

2.3.5 COMMERCIAL PILOT LICENCE

2.3.5.1 GENERAL REQUIREMENTS

(a) Age. The applicant for a CPL shall be not less than 18 years of age.

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- (b) Medical fitness. The applicant for a CPL shall hold a current Class 1 Medical Certificate issued under this Part.
- (c) Knowledge areas. The applicant for a CPL shall receive and log ground training from an authorised instructor on the following subjects appropriate to the privileges granted to the holder of a commercial pilot licence and appropriate to the category of aircraft to be included on the licence:
 - (1) Air law:
 - (i) Rules and regulations relevant to the holder of a CPL;
 - (ii) Rules of the air; appropriate air traffic services practices and procedures.
 - (2) Aircraft general knowledge:
 - (i) Principles of operation and functioning of powerplants, systems and instruments;
 - (ii) Operating limitations of the appropriate category of aircraft and powerplants; relevant operational information from the flight manual or other appropriate document;
 - (iii) Use and serviceability checks of equipment and systems of appropriate aircraft;
 - (iv) Maintenance procedures for airframes, systems and powerplants of appropriate aircraft;
 - (v) For helicopters and powered-lift, transmission (power-trains) where applicable; and
 - (vi) For airships and balloons, physical properties and practical application of gases.
 - (3) Flight performance, planning and loading:
 - (i) Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
 - (ii) Use and practical application of take-off or launching, landing and other performance data;
 - (iii) Pre-flight and en-route flight planning appropriate to commercial operations under VFR; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; and
 - (iv) In the case of helicopter and powered-lift, effects of external loading.
 - (4) Human performance:
 - (i) Human performance relevant to the appropriate aircraft type; and
 - (ii) Principles of threat and error management.
 - (5) Meteorology:



- (i) Interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
- (ii) Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the moment of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect takeoff, en-route and landing conditions; and
- (iii) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance.

(6) Navigation:

- (i) Air navigation, including the use of aeronautical charts, instruments and navigation aids;
- (ii) Understanding of the principles and characteristics of appropriate navigation systems;
- (iii) Operation of air borne equipment.
- (iv) In the case of airships:
 - (A) Use, limitation and serviceability of avionics and instruments necessary for the control and navigation;
 - (B) Use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight, identification of radio navigation aids; and
 - (C) Principles and characteristics of self-contained and external referenced navigation systems, operations of airborne equipment.

(7) Operation procedures:

- (i) Application of threat and error management to operational performance;
- (ii) Use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- (iii) Altimeter setting procedures;
- (iv) Appropriate precautionary and emergency procedures;
- (v) Operational procedures for carriage of freight; potential hazards associated with dangerous goods;
- (vi) Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft; and

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- (vii) In the case of the helicopter, and if applicable powered-lift, settling with power, ground resonance; retreating blade stall; dynamic roll-over and other operational hazards; safety procedures, associated with flight under VFR.
- (8) Principles of flight:
 - (i) Principles of flight relating to the appropriate category of aircraft.
- (9) Radiotelephony:
 - (i) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure; and
 - (ii) As further specified in IS 2.3.5.
- (d) Knowledge testing. The applicant for the CPL shall:
 - (1) Have received an endorsement for the knowledge test from an authorised instructor who:
 - (i) Conducted the training on the knowledge subjects; and
 - (ii) Certifies that the person is prepared for the required knowledge test.
 - (2) Pass the required knowledge test on the knowledge subjects listed in IS 2.3.5.
- (e) Experience and flight instruction. An applicant for a CPL shall have completed the experience and flight instruction requirements appropriate to the aircraft category as specified in this Part.
- (f) Skill. The applicant for a CPL shall:
 - (1) Have received an endorsement from an authorised instructor who certifies that the person is prepared for the required skill test.
 - (2) Have demonstrated by passing a skill test the ability to perform as PIC of an aeroplane, the areas of operation described in IS 2.3.5 with a degree of competency appropriate to the privileges granted to the holder of a CPL, and to
 - (i) Operate the aeroplane within its limitations;
 - (ii) Complete all manoeuvres with smoothness and accuracy;
 - (iii) Exercise good judgement and airmanship;
 - (iv) Apply aeronautical knowledge; and
 - (v) Maintain control of the aeroplane at all times in a manner such that the successful outcome of a procedure or manoeuvre is never seriously in doubt.
- (g) Privileges. Subject to compliance with the requirements specified in this Part, the privileges of the holder of a CPL shall be:



- (1) To exercise all the privileges of the holder of a PPL in an aircraft within the appropriate aircraft category;
- (2) To act as PIC in an aircraft within the appropriate aircraft category engaged in operations other than commercial air transportation;
- (3) To act as PIC in commercial air transportation in an aircraft within the appropriate aircraft category certificated for single-pilot operation;
- (4) To act as co-pilot in aircraft within the appropriate aircraft category required to be operated with a co-pilot; and
- (5) For the airship category, to pilot an airship under IFR.
- (h) Validity. Subject to compliance with the requirements specified in this Part, the validity period of the licence is 5 years. For renewal of the licence see 2.2.4.

2.3.5.2 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL—AEROPLANE CATEGORY

- (a) Experience.
 - (1) The applicant for a CPL(A) shall have completed not less than 200 hours of flight time, or 150 hours if completed during an Authority approved training course provided for in an Approved Training Organisation under Part 3, as a pilot of aeroplanes, of which 10 hours may have been completed in a flight simulation training device.
 - (2) The applicant shall have completed in aeroplanes not less than:
 - (i) 100 hours as PIC or, in the case of a course of approved training, 70 hours as PIC;
 - (ii) 20 hours of cross-country flight time as PIC including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full-stop landings at two different aerodromes shall be made;
 - (iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time;
 - (iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as PIC.
 - (3) The holder of a pilot licence in another category may be credited towards the 200 hours of flight time as follows:
 - (i) 10 hours as PIC in a category other than helicopters; or
 - (ii) 30 hours as PIC holding a PPL(H) on helicopters; or
 - (iii) 100 hours as PIC holding a CPL(H) on helicopters.

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- (4) The applicant for a CPL(A) shall hold a PPL(A) issued under this Part.
- (b) Flight Instruction.
 - (1) The applicant for a CPL(A) shall receive and log not less than 25 hours of dual instruction from an authorised instructor. These 25 hours may include 5 hours completed in a flight simulation training device.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) Pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
 - (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (iv) Control of the aeroplane by external visual reference;
 - (v) Flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls:
 - (vi) Flight with asymmetrical power for multi-engine class or type ratings;
 - (vii) Flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
 - (viii) Normal and cross-wind take-offs and landings;
 - (ix) Maximum performance (short field and obstacle clearance take-offs, short-field landings;
 - (x) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
 - (xi) Cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures
 - (xii) Abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;
 - (xiii) Operations to, from and transitting controlled aerodromes, compliance with air traffic services procedures; and
 - (xiv) Communication procedures and phraseology.
 - (3) If the privileges of the CPL(A) are to be exercised at night, the applicant shall have received 4 hours dual instruction in aeroplanes in night flying, including take-offs, landings and 1 hour of navigation.



2.3.5.3 CPL SKILL TEST—AEROPLANE CATEGORY

(a) The requirement for the skill test for the commercial pilot licence—aeroplane category are included in IS 2.3.5.3.

2.3.5.4 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL—HELICOPTER CATEGORY

- (a) Experience.
 - (1) The applicant for a CPL(H) licence shall have completed not less than 150 hours of flight time, or 100 hours if completed during an integrated course of approved training provided for in an Approved Training Organisation under Part 3, as a pilot of helicopters, of which 10 hours may have been completed in a flight simulation training device.
 - (2) The applicant shall have completed in helicopters not less than:
 - (i) 35 hours as PIC;
 - (ii) 10 hours of cross-country flight time as PIC including a cross-country flight in the course of which full-stop landings at two different points shall be made;
 - (iii) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time;
 - (iv) If the privileges of the licence are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as PIC.
 - (3) The holder of a pilot licence in another category may be credited towards the 150 hours of flight time as follows:
 - (i) 20 hours as PIC holding a PPL(A) in aeroplanes; or
 - (ii) 50 hours as PIC holding a CPL(A) in aeroplanes.
 - (4) The applicant for a CPL(H) shall hold a PPL(H) under this Part.
- (b) Flight Instruction.
 - (1) The applicant for a CPL(H) shall have received and logged not less than 30 hours of dual instruction in helicopters from an authorised flight instructor on the subjects listed in IS 2.3.5.5.
 - (2) The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the commercial pilot:
 - (i) Recognise and manage threats and errors;
 - (ii) Pre-flight operations, including mass and balance determination, helicopter inspection and servicing:

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- (iii) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- (iv) Control of the helicopter by external visual reference;
- (v) Recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- (vi) Ground manoeuvring and run-ups; hovering; take-offs and landings normal, out of wind and sloping ground; steep approaches;
- (vii) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- (viii) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
- (ix) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
- (x) Cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures
- (xi) Abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing; and
- (xii) Operations to, from and transitting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology
- (xiii) As further specified in IS 2.3.5.5.
- (3) If the privileges of the licence are to be exercised at night, the applicant shall have received dual instruction in helicopters in night flying, including take-offs, landings and navigation.

2.3.5.5 CPL SKILL TEST—HELICOPTER CATEGORY

(a) The requirements for the skill test for the commercial pilot licence—helicopter category are included in IS 2.3.5.5.

2.3.5.6 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL-POWERED-LIFT CATEGORY

- (a) Experience.
 - (1) The applicant for a CPL-Powered-lift category shall have completed not less than 200 hours of flight time, or 150 hours if completed during a course of approved training provided for in an Aviation Training Organisation under Part 3, as a pilot of aircraft. The Licensing Authority may determine whether experience as a pilot under instruction in a flight simulation training device is acceptable as part of the total flight time of 200 hours or 150 hours, as the case may be.



- (2) The applicant shall have completed in a powered-lift aircraft not less than:
 - (i) 50 hours as pilot in command;
 - (ii) 10 hours in cross-country flying as pilot-in command including a cross-country flight totalling not less than 540 km (300 NM) in the course of which full stop landing at two different aerodromes shall be made:
 - (iii) 10 hours of instrument instruction of which not more than 5 hours may be instrument ground time; and
 - (iv) If the privileges are to be exercised at night, 5 hours of night flight including 5 take-offs and landings as PIC.
- (3) When the applicant has flight time as pilot of aircraft in other categories, the Authority may determine whether such experience is acceptable and if so, the extent to which the flight time requirements in item (a) may be reduced.
- (b) Flight instruction. The applicant shall have received dual instruction in powered-lift from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:
 - (1) Recognise and manage threats and errors to minimise their negative effects;
 - (2) Pre-flight operations, including mass and balance determination, powered-lift inspection and servicing;
 - (3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (4) Control of the powered-lift by external visual reference;
 - (5) Ground manoeuvring and run-ups; hover and rolling take-offs and climb out; hover and rolling approach and landings normal, out of wind and slopping ground; steep approaches;
 - (6) Take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
 - (7) Hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
 - (8) Basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
 - (9) Cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
 - (10) Emergency operations, including simulated powered-lift equipment malfunctions, where applicable; power of reconversion to autorotation; autorotative approach; transmission and interconnect driveshaft failure: and
 - (11) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology.

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2.3.5.7 CPL SKILL TEST—POWERED-LIFT CATEGORY

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2.3.5.8 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL-AIRSHIP CATEGORY

- (a) Experience.
 - (1) The applicant shall have completed not less than 200 hours of flight time as a pilot.
 - (2) The applicant shall have completed not less than:
 - (i) 50 hours as a pilot in airships;
 - (ii) 30 hours as PIC or PIC under supervision in airships, to include not less than:
 - (A) 10 hours of cross-country flight time; and
 - (B) 10 hours of night flight;
 - (iii) 40 hours of instrument time, of which 20 hours shall be in flight and 10 hours in flight in airships; and
 - (iv) 20 hours of flight training in airships on the areas of operation listed in item (b) below.
- (b) Flight instruction. The applicant shall have received dual instruction in airships from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:
 - (1) Recognise and manage threats and errors:
 - (2) Pre-flight operations, including mass and balance determination, airships inspection and servicing;
 - (3) Aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
 - (4) Techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
 - (5) Control of the airships by external visual reference;
 - (6) Recognition of leak:
 - (7) Normal take-offs and landings;
 - (8) Maximum performance (short field and obstacle clearance) take-offs; short-field landings;
 - (9) Flight under IFR;
 - (10) Cross-country flying using visual reference, dead reckoning and, where applicable, radio navigation aids;



- (11) Emergency operations, including simulated airship equipment malfunctions;
- (12) Operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- (13) Communications procedures and phraseology.

