Rules. The first navigation leg should normally be planned directly from the departure airfield to the destination unless good airmanship dictates otherwise and it should be flown in a commercially expeditious manner. When the aeroplane has achieved cruising altitude, normal cruising speed and is on heading for the first destination, the applicant should confirm to the Examiner the heading, altitude, and ETA, thereafter advising any changes. For example, "2 minutes late at my halfway point - the revised ETA is now. . ." Corrections to heading or ETA shall be calculated rather than based on track crawling, impulse or inspiration. The applicant is expected to navigate by visual positioning in a practical way, not to feature crawl. Numerous heading or altitude changes that are the result of poor flying may constitute a fail in this section. The applicant is expected to make changes to his heading and ETA in order to correct deviations from his plan. Radio navigation aids may not be used during the first leg of the en-route section although they may be tuned and identified in anticipation of their use later in the flight.

3.6.6 At or before the first destination the applicant will be instructed to carry out a diversion directly (unless good airmanship dictates otherwise) to an alternative destination or airfield. Although this is not an emergency procedure, planning and execution of the diversion should again be carried out in an expeditious manner. A prominent alternative destination or airfield will be pinpointed on the applicant's chart. The applicant may be asked to commence the diversion at or before the original destination. The applicant should nominate his heading, altitude and ETA for the diversion and again use recognised techniques and visual positioning to navigate to the second destination.

3.6.7 During the diversion leg the applicant may supplement visual navigation techniques with the use of VDF, VOR, NDB, DME and/or GPS information. Only GPS raw data (latitude and longitude or range and bearing from a waypoint) may be used. GPS map displays or "GOTO" facilities will not be permitted. The examiner will deny the use of any aid that would allow the applicant to track directly to the diversion destination. If navigation aids are used, the applicant will be assessed on their correct use.

3.6.8 Demonstration of radio aid tracking in VMC will be required at some stage; the Examiner will decide when to ask for this exercise to ensure efficient use of time and airspace. He will nominate the facility to be used and the track to be intercepted and maintained. As this item requires the demonstration of satisfactory skill in heading selection and drift assessment, it must be completed using an RMI, RBI, HSI or CDI display. This is a visual flying exercise using radio aids to assist navigation.

3.6.9 **Airwork (Section 2)**

Instrument Airwork (Item 2e) and the Position Fix (item 3g).

At a suitable stage during the test, the Examiner will erect the screens or ask the applicant to don the hood/goggles to simulate inadvertent entry into instrument meteorological conditions (IMC). The applicant will be expected to maintain control of the aeroplane and take prompt, appropriate action to continue the flight safely whilst attempting to regain VMC. Depending on the location and actual weather conditions prevailing, the Examiner may accept a verbal briefing from the applicant on the actions he intends to take. The applicant should not anticipate this however; he will be expected to initiate such actions until directed otherwise.

The applicant will then be briefed to fly the instrument airwork items. This is a safety module to ensure competence in instrument flight should a period in IMC become unavoidably protracted. The Examiner will be responsible for lookout, ATC liaison and navigation.

Full Panel: Flight by reference to full panel instruments will include level flight in the cruise configuration, level turns at rate one or bank angles up to 30° and climbing and descending turns at given rates and speeds.

After the full panel IF airwork items above, the applicant will be required to fix his position whilst still in (simulated) IMC. The IMC fix is a significant event; the applicant must demonstrate the correct use of appropriate facilities to plot a fix on his chart, and enter detail of it in the flight log. The fix shall be made using a combination of range and/or bearing information from one or more of the following facilities: VDF, VOR, NDB, DME. In the event that none of these aids are available, GPS may be used, but only to obtain range and/or bearing from a waypoint. If GPS is used, the applicant must demonstrate correct identification of a facility at some other stage of the test eg during the tracking exercise.

Limited Panel: Flight by reference to limited panel instruments will include straight and level flight at given speeds, level turns onto given headings at rate one using timed or compass turns and recovery from unusual attitudes to trimmed straight and level flight with minimum loss or gain of height.

On completion of all of the instrument airwork, and the IMC fix, the Examiner will remove the screens or ask the applicant to doff the hood/goggles. The applicant will be responsible for lookout and collision avoidance throughout the remainder of the flight.

Visual Airwork

The Examiner will remind the applicant of the visual airwork exercises to be flown. During the visual airwork the Examiner will be responsible for ATC liaison and navigation. The applicant will be briefed to operate in an area bounded by prominent landmarks pointed out by the Examiner. The applicant will be expected to display appropriate airmanship and take due account of the weather conditions whilst demonstrating the exercises. The unrestricted use of navigation aids will be permitted if required to aid situational awareness throughout this section.

The following items will be flown:

a. Straight and level flight at various airspeeds and configurations. Climbing and descending at various speeds and rates including best angle (Vx) and best rate (Vy).

b. Flight at critically low airspeeds and slow flight manoeuvres.

