

# REPUBLIC OF INDONESIA MINISTRY OF TRANSPORTATION

**CIVIL AVIATION SAFETY REGULATION (CASR)** 

PART 61 LICENSING OF PILOTS AND FLIGHT INSTRUCTORS

NOMOR : PM 66 Tahun 2017 TANGGAL : 4 Agustus 2017

## CIVIL AVIATION SAFETY REGULATIONS (C.A.S.R.)

PART 61
AMANDMENT 5

LICENSING OF PILOTS AND FLIGHT INSTRUCTORS

REPUBLIC OF INDONESIA MINISTRY OF TRANSPORTATION

#### PART 61 LICENSING OF PILOTS AND FLIGHT INSTRUCTORS

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#### SUBPART A - GENERAL

#### 61.1 Applicability

(a) This part prescribes the requirements for issuing pilot and Flight Instructor Licenses and Ratings, the conditions under which those licenses and ratings are necessary, and the privileges and limitations of those licenses and ratings.

(b) Except as provided in Part 61.71, an applicant for a license or rating must meet the requirements of this part.

### 61.2 Licensing of Foreign Pilots and Flight Instructors Outside the Republic of Indonesia.

A person who is not an Indonesian citizen shall be issued a license under this part (other than under Part 61.75 or Part 61.77), outside the Republic of Indonesia, only when the Director General finds that the pilot license is needed for the operation of an Indonesian registered civil aircraft or finds that the Flight Instructor License is needed for the training of students who are citizens of the Republic of Indonesia.

#### 61.3 Requirements for Licenses, Ratings, and Authorizations

- (a) Pilot license. No person may act as pilot in command or in any other capacity as a required pilot flight crewmember of a civil aircraft of Indonesia registry unless he has in his personal possession a current pilot license issued to him under this part. However, when the aircraft is operated within a foreign country a current pilot license issued by the country in which the aircraft is operated may be used.
- (b) Pilot license: Foreign aircraft. No person may, within the Republic of Indonesia, act as pilot in command or in any other capacity as a required pilot flight crewmember of a civil aircraft of foreign registry unless he has in his personal possession a current pilot license issued to him under this part, or a pilot license issued to him or validated for him by the country in which the aircraft is registered.
- (c) Medical certificate. Except for free balloon pilots piloting balloons and glider pilots piloting gliders, no person may act as pilot in command or in any other capacity as a required pilot flight crewmember of an aircraft under a license issued to him under this part, unless he has in his personal possession an appropriate, current medical certificate issued under Part 67 of the CASRs. However, when the aircraft is operated within a foreign country with a current pilot license issued by that foreign country, evidence of current medical qualification for that foreign license, issued by that foreign country, may be used. In the case of a pilot license issued on the basis of a foreign pilot license under Part 61.75, evidence of current medical qualification accepted for the issued of that foreign license is used in place of a medical certificate.
- (d) Flight Instructor License. Except for lighter than air flight instruction in lighter than – air aircraft, and for instruction in air transportation service given by the holder of an Airplane Transport Pilot License under Part 61.169, no person other than the holder of a Flight Instructor License issued by the Director General with

an appropriate rating on that license may-

(1) Give any of the flight instruction required to qualify for a solo flight, solo cross country flight, or for the issue of a pilot or Flight Instructor License or rating;

- (2) Endorse a pilot logbook to show that he has given any flight instruction; or
- (3) Endorse a student pilot license or logbook for solo operating privileges.
- (e) Instrument rating. No person may act as pilot in command or co-pilot of a civil aircraft under instrument flight rules, or in weather conditions less than the minimums prescribed for VFR flight unless;
  - (1) In the case of an airplane, he holds an instrument rating or an airline transport pilot license with an airplane rating on it;
  - (2) In the case of a helicopter, he holds a helicopter instrument rating or an airline transport pilot license with helicopter category and a helicopter class rating;
  - (3) In the case of a glider, he holds an instrument rating (airplane) or an airline transport pilot license with an airplane category rating; or
  - (4) In the case of an airship, he holds a commercial pilot license with lighter-than air category and airship class ratings.
- (f) Category II pilot authorization.
  - (1) No person may act as pilot in command of a civil aircraft in a Category II operation unless he holds a current Category II pilot authorization for that type aircraft or, in the case of a civil aircraft of foreign registry, he is authorized by the country of registry to act as pilot in command of that aircraft in category II operation.
  - (2) No person may act as second in command of a civil aircraft in a Category II operation unless he holds a current appropriate instrument rating or an appropriate airline transport pilot license or, in the case of a civil aircraft of foreign registry, he is authorized by the country of registry to act as second in command of that aircraft in category II operations.

