

## SUBPART C – PRIVATE PILOT LICENCE (PPL)

### SECTION 1 – COMMON REQUIREMENTS

#### FCL.200 Minimum age

*Regulation (EU) 2020/359*

Applicants for a PPL shall be at least 17 years old.

#### FCL.205 Conditions

*Regulation (EU) No 1178/2011*

Applicants for the issue of a PPL shall have fulfilled the requirements for the class or type rating for the aircraft used in the skill test, as established in Subpart H.

#### FCL.210 Training course

*Regulation (EU) 2020/359*

- (a) Applicants for a PPL shall complete a training course at an ATO or a DTO.
- (b) The course shall include theoretical knowledge and flight instruction appropriate to the privileges of the PPL applied for.
- (c) Theoretical knowledge instruction and flight instruction may be completed at a DTO or at an ATO different from the one where applicants have commenced their training.

#### AMC1 FCL.210 PPL(A) Training course

*ED Decision 2020/005/R*

##### FLIGHT INSTRUCTION FOR THE PPL(A)

- (a) Entry to training

Before being accepted for training an applicant should be informed that the appropriate medical certificate must be obtained before solo flying is permitted.
- (b) Flight instruction
  - (1) The PPL(A) flight instruction syllabus takes into account the principles of threat and error management and also covers:
    - (i) pre-flight operations, including mass and balance determination, aircraft inspection and servicing;
    - (ii) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
    - (iii) control of the aircraft by external visual reference;
    - (iv) flight at critically low air speeds, recognition of, and recovery from, incipient and full stalls;
    - (v) flight at critically high air speeds, recognition of, and recovery from, spiral dive;
    - (vi) normal and crosswind take-offs and landings;

- (vii) maximum performance (short field and obstacle clearance) takeoffs, short-field landings;
  - (viii) light by reference solely to instruments, including the completion of a level 180 ° turn;
  - (ix) cross-country flying using visual reference, dead reckoning and radio navigation aids;
  - (x) emergency operations, including simulated aeroplane equipment malfunctions;
  - (xi) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures, communication procedures and phraseology.
- (2) Before allowing applicants for a PPL(A) to undertake their first solo flight, the FI should ensure that the applicants can use R/T communication and can operate the required systems and equipment.
- (c) Syllabus of flight instruction
- (1) The numbering of exercises should be used primarily as an exercise reference list and as a broad instructional sequencing guide; therefore the demonstrations and practices need not necessarily be given in the order listed. The actual order and content will depend upon the following interrelated factors:
- (i) the applicant's progress and ability;
  - (ii) the weather conditions affecting the flight;
  - (iii) the flight time available;
  - (iv) instructional technique considerations;
  - (v) the local operating environment;
  - (vi) applicability of the exercises to the aeroplane.
- (2) Each of the exercises involves the need for the applicant to be aware of the needs of good airmanship and look-out, which should be emphasised at all times.
- (i) Exercise 1a: Familiarisation with the aeroplane:
    - (A) characteristics of the aeroplane;
    - (B) cockpit layout;
    - (C) systems;
    - (D) checklists, drills and controls.
  - (ii) Exercise 1b: Emergency drills:
    - (A) action if fire on the ground and in the air;
    - (B) engine cabin and electrical system fire;
    - (C) systems failure;
    - (D) escape drills, location and use of emergency equipment and exits.
  - (iii) Exercise 2: Preparation for and action after flight:
    - (A) flight authorisation and aeroplane acceptance;
    - (B) serviceability documents;

- (C) equipment required, maps, etc.;
  - (D) external checks;
  - (E) internal checks;
  - (F) harness, seat or rudder panel adjustments;
  - (G) starting and warm-up checks;
  - (H) power checks;
  - (I) running down system checks and switching off the engine;
  - (J) parking, security and picketing (for example tie down);
  - (K) completion of authorisation sheet and serviceability documents.
- (iv) Exercise 3: Air experience: flight exercise.
- (v) Exercise 4: Effects of controls:
- (A) primary effects when laterally level and when banked;
  - (B) further effects of aileron and rudder;
  - (C) effects of:
    - (a) air speed;
    - (b) slipstream;
    - (c) power;
    - (d) trimming controls;
    - (e) flaps;
    - (f) other controls, as applicable.
  - (D) operation of:
    - (a) mixture control;
    - (b) carburettor heat;
    - (c) cabin heating or ventilation.
- (vi) Exercise 5a: Taxiing:
- (A) pre-taxi checks;
  - (B) starting, control of speed and stopping;
  - (C) engine handling;
  - (D) control of direction and turning;
  - (E) turning in confined spaces;
  - (F) parking area procedure and precautions;
  - (G) effects of wind and use of flying controls;
  - (H) effects of ground surface;
  - (I) freedom of rudder movement;
  - (J) marshalling signals;