Note: Slow flight requirements may be assessed during one or more of the following exercises: Vx climb, steep gliding turns (SE only), achievement and recovery from Critical Speed (ME only) and low level bad visibility circuit.

c. Turns, including turns in landing configuration; steep turns at not less than 45° bank, steep turns in a gliding configuration (SE aeroplanes only).

d. Flight at critically high airspeeds (approaching VNE) and recognition of, and recovery from, spiral dives. These manoeuvres are often combined; the Examiner may put the aeroplane into a steep dive or a spiral dive with speed increasing rapidly and hand control to the candidate to initiate appropriate recovery action either to straight and level flight or into a climb.

e. Recognition and recovery from stalls. A series of stalls will be required and the examiner will brief the sequence of these both pre-flight and in the air.

Normally the first stall will be a clean, fully developed stall entering from straight and level flight, with the throttle(s) closed. The Examiner will nominate when the recovery should begin.

The second stall will be from an approach configuration, with approach flap setting, gear down and low power. The stall should be initiated from a turn (level or descending with about 20° AOB) and the applicant should recover at the first symptom of the approaching stall.

The third stall will be in a landing configuration with full flap, gear down, and low power. The stall should be initiated from straight flight as if established on final approach to land (i.e. not climbing); the applicant must recover at the first symptom of the approaching stall.

All recoveries shall be made with the minimum loss of height and returning to a clean climb configuration at Vy maintaining directional control. (The examiner may nominate a heading to be achieved after recovery).

3.6.10 **Approach and Landing (Section 4)**

This section may be flown at the base aerodrome or at an alternate aerodrome nominated by the Examiner before flight. Applicants will be responsible for ATC liaison and will be expected to carry out a safe and expeditious join to the circuit, using any practical navigation means available. This involves entry to the most convenient point in the circuit with the aeroplane in the appropriate configuration and at the correct speed. Applicants will be expected to carry out a number of approaches and landings (usually 'touch and go' landings) involving the following:

a. Normal landing.

b. Cross wind landing (when practical).

c. Go around from a low height/altitude.

d. Short field or Performance landing. This may be combined with a bad visibility/low level circuit as part of the assessment of low speed handling. In order to assess this exercise the Examiner may limit the amount of runway available.

e. Approach and landing without the use of power (glide approach). The examiner may limit the amount of runway available.

f. Approach and landing without the use of flaps (flapless).

g. Post flight action. The applicant will be responsible for taxying and parking, after landing and shut down checks, and the completion of aeroplane documentation.

3.6.11 **Abnormal and Emergency Operations (Section 5)**

The items of this section may be combined with Sections 1 through 4. The Examiner will simulate an abnormal or emergency situation; the applicant is expected to carry out the appropriate emergency actions. If drills involve the operation of fuel shut off valves, mixture controls, magnetos or any critical engine control, operations should be simulated by "touch actions" only. Emergency radio calls should be simulated. Applicants should not assume that any practice emergency is complete until told by the Examiner. This section will include:

- Simulated engine failure after take off (EFATO)
- Fire drill
- Engine malfunctions
- Equipment malfunctions
- Practice Forced landings (PFL);

The applicant will be expected to fly a practice forced landing (PFL) following either a simulated engine fire or failure; he should point out his chosen landing area and continue as if to land until told to go-around by the Examiner.

3.6.12 **Simulated Asymmetric Flight (Section 6) plus any relevant items of the class/type rating skill test (Section 6)**

The items in this Section may be combined with Sections 1 through 5. The Examiner will simulate an abnormal or emergency situation; the applicant should respond in the same manner as described in para 3.6.11 (Section 5), except in the case of Item d – Engine shutdown and restart – where full drills should be carried out. Items a, b and c are applicable to multi engine aeroplanes only. Item d is applicable to multi engine aeroplanes only. Items f and g are applicable to all aeroplanes.

a. Simulated engine failure after take off (EFATO). At a safe height after take off the Examiner will simulate an engine failure by closing one of the throttles. The applicant will be expected to retain control of the aeroplane, identify the 'failed' engine and carry out the appropriate engine shut down and propeller feathering procedures using touch drills. On completion of these drills, the Examiner will be responsible for setting zero thrust and the management of the (simulated) failed engine.

b. Asymmetric approach and go around. The applicant will be expected to carry out a circuit to go-around under asymmetric power.

c. Asymmetric approach and full stop landing. The applicant will be expected to carry out a circuit to land under asymmetric power.

d. Engine shutdown and restart. The applicant will be expected to carry out an actual engine shutdown and restart.

e. ATC liaison and compliance, RT procedures and airmanship.

f. Operation of aircraft systems such as auto-pilot, pressurisation, de-icing and anti-icing systems if applicable. Rejected take-off (at a reasonable speed).

g. Oral questions relevant to the aeroplane used for the test.

Applicants using a centre-line thrust multi engine aeroplane will be expected to complete items a. to d. of this section on one engine but will not, obviously, be under asymmetric power. If a class rating is issued on the basis of a successful Skill Test on such an aeroplane, it will be restricted to centre-line thrust aeroplanes only.