This paragraph does not apply to operations conducted by the holder of a certificate issued under Parts 121 and 135 of the CASRs.

(g) Inspection of license. Each person who holds a pilot license, Flight Instructor License, medical certificate, authorization, or license required by this part shall present it for inspection upon the request of the Director General or his authorized representative.

#### 61.5 Licenses and Ratings Issued Under This Part

- (a) The following licenses are issued under this part:
  - (1) Pilot Licenses:
    - (i) Student pilot.
    - (ii) Sport pilot.
    - (iii) Private pilot.
    - (iv) Commercial pilot.
    - (v) Airline transport pilot
  - (2) Flight Instructor Licenses;
- (b) The following ratings are placed on pilot licenses (other than student pilot) where

#### applicable:

- (1) Aircraft category ratings:
  - (i) Airplane
  - (ii) Rotorcraft
  - (iii) Glider
  - (iv) Lighter-than-air
- (2) Airplane class ratings;
  - (i) Single engine land
  - (ii) Multiengine land
  - (iii) Multiengine land
  - (iv) Multiengine Sea
- (3) Rotorcraft class ratings;
  - (i) Helicopter
  - (ii) Gyroplane
- (4) Lighter-than-air class ratings
  - (i) Airship
  - (ii) Free ballon
- (5) Aircraft type ratings;
  - (i) Large aircraft, other than lighter-than-air
  - (ii) Small turbojet powered aircraft
  - (iii) Helicopters for operations requiring an airline transport pilot license
  - (iv) Other aircraft type ratings specified by the Director General through aircraft type license procedures
- (6) Instrument rating (on private and commercial pilot license only):
  - (i) Instrument Airplanes
  - (ii) Instrument Helicopter
- (c) The following ratings are placed on Flight Instructor Licenses where applicable:
  - (1) Aircraft category ratings:
    - (i) Airplane
    - (ii) Rotorcraft
    - (iii) Glider
  - (2) Airplane class ratings;
    - (i) Single engine
    - (ii) Multiengine
  - (3) Rotorcraft class ratings;
    - (i) Helicopter
    - (ii) Gyroplane
  - (4) Instrument rating (on private and commercial pilot license only):
    - (i) Instrument Airplanes
    - (ii) Instrument Helicopter

#### **61.7 Language Proficiency Requirements**

(a) Aeroplane and helicopter pilots shall demonstrate the ability to speak and understand the language used for radiotelephony communications according to English Language Proficiency Rating Scale required by International Civil Aviation Organization (ICAO), as prescribed in Appendix C.

(b) The language proficiency of airplane and helicopter pilots who demonstrate proficiency below the expert Level (Level 6) shall be formally evaluated at intervals in accordance with an individual's demonstrated proficiency level, as follows:

- (1) Those demonstrating language proficiency at the Operational Level (Level 4) should be evaluated at least every three years; and
- (2) Those demonstrating language proficiency at the extended level (Level 5) should be evaluated at least once every 6 (six) years.

#### 61.9 The Use of a Flight Simulation Training Device

Use of a flight simulation training device for acquisition of experience and demonstration of skill the use of a flight simulation training device for acquiring the experience or performing any maneuver required during the demonstration of skill for the issue of a license or rating shall be approved by the DGCA.

#### 61.11 Expired Pilot Licenses and Reissuance

- (a) No person who holds an expired pilot license or rating may exercise the privileges of that pilot license or rating.
- (b) A private or commercial pilot license or a special purpose pilot license, issued on the basis of a foreign pilot license, expires on the expiration date stated thereon. A license without an expiration date is issued to the holder of the expired license only if he meets the requirements of Part 61.75 for the issue of a pilot license based on a foreign license.

#### 61.13 Application and Qualification

- (a) An application for a license and rating or for an additional rating under this part is made on a from and in a manner prescribed by the Director General. Each applicant must show evidence that the application fee, prescribed by ministerial decree, has been paid.
- (b) An applicant who meets the requirements of this part is entitled to an appropriate pilot license with aircraft ratings. Additional aircraft category, class, type and other ratings, for which the applicant is qualified, may be added to his license. However, the Director General may refuse to issue licenses to person who are not citizens of the Republic of Indonesia and who do not reside in the Republic of Indonesia.
- (c) An applicant for a pilot license who holds a medical certificate under Part 67.19 of the CASRs with special limitations on it, but who meets all other requirement for that pilot license, may be issued a pilot license containing such operating limitations as the Director General determines are necessary because of the applicant's medical deficiency.
- (d) A Category II pilot authorization is issued as a part of the applicant's instrument rating or airline transport pilot license. Upon original issue the authorization contains a limitation for Category II operation of 1,600 feet RVR and a 150-foot decision height. This limitation is removed when the holder shows that since the beginning of the sixth preceding calendar month he has made three Category II ILS approaches to a landing under actual or simulated instrument conditions with a 150

- foot decision height.
- (e) Unless Authorized by the Director General
  - (1) A person whose pilot license is suspended may not apply for any pilot or a Flight Instructor License or any rating during the period of suspension; and
  - (2) A person whose Flight Instructor License is suspended may not apply for any rating to be added to that license during the period of suspension
  - (3) Unless the Order of revocation provides otherwise.
  - (4) A person whose pilot license is revoked may not apply for any pilot or Flight Instructor License or rating for 1 year after the date of revocation; and
  - (5) A person whose Flight Instructor License is revoked may not apply for any Flight Instructor License for 1 year after date of revocation.

#### 61.15 Offenses Involving Alcohol or Drugs

- (a) A conviction for the violation of any national law relating to the growing, processing manufacture, sale, disposition, transportation, or import of narcotics, drugs, marihuana, or depressant or stimulant drugs or substances is grounds for-
  - (1) Denial of an application for any license or rating issued under this part for a period of up to 1 year after the date of final conviction; or
  - (2) Suspension or revocation of any license or rating issued under this part.
- (b) The commission of an act prohibited by Part 91.17 (a) or Part 91.19(a) of the CASRs is grounds for
  - (1) Denial of an application for any license or rating issued under this part for a period of up to 1 year after the date of that act; or
  - (2) Suspension or revocation of any license or rating issued under this part.

#### 61.16 Refusal to Submit to an Alcohol Test or to Furnish Test Results

- (a) A refusal to submit to a test to indicate the percentage by weight of alcohol in the blood, when requested by a law enforcement officer in accordance with Part 91.17 (c) of the CASRs, or a refusal to furnish or authorize the release of the test results requested by the Director General in accordance with Part 91.17 (c) or (d) of the CASRs, is grounds for-
  - (1) Denial of an application for any license or rating issued under this part for a period of up to 1 year after the date of that refusal; or
  - (2) Suspension or revocation of any license or rating issued under this part.

#### **61.17 Temporary License**

(a) A temporary pilot or Flight Instructor License, or a rating, effective for a period of not more than 30 days, may be issued to a qualified applicant pending a review of his qualifications and the issuance of a permanent license or rating by the Director General. The permanent license or rating is issued to an applicant found qualified and a denial thereof is issued to an applicant found not qualified.

- (b) A temporary license issued under Paragraph (a) of this Part expires.
  - (1) At the end of the expiration date stated thereon; or
  - (2) Upon receipt by the applicant, of
    - (i) The license or rating sought; or
    - (ii) Notice that the license or rating sought is denied

#### 61.19 Duration of pilot and Flight Instructor Licenses

- (a) Pilot licenses. Any pilot license (other than a student pilot license) issued under this part is issued with no expiration date. However, the holder of a pilot license issued on the basis of a foreign pilot license may exercise the privileges of that license only while the foreign pilot license on which that license is based is effective.
- (b) General. The holder of a license with an expiration date may not, after that date, exercise the privileges of that license. However, a pilot license bearing an expiration date, issued within the period of one year before the effective date of this part of the CASRs, may be exchanged for a new pilot license without an expiration date if presented to the Directorate of Air Communications (DGCA) for renewal before the expiration date of the original license.
- (c) Student pilot license. A student pilot license expires at the end of the 24<sup>th</sup> calendar month after the month in which the license is issued.
- (d) Flight Instructor License. A Flight Instructor License
  - (1) Is effective only while the holder has a current pilot license and a medical certificate appropriate to the pilot privileges being exercised; and
  - (2) Expires at the end of the 24<sup>th</sup> calendar month after the month the license was last issued or renewed.
- (e) Surrender, suspension, or revocation. Any pilot license or Flight Instructor License issued under this part ceases to be effective if it is surrendered, suspended, or revoked.
- (f) Return of license. The holder of any license issued this part that is suspended or revoked shall, upon the Director General's request, return it to the Director General.

#### 61.21 Duration of Category II Pilot Authorization

A category II pilot authorization expires at the end of the sixth calendar month after the authorization was last issued or renewed. Upon passing a practical test it is renewed for each type aircraft for which an authorization is held. However, an authorization for any particular type aircraft for which an authorization is held will not be renewed to extend beyond the end of the 12<sup>th</sup> calendar month after the practical test was passed in that type aircraft. If the holder of the authorization passes