- (K) instrument checks;
- (L) air traffic control procedures.
- (vii) Exercise 5b: Emergencies: brake and steering failure.
- (viii) Exercise 6: Straight and level:
  - (A) at normal cruising power, attaining and maintaining straight and level flight;
  - (B) flight at critically high air speeds;
  - (C) demonstration of inherent stability;
  - (D) control in pitch, including use of trim;
  - (E) lateral level, direction and balance and trim;
  - (F) at selected air speeds (use of power);
  - (G) during speed and configuration changes;
  - (H) use of instruments for precision.
- (ix) Exercise 7: Climbing:
  - (A) entry, maintaining the normal and max rate climb and levelling off;
  - (B) levelling off at selected altitudes;
  - (C) en-route climb (cruise climb);
  - (D) climbing with flap down;
  - (E) recovery to normal climb;
  - (F) maximum angle of climb;
  - (G) use of instruments for precision.
- (x) Exercise 8: Descending:
  - (A) entry, maintaining and levelling off;
  - (B) levelling off at selected altitudes;
  - (C) glide, powered and cruise descent (including effect of power and air speed);
  - (D) side slipping (on suitable types);
  - (E) use of instruments for precision flight.
- (xi) Exercise 9: Turning:
  - (A) entry and maintaining medium level turns;
  - (B) resuming straight flight;
  - (C) faults in the turn (for example in correct pitch, bank and balance);
  - (D) climbing turns;
  - (E) descending turns;
  - (F) faults in the turns (slipping and skidding on suitable types);
  - (G) turns onto selected headings, use of gyro heading indicator and compass;
  - (H) use of instruments for precision.

## (xii) Exercise 10a: Slow flight:

Note: the objective is to improve the student's ability to recognise inadvertent flight at critically low speeds and provide practice in maintaining the aeroplane in balance while returning to normal air speed.

- (A) safety checks;
- (B) introduction to slow flight;
- (C) controlled flight down to critically slow air speed;
- (D) application of full power with correct attitude and balance to achieve normal climb speed.

## (xiii) Exercise 10b: Stalling:

- (A) safety checks;
- (B) symptoms;
- (C) recognition;
- (D) clean stall and recovery without power and with power;
- (E) recovery when a wing drops;
- (F) approach to stall in the approach and in the landing configurations, with and without power and recovery at the incipient stage.

## (xiv) Exercise 11: Spin avoidance:

- (A) safety checks;
- (B) stalling and recovery at the incipient spin stage (stall with excessive wing drop, about 45°);
- (C) instructor induced distractions during the stall.

Note 1: at least two hours of stall awareness and spin avoidance flight training should be completed during the course.

Note 2: consideration of manoeuvre limitations and the need to refer to the aeroplane manual and mass and balance calculations.

## (xv) Exercise 12: Take-off and climb to downwind position:

- (A) pre-take-off checks;
- (B) into wind take-off;
- (C) safeguarding the nose wheel;
- (D) crosswind take-off;
- (E) drills during and after take-off;
- (F) short take-off and soft field procedure/techniques including performance calculations;
- (G) noise abatement procedures.

## (xvi) Exercise 13: Circuit, approach and landing:

- (A) circuit procedures, downwind and base leg;

- (B) powered approach and landing;
- (C) safeguarding the nose wheel;
- (D) effect of wind on approach and touchdown speeds and use of flaps;
- (E) crosswind approach and landing;
- (F) glide approach and landing;
- (G) short landing and soft field procedures or techniques;
- (H) flapless approach and landing;
- (I) wheel landing (tail wheel aeroplanes);
- (J) missed approach and go-around;
- (K) noise abatement procedures.

(xvii) Exercise 12/13: Emergencies:

- (A) abandoned take-off;
- (B) engine failure after take-off;
- (C) mislanding and go-around;
- (D) missed approach.

Note: in the interests of safety it will be necessary for pilots trained on nose wheel aeroplanes to undergo dual conversion training before flying tail wheel aeroplanes, and vice-versa.

(xviii) Exercise 14: First solo:

- (A) instructor's briefing, observation of flight and de-briefing;

Note: during flights immediately following the solo circuit consolidation the following should be revised:

- (B) procedures for leaving and rejoining the circuit;
- (C) the local area, restrictions, map reading;
- (D) use of radio aids for homing;
- (E) turns using magnetic compass, compass errors.

(xix) Exercise 15: Advanced turning:

- (A) steep turns (45°), level and descending;
- (B) stalling in the turn and recovery;
- (C) recoveries from unusual attitudes, including spiral dives.