Applicants carrying out the test on a multi-engine aeroplane will not be expected to fly the steep gliding turns in section 2, the glide approach in section 4 or the practice forced landing at section 5.

3.6.13 **Flight Simulator or Flight & Navigation Procedure Trainer**

The following items may be performed in an (FNPT II):

a. Airwork (Section 2) - items c and e (iii)

b. Abnormal and Emergency Procedures (Section 5) - all items

c. Simulated Asymmetric Flying (Section 6) - all items

The simulator or FNPT II must be approved for the purpose and of the same aeroplane type as used for the remainder of the skill test.

3.7 Post Flight Action

3.7.1 Post-flight the Examiner will conduct a debriefing and discuss the applicant's performance The Examiner may also ask questions in order to clarify certain items or actions

3.7.2 Notification of the result will be given on the test result form. 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 how to improve upon those aspects of the test that were unsatisfactory. The applicant will be asked to sign the form as having understood the result. The result form will be given to the applicant and copies forwarded to PLD Approvals Support and the Chief Flight Examiner (CFE) at Gatwick.

3.7.3 Flight Test Standards. Appendix 2 gives a list of the criteria upon which the Examiner will base his assessment. The criteria are arranged to reflect the order of items listed on the Test Report form FCL 172.

3.7.4 Should an applicant have cause for concern about the conduct of the flight test then such comment should be made in writing to the CFE. Details of the appeal procedure are given at Part 4.3.

Part 4 Assessment Criteria and Administrative Procedures

4.1 Assessment Criteria

4.1.1 The flight will be assessed as a simulated Public Transport flight. The safety and comfort, reassurance and briefing of passengers must be considered. The applicant shall demonstrate ability to:

a. Operate the aeroplane 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 aeroplane at all times in a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

4.1.2 It is impossible to list all the errors, which would constitute a failure of the test, but non-compliance with the Test Standards in Appendix 2 gives a guide.

4.1.3 Throughout the flight the aeroplane 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.

4.1.4 The Examiner will make allowance for adverse weather conditions such as turbulence and the handling qualities and performance of the aeroplane used. The CPL Skill Test Tolerances shown at Appendix 3 are for general guidance.

4.2 Administrative Procedures

4.2.1 Each time an applicant undertakes a CPL Skill Test it is known as an 'Attempt'. 'Attempts' are grouped into 'Series'. There are up to two Attempts in each Series. There is no limit to the number of Series that may be taken.

4.2.2 A PASS will be awarded when all sections of the test are passed within a series.

4.2.3 An applicant failing only one section at the first attempt in a series shall have gained a PARTIAL PASS. The second attempt will always require the applicant to retake the Departure (Section 1) and the section failed at the first attempt.

4.2.4 A FAIL will be awarded if more than one section is failed at the first attempt in a series, or if any item is failed at the second attempt of a Series.

4.2.5 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 the completion of only those sections or items not previously flown; 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, he may forfeit the test fee and a further fee will be required before the next test.

4.2.6 The FAIL as defined above will conclude that Series. Before applying for a further attempt in the next (second) Series, the applicant will be required to:

a. Complete the mandatory retraining prescribed by the Flight Examiner. The requirement will be indicated on the Flight Test Report Form, (F172).

b. Present his personal flying logbook to the Examiner. The entries covering the retraining requirement must be certified by the CFI of the FTO giving training.

4.2.7 Should an applicant fail the second or subsequent Series, the examiner will notify the CFE or his nominated Deputy using Form 112. The CFE will decide on the re-training necessary based on the reasons for failure of all previous attempts. The CFE will appoint a CAA Flight Examiner to conduct the third series and any subsequent tests. No further test attempt can be made until the applicant receives notification from the CAA. The CFE will also decide the requirements following any subsequent series of unsuccessful attempts. A new, flown F170A is required before the third and subsequent series of tests.

4.2.8 If all sections of the test have not been completed within the 6 month period of validity of the F170A then a further F170A is required.