2.3.5.9 CPL SKILL TEST—AIRSHIP CATEGORY

(a) The requirements for the skill test for the CPL–Airship category are included in IS 2.3.5.9.

2.3.5.10 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL—BALLOON CATEGORY

- (a) Experience. The applicant shall have completed at least:
 - (1) 35 hours flight time as a pilot, including at least:
 - (i) 20 hours as a pilot of free balloons;
 - (ii) 10 flights in a free balloon; and
 - (iii) 2 flights in a free balloon as the pilot in command.
 - (2) 10 hours of flight training that includes at least 10 training flights in a free balloon on the areas of operation listed in (b) below, including at least:
 - (i) For a gas balloon rating:
 - (A) 2 training flights of 2 hours each in a gas balloon on the areas of operations appropriate to a gas balloon within 60 days prior to application for the rating;
 - (B) 2 flights performing the functions of PIC in a gas balloon on the appropriate areas of operation; and
 - (C) 1 flight involving a controlled ascent to 5,000 feet above the launch site.
 - (ii) For a hot air balloon rating:
 - (A) 3 training flights of 1 hour each in a balloon with an airborne heater on the areas of operation appropriate to a balloon with an airborne heater within 60 days prior to application for the rating;
 - (B) 2 solo flights in a balloon with an airborne heater on the appropriate areas of operations; and
 - (C) 1 flight involving a controlled ascent to 3,000 feet above the launch site.
- (b) Flight instruction. The applicant shall have received dual instruction in balloons from an authorised instructor in at least the following areas to the level of performance required for the commercial pilot:

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- (1) Recognise and manage threats and errors;
- (2) Technical subjects;
- (3) Pre-flight operations, including balloon assembly, rigging, inflation, mooring, and inspection;
- (4) Pre-flight lesson on a manoeuvre to be performed in flight;
- (5) Aerodrome operations, transiting controlled aerodromes, compliance with air traffic services procedures, radiotelephony procedures and phraseology;
- (6) Techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;
- (7) Collision avoidance precautions:
- (8) Control of a free balloon by external visual references;
- (9) Recognition of and recovery from rapid descents;
- (10) Navigation and cross-country flying using visual reference and dead reckoning;
- (11) Approaches and landings, including ground handling;
- (12) Emergency procedures; and
- (13) Post-flight procedures.

2.3.5.11 CPL SKILL TEST—BALLOON CATEGORY

(a) The requirements for the skill test for the CPL-Balloon category are included in IS 2.3.5.11.

2.3.5.12 EXPERIENCE AND FLIGHT INSTRUCTION FOR THE CPL-GLIDER CATEGORY

- (a) Experience. The applicant shall have completed at least:
 - (1) 25 hours flight time as a pilot in a glider and that flight time must include at least 100 flights in a glider as pilot in command, including at least
 - (i) 3 hours of flight training or 10 training flight in gliders on the areas of operation listed in(b) below, and
 - (ii) 2 hours of solo flight that includes not less than 10 solo flights in gliders on the areas of operations listed in (b) below; or
 - (2) 200 hours of flight time as a pilot in either aeroplane, helicopter or powered-lift aircraft, and 20 flights in gliders as pilot in command, including at least
 - (i) 3 hours of flight training or 10 training flights in gliders on the areas of operation listed in (b) below, and
 - (ii) 5 solo flights in a glider on the areas of operation listed in (b) below.



- (b) Flight instruction. The applicant shall have received dual instruction in a glider from an authorised instructor in at least the following areas of operation to the level of performance required for a commercial pilot:
 - (1) Recognise and manage threats and errors;
 - (2) Pre-flight preparation;
 - (3) Pre-flight procedures
 - (4) Aerodrome and gliderport operations;
 - (5) Launches and landings;
 - (6) Performance speeds;
 - (7) Soaring techniques;
 - (8) Performance manoeuvres;
 - (9) Navigation
 - (10) Slow flight and stalls
 - (11) Emergency procedures; and
 - (12) Post-flight procedures.

2.3.5.13 CPL SKILL TEST—GLIDER CATEGORY

(a) The requirements for the skill test for the CPL–Glider category are included in IS 2.3.5.13.

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