(xx) Exercise 16: Forced landing without power:

- (A) forced landing procedure;
- (B) choice of landing area, provision for change of plan;
- (C) gliding distance;
- (D) descent plan;
- (E) key positions;

- (F) engine cooling;
  - (G) engine failure checks;
  - (H) use of radio;
  - (I) base leg;
  - (J) final approach;
  - (K) landing;
  - (L) actions after landing.
- (xxi) Exercise 17: Precautionary landing:
- (A) full procedure away from aerodrome to break-off height;
  - (B) occasions necessitating;
  - (C) in-flight conditions;
  - (D) landing area selection:
    - (a) normal aerodrome;
    - (b) disused aerodrome;
    - (c) ordinary field.
  - (E) circuit and approach;
  - (F) actions after landing.
- (xxii) Exercise 18a: Navigation:
- (A) flight planning:
    - (a) weather forecast and actuals;
    - (b) map selection and preparation:
      - (1) choice of route;
      - (2) controlled airspace;
      - (3) danger, prohibited and restricted areas;
      - (4) safety altitudes.
    - (c) calculations:
      - (1) magnetic heading(s) and time(s) en-route;
      - (2) fuel consumption;
      - (3) mass and balance;
      - (4) mass and performance.
    - (d) flight information:
      - (1) NOTAMs etc.;
      - (2) radio frequencies;
      - (3) selection of alternate aerodromes.
    - (e) aeroplane documentation;

- (f) notification of the flight:
    - (1) pre-flight administrative procedures;
    - (2) flight plan form.
  - (B) departure:
    - (a) organisation of cockpit workload;
    - (b) departure procedures:
      - (1) altimeter settings;
      - (2) ATC liaison in controlled or regulated airspace;
      - (3) setting heading procedure;
      - (4) noting of ETAs.
    - (c) maintenance of altitude and heading;
    - (d) revisions of ETA and heading;
    - (e) log keeping;
    - (f) use of radio;
    - (g) use of nav aids;
    - (h) minimum weather conditions for continuation of flight;
    - (i) in-flight decisions;
    - (j) transiting controlled or regulated airspace;
    - (k) diversion procedures;
    - (l) uncertainty of position procedure;
    - (m) lost procedure.
  - (C) arrival and aerodrome joining procedure:
    - (a) ATC liaison in controlled or regulated airspace;
    - (b) altimeter setting;
    - (c) entering the traffic pattern;
    - (d) circuit procedures;
    - (e) parking;
    - (f) security of aeroplane;
    - (g) refuelling;
    - (h) closing of flight plan, if appropriate;
    - (i) post-flight administrative procedures.
- (xxiii) Exercise 18b: Navigation problems at lower levels and in reduced visibility:
- (A) actions before descending;
  - (B) hazards (for example obstacles and terrain);
  - (C) difficulties of map reading;



- (D) effects of wind and turbulence;
- (E) vertical situational awareness (avoidance of controlled flight into terrain);
- (F) avoidance of noise sensitive areas;
- (G) joining the circuit;
- (H) bad weather circuit and landing.

(xxiv) Exercise 18c: Radio navigation:

- (A) use of GNSS:
  - (a) selection of waypoints;
  - (b) to or from indications and orientation;
  - (c) error messages.
- (B) use of VHF omni range:
  - (a) availability, AIP and frequencies;
  - (b) selection and identification;
  - (c) OBS;
  - (d) to or from indications and orientation;
  - (e) CDI;
  - (f) determination of radial;
  - (g) intercepting and maintaining a radial;
  - (h) VOR passage;
  - (i) obtaining a fix from two VORs.
- (C) use of ADF equipment: NDBs:
  - (a) availability, AIP and frequencies;
  - (b) selection and identification;
  - (c) orientation relative to the beacon;
  - (d) homing.
- (D) use of VHF/DF:
  - (a) availability, AIP, frequencies;
  - (b) R/T procedures and ATC liaison;
  - (c) obtaining a QDM and homing.
- (E) use of en-route or terminal radar:
  - (a) availability and AIP;
  - (b) procedures and ATC liaison;
  - (c) pilot's responsibilities;
  - (d) secondary surveillance radar:
    - (1) transponders;

- 
- (2) code selection;
      - (3) interrogation and reply.
    - (F) use of DME:
      - (a) station selection and identification;
      - (b) modes of operation: distance, groundspeed and time to run.
  - (xxv) Exercise 19: Basic instrument flight:
    - (A) physiological sensations;
    - (B) instrument appreciation; attitude instrument flight;
    - (C) instrument limitations;
    - (D) basic manoeuvres:
      - (a) straight and level at various air speeds and configurations;
      - (b) climbing and descending;
      - (c) standard rate turns, climbing and descending, onto selected headings;
      - (d) recoveries from climbing and descending turns.
  - (d) BITD
    - (1) A BITD may be used for flight training for:
      - (i) flight by reference solely to instruments;
      - (ii) navigation using radio navigation aids;
      - (iii) basic instrument flight.
    - (2) The use of the BITD should be subject to the following:
      - (i) the training should be complemented by exercises on an aeroplane;
      - (ii) the record of the parameters of the flight must be available;
      - (iii) A FI(A) or STI(A) should conduct the instruction.