4.2.9 The second attempt in a series shall be forfeited if the six month period of validity of the F170A has expired.

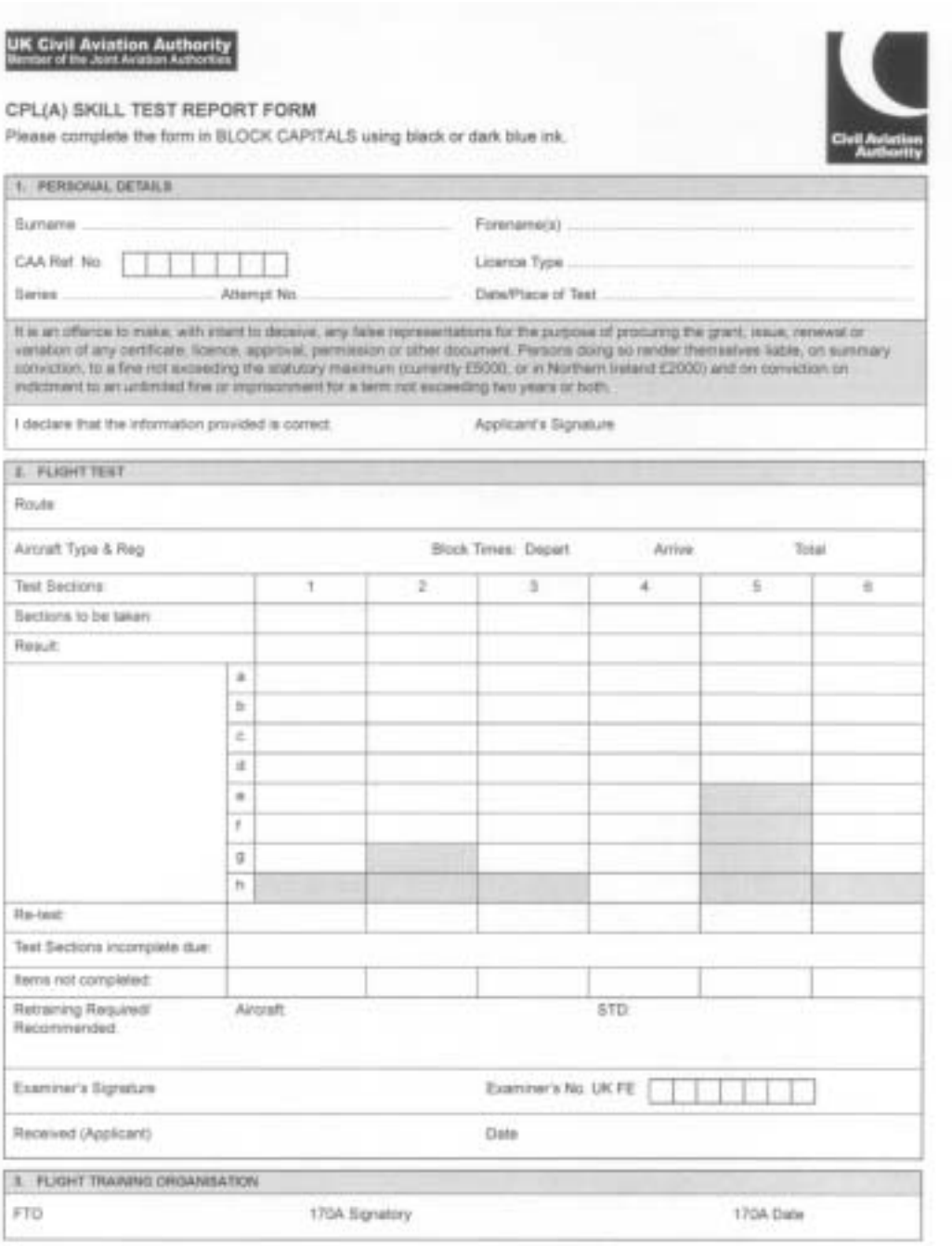
4.3 Applicant's Appeal Procedure

4.3.1 The test result, F172 (Page 1, reverse), 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 he is required to pass before he is granted or may exercise the privileges of a personnel licence may within 14 days of being notified of his 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. Should the applicant have concern about the conduct of the CPL Skill Test he should write to the Chief Flight Examiner who will provide guidance on the Appeal Procedure.

Appendix 1 Flight Test Form FCL 172



UK Civil Aviation Authority
Member of the Joint Aviation Authorities

Civil Aviation Authority

CPL(A) SKILL TEST REPORT FORM

Please complete the form in BLOCK CAPITALS using black or dark blue ink.

1. PERSONAL DETAILS

Surname ..... Forename(s) .....

CAA Ref. No ☐☐☐☐☐☐☐ Licence Type .....

Series ..... Attempt No. ..... Date/Place of Test .....

It is an offence to make, with intent to deceive, any false representations for the purpose of procuring the grant, issue, renewal or variation of any certificate, licence, approval, permission or other document. Persons doing so render themselves liable, on summary conviction, to a fine not exceeding the statutory maximum (currently £5000, or in Northern Ireland £2000) and on conviction on indictment to an unlimited fine or imprisonment for a term not exceeding two years or both.

I declare that the information provided is correct. Applicant's Signature

2. FLIGHT TEST

Route

Aircraft Type & Reg Block Times: Depart Arrive Total

Test Sections		1	2	3	4	5	6
Sections to be taken							
Result:							
	a						
	b						
	c						
	d						
	e						
	f						
	g						
	h						
Re-test:							
Test Sections incomplete due:							
Items not completed:							

Retraining Required/ Recommended: Aircraft: STD:

Examiner's Signature Examiner's No. UK FE ☐☐☐☐☐☐☐

Received (Applicant) Date

3. FLIGHT TRAINING ORGANISATION

FTO 170A Signatory 170A Date

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Civil Aviation Authority Regulation 6

Regulation 6(5) of the Civil Aviation Authority Regulations, 1991 as follows: Any person who has failed any test or examination which he is required to pass before he is granted or may exercise the privileges of a personnel licence may within 14 days of being notified of his 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 of the result is not enough.

SECTION 1. PRE FLIGHT OPERATIONS AND DEPARTURE		SECTION 4. APPROACH AND LANDING PROCEDURES	
a	Pre-flight including: Documentation, Mass and balance determination, Weather brief	a	Arrival procedures, altimeter setting, checks, lookout
b	Aeroplane inspection and servicing	b	ATC liaison: compliance, R/T procedures, airmanship
c	Taxying and take-off	c	Go around action from low height
d	Performance considerations and trim	d	Normal landing, crosswind landing (if suitable conditions)
e	Aerodrome & traffic pattern operations	e	Short field landing
f	Departure procedure, altimeter setting, collision avoidance (lookout)	f	Approach and landing with idle power (single-engine only)
g	ATC liaison - compliance R/T procedures, airmanship	g	Landing without use of flaps
		h	Post flight actions

SECTION 2. GENERAL AIRWORK		SECTION 5. ABNORMAL AND EMERGENCY PROCEDURES*	
a	Control of the aeroplane by external visual reference, including straight and level, climb, descent, lookout		*This section may be combined with Sections 1 through 4*
b	Flight at critically low airspeed including recognition of and recovery from incipient and full stalls	a	Simulated engine failure after take-off (at a safe altitude), fire drill
c*	Turns, including turns in landing configuration: Steep turns 45 degrees	b	Equipment malfunctions Including alternative landing gear extension, electrical and brake failure
d	Flight at critically high airspeeds, including recognition of and recovery from spiral dives	c	Forced landing (simulated)
e	Flight by reference solely to instruments, including:-	d	ATC liaison: compliance, R/T procedures, airmanship
	(i) Level flight, cruise configuration, control of heading, altitude and airspeed		
	(ii) Climbing and descending turns with 10 degrees - 30 degrees bank		
	(iii) Recoveries from unusual attitudes		
	(iv)* Limited panel instruments		
f	ATC liaison - compliance, R/T procedures, airmanship		

SECTION 3. EN ROUTE PROCEDURES		SECTION 6. SIMULATED ASYMMETRIC FLIGHT AND RELEVANT CLASS/TYPE ITEMS*	
a	Control of aeroplane by external visual reference, including cruise configuration Range/Endurance considerations		*This section may be combined with Sections 1 through 5*
b	Orientation, map-reading	a	Simulated engine failure during take-off (at a safe altitude unless carried out in a flight simulator)
c	Altitude, speed, heading control, lookout	b	Asymmetric approach and go-around
d	Altimeter setting. ATC liaison - compliance, R/T procedures, airmanship	c	Asymmetric approach and full stop landing
e	Monitoring of flight progress, flight log, fuel usage, assessment of track error and re-establishment of correct tracking	d	Engine shutdown and restart
f	Observation of weather conditions, assessment of trends, diversion planning	e	ATC liaison - compliance, R/T procedures, airmanship
g	Tracking, positioning (NDB or VOR), identification of facilities (instrument flight). Implementation of diversion plan to alternate aerodrome (visual flight)	f	As determined by the Flight Examiner - any relevant items of the class/type rating skill test to include (if applicable) i) Aeroplane systems including handling of autopilot ii) Operation of pressurisation system iii) Use of de-icing and anti-icing system iv) Rejected take-off at a reasonable speed
		g	Oral questions

NOTE: *May be performed in a FNPTII or a flight simulator.
Section 6, items d, f & g are relevant items of the class/type rating skill test.

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REASONS FOR FAILURE		
Section	Sub Section	

Examiner's Signature	Name (block capitals)

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Appendix 2 CPL 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 F172 a copy of which is shown at Appendix 1. In the interests of openness 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 flying and operating the aeroplane to the best of their ability. The application of the test standards is the responsibility of the Examiner.

Examiners' Notes

These guidance notes are published to establish the test standard required for the JAA CPL Skill Test. Any flight test can only be a 'snapshot' of a pilot's ability and therefore, to ensure overall pilot competence, FTO's Flight Instructors are expected to use these standards when preparing applicants for the test. The applicant for a CPL Skill Test must exhibit a significantly higher level of knowledge and skill than is required for the PPL Skill Test. The Examiner must apply the standards evenly and fairly and without prejudice. The flight however, may be conducted in any sequence to achieve a complete and efficient test.

Section 1 - Departure

a. Pre-flight

- *Check all documents required for a Public Transport flight are carried and correct*
- *Complete mass and balance schedule*
- *Obtain and assess all elements of the prevailing and forecast weather conditions*
- *Complete an appropriate flight navigation log and chart*
- *Determine that the aeroplane is correctly fuelled for the flight*

b. Aeroplane inspection and servicing

- *Check aeroplane serviceability record and technical log*
- *Perform all elements of the aeroplane pre-flight inspections as detailed*
- *Confirm that the aeroplane is in a serviceable and safe condition for flight*
- *Check and complete all necessary documentation*

c. Taxying and Takeoff

- *Complete an appropriate passenger emergency procedure briefing for the Examiner*
- *Complete all recommended taxying checks and procedures*
- *Comply with airport markings and signals*
- *Follow ATC instructions*
- *Complete all departure checks and drills including engine operation*
- *Obtain ATC departure clearance*
- *Confirm any aeroplane performance criteria including crosswind condition*
- *Position the aeroplane correctly for take off and advance the throttle(s) to take off power with appropriate checks*
- *Use the correct take off technique using the recommended speeds for rotation/lift-off and initial climb*
- *Ensure a safe climb and departure adjusting power and aeroplane configuration as appropriate*
- *Complete all necessary after take off checks*

d. Performance considerations. Trim

- *Before flight calculate aeroplane performance criteria and limitations applicable to runway and forecast weather conditions and make adjustments if required for actual conditions before take-off*
- *Maintain the aeroplane in trim*

e. Aerodrome and traffic pattern operations

- *Use of charts or other published information as required*
- *Execute a safe departure in accordance with clearance and with due regard for other air traffic*

f. Departure procedure, altimeter setting, collision avoidance

- *Use correct lookout techniques*
- *Observe the Rules of the Air and ATC Regulations*
- *Maintain directional control and drift corrections throughout*
- *Follow any noise routing or departure procedures and ATC instructions*
- *Complete all necessary climb checks*

g. ATC Liaison - compliance RTF procedures, Airmanship

- *Demonstrate standard RTF procedures and phraseology*
- *Demonstrate compliance with ATC instructions*
- *Operate on the ground and in the air with particular regard for passenger safety and comfort*

Section 2 - Airwork

a. Control of the aeroplane by external visual reference

- *Demonstrate control by visual attitude whilst maintaining a correct lookout technique*
- *Demonstrate correct techniques for visual flight manoeuvring within the specified limits*
- *Maintain balance and trim*

b. Flight at critically low airspeed including recognition of, and recovery from, incipient and full stalls

Slow Flight

- *Consider all safety checks before the manoeuvres where necessary*
- *Select and stabilise the aeroplane at a nominated low airspeed above the stall speed whilst maintaining balance, trim and lookout. Maintain specified altitude/level, heading and speed as specified by the Examiner*
- *Maintain safe bank angles, speed, and altitude (if required) during turning and complete turns onto specified headings*

Stalling

- *Consider safety checks before stalling*
- *Establish the stall entry as appropriate from straight or turning flight and select the required aeroplane configuration*
- *Maintain heading (or bank angle 10°-30° as required) to stall entry*
- *Recognise the symptoms of the stall or approaching stall and initiate the correct recovery action as directed by the Examiner*
- *Recover with minimum height loss and return to a clean configuration climb at Vy*
- *Complete all necessary checks and drills*
- *Maintain lookout throughout*

c. Turns, including turns in landing configuration

- *Demonstrate the correct lookout technique before, during and after turns*
- *Establish and maintain throughout the turn the nominated altitude/level and speed*
- *Co-ordinate the entry to steep turns to achieve at least 45° bank and maintain the turn through at least 360 degrees*
- *Co-ordinate the recovery from turns to straight and level flight on the specified heading or as appropriate without loss/gain of height*
- *Whilst gliding demonstrate awareness of increased stalling speed in manoeuvre (not multi-engine aeroplanes)*

d. Flight at critically high airspeed including recognition of, and recovery from, spiral dives

- *Recognise the manoeuvre and initiate prompt and correct recovery action*
- *Continue recovery action without exceeding any aeroplane limitations*
- *Recover with minimum height loss*
- *Complete all necessary checks and drills*

e. Flight by reference solely to instruments including:

(i) Level flight, cruise configuration, control of heading, altitude and airspeed

(ii) Climbing and descending turns with 10°-30° bank

(iii) Recoveries from unusual attitudes, limited panel instruments, turns

- *Demonstrate competence at manoeuvring the aeroplane by sole reference to the flight instruments as specified by the Examiner*
- *Use an appropriate technique of instrument scanning and cross checking to maintain flight within the prescribed limits*
- *Establish rate one level turns onto specified headings using limited panel instruments*
- *Execute recovery on limited panel instruments from unusual attitudes with minimum height loss, applying the correct recovery techniques within aeroplane limitations, to return the aeroplane to stabilised level flight*
- *Maintain the aeroplane within the prescribed limits throughout*
- *Complete all necessary checks and drills and general cockpit management*

f. ATC liaison-compliance, RTF procedures. Airmanship

During Section 2 the Examiner will be responsible for most of the ATC liaison and navigation but this does not absolve the applicant from taking responsibility for the management of his aeroplane. The Examiner will be responsible for lookout (collision avoidance) when the IF screens, hood or goggles are in place. The applicant will be responsible for lookout (collision avoidance) and for making due allowance for weather conditions at all other times

.

Section 3 - En-Route Procedures

a. Control of aeroplane by external visual reference including cruise configuration and consideration of range/endurance

- *Control aeroplane using visual attitude flying techniques*
- *Configure airframe and engine(s) for cruise/endurance performance in accordance with Flight/Operations Manual*
- *Adjust and monitor fuel consumption for range or endurance as appropriate*

b. Orientation, map reading

- *Identify position visually by reference to ground features and map*

c. Altitude, speed, heading control, lookout

- *Maintain the heading height and speed as computed in navigation log or advised to the Examiner within the prescribed limits*

d. Altimeter setting, ATC liaison - compliance, RTF procedures, Airmanship

- *Set and cross check altimeters to QNH, Regional Pressure setting RPS, Standard pressure setting, or QFE as specified in checklist, Ops Manual or as appropriate*
- *Maintain two way RTF communication using correct phraseology throughout*
- *Obtain ATC clearances and appropriate level of service*
- *Comply with ATC clearances and instructions when required*
- *Display sound airmanship and cockpit management*
- *Complete all necessary checks and drills*

e. Monitoring of flight progress, flight log, fuel usage, assessment of track error and re-establishment of correct tracking

- *Complete all elements of VFR planning for the route prescribed with particular reference to planned altitudes and safe levels of operation*
- *Maintain a navigation log and radio log by recording all pertinent information such that the whole route may be reconstructed if necessary after flight*
- *Navigate by means of calculated headings, ground speed and time*
- *Make appropriate adjustment to maintain, regain or correct back to track*
- *Achieve destinations or turning points within 3 minutes of estimated time of arrival (ETA)*

f. Observations of weather conditions, assessment of trends, diversion planning

- *Demonstrate correct understanding and application of the VFR*
- *Amend plan to avoid deteriorating weather and maintain VMC or consider discontinuing navigation route if unable to maintain VMC*
- *Calculate heading, ground speed, ETA and fuel required during any unscheduled diversion*
- *Take prompt, appropriate action to continue the flight safely following inadvertent entry into IMC*
- *Demonstrate correct understanding and application of the IFR (as applicable to flight in UK airspace) eg minimum altitude/level and, where appropriate, correct quadrantal cruising levels*

g. Tracking and positioning (NDB or VOR) identification of facilities (simulated instrument flight). Implementation of diversion plan

- *Select and identify appropriate radio and navigation aids as required or nominated by Examiner*
- *Intercept and maintain given tracks or radials using the navigation aids nominated (under VFR)*
- *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*
- *Locate and record the aeroplane position by using radio navigation equipment when required by the Examiner (under simulated instrument flight)*

Section 4 - Approach and Landing

a. Arrival procedures, altimeter setting, checks, lookout

- *Carry out appropriate checks and drills*
- *Set altimeters and cross check in accordance with check list, Ops Manual or as required*
- *Comply with published arrival procedure or clearance*
- *Maintain adequate lookout and collision avoidance*

b. ATC liaison and compliance, RTF procedure, Airmanship

- *Obtain and comply with ATC clearances using correct RTF phraseology*
- *Adjust circuit pattern/speed to maintain spacing with other traffic in the landing pattern*
- *Maintain awareness of other traffic through RTF and lookout*

c. Go-around action from low height

- *Execute a timely decision to discontinue the approach either when instructed or as considered necessary*
- *Apply appropriate power and control aeroplane attitude to initiate a safe climb maintaining balance and heading*
- *Adjust configuration and speed to achieve a positive climb at Vy or Vx as appropriate*
- *Maintain take off power until a safe manoeuvring altitude is reached and then adjust to a normal climb configuration and speed*
- *Complete all necessary checks and drills*

d. Normal landing, crosswind (if suitable conditions)

Standard for all types of approach and landing

- *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 aeroplane approach configuration adjusting speed and rate of descent to maintain a stabilised approach*
- *Select and achieve the appropriate touchdown area at the recommended speed*
- *Adjust descent and round out (flare) to achieve a safe landing with little or no float with appropriate drift and crosswind correction*
- *Maintain directional control after touchdown and apply brakes for a safe roll out*
- *Complete all necessary checks and drills*

e. Short Field Landing

f. Approach and Landing with idle Power

NB: Not required if flight test is conducted in a multi-engine aeroplane

g. Landing without use of flaps

h. Post Flight Actions

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

Section 5 - Abnormal and Emergency Procedures

Items from this section may be performed in sections 1 to 4.

a. Simulated engine failure after takeoff (at a safe altitude), fire drill

- *Execute emergency drills as 'touch drills' without error (see section 3.6.11)*
- *When time permits, investigate possible cause of engine failure and take corrective action*
- *Plan and execute further actions to ensure safe recovery of aeroplane, passengers and crew*

b. Equipment malfunctions including: alternative landing gear extension; electrical failure; brake system failure

- *Execute abnormal or emergency drills*
- *Plan and execute further actions to ensure safe recovery of aeroplane, passengers and crew*

c. Forced landing (simulated) - single engine aeroplanes only

- *Choose a suitable landing area with due regard for landing surface, surroundings and wind velocity*
- *Plan descent to achieve a safe approach to chosen landing area such that a safe landing would be likely*
- *Carry out checks and drills*

d. ATC liaison: compliance, RTF procedures, Airmanship

- *Make suitable emergency RTF calls (given to Examiner but not transmitted)*
- *Inform ATC of practice emergency situation and assistance required (where appropriate)*
- *Analyse emergency or abnormal situation and formulate appropriate plan*
- *Use check list to confirm actions when time permits*

Section 6 - Simulated Asymmetric Flight

This section is only required if the flight test is conducted in a multi engine aeroplane (not centre line thrust).

Items from this section may be performed in Sections 1 to 5.

a. Simulated engine failure during takeoff and approach (at a safe altitude unless carried out in a flight simulator or FNPT II)

- *Maintain control of aeroplane direction and speed following simulated engine failure*
- *Identify failed engine*
- *Complete checks and drills*
- *Establish safe climb at VYSE in trim*

b. Asymmetric approach and go-around

- *Fly a visual circuit with asymmetric power to establish a final approach*
- *Maintain a stable (trimmed) approach in the correct configuration*
- *Make a clear decision to land/go-around at or before appropriate asymmetric committal altitude/height (ACH)*
- *At ACH or when instructed, carry out a go-around to establish a safe climb in the recommended configuration at VYSE*

c. Asymmetric approach and full stop landing

- *Fly a visual circuit with asymmetric power to establish a final approach*
- *Maintain a stable (trimmed) approach in the correct configuration*
- *Make a clear decision to land at or before ACH*
- *Execute a safe landing at the recommended speed/configuration in the appropriate landing area*

d. **Engine shutdown and restart (if applicable)**

- *Control aircraft in heading, altitude, speed and balance during full engine shut down at safe altitudes, carry out appropriate drills and checks*
- *Control aircraft heading, height and speed during re-start drills according to check list and re-establish aircraft to symmetric cruising flight*

e. ATC liaison: compliance, R/T procedures, Airmanship

- *Inform ATC of abnormal flight condition and any assistance required*
- *Comply with ATC procedures and instructions*
- *Adjust traffic pattern with due regard to weather, surface conditions, obstructions and other air traffic*
- *Adjust configuration and circuit pattern with regard to aeroplane performance*
- *Complete necessary checks and drills*

f. As determined by the Flight Examiner - any relevant items of the class/type rating skill test to include, if applicable:

i. Aeroplane systems including handling of autopilot

ii. Operation of pressurisation system

iii. Use of de-icing and anti icing system

- *Demonstrate ability to operate aircraft systems as applicable*

iv. Rejected take off (at a reasonable speed)

- *Safely bring the aircraft to a halt on the runway following a simulated emergency during the initial part of the take-off run.*

g. Oral questions

- *Demonstrate knowledge of maintaining, operating and limitations of the aeroplane used for the flight test*

Appendix 3 CPL Skill Test Tolerances

The following is an extract from the Flight Examiners Handbook. Tables for PPL and IR Skill Tests are included for comparison.

(Figures in Italics are National requirements where no JAR guidance is given)

PROFILE	PPL Skill Test	CPL Skill Test	IR Skill Test & All Revalidations and Renewals
Altitude or Height			
Normal Flight	± 150 ft	± 100 ft	± 100 ft
With simulated engine failure	± 200 ft	± 150 ft	± 100 ft
Limited or partial panel		± 200 ft	± 200 ft
Starting go-around at decision alt/ht			+ 50 ft / - 0 ft *(SE +100ft/-0ft)*
Minimum descent altitude / height			+ 50 ft / - 0 ft *(SE +100ft/-0ft)*
Circling minima			*+ 100 ft / - 0 ft (SE +100ft/-0ft)*
Tracking			
All except precision approach	± 10°	± 5°	± 5°
Precision approach			half scale deflection azimuth and glidepath
Heading			
All engines operating	± 10°	± 10°	± 5°
With simulated engine failure	± 15°	± 15°	± 10°
Limited or Partial panel		*± 15°*	*± 15°*
Speed			
Take-off / Vr	*+10 /- 5 kt*	+ 5 / - 0 kt	+ 5 / - 0 kt
Climb and approach	± 15 kt	± 10 kt	± 5 kt
Vat / Vref	+ 15 / -5 kt	+ 5 kt/-0 kt	+ 5 kt / - 0 kt
Cruise	± 15 kt	± 10 kt	± 5 kt
Limited or Partial Panel	N/A	± 10 kt	± 10 kt
With simulated engine failure	+ 15 / -5 kt	+ 10 / -5 kt	+ 10 / - 5 kt
Blue Line speed or Vyse / V_2	*± 5 kt*	± 5 kt	± 5 kt
Maximum airspeed error at any time	± 15 kt	± 10 kt	± 10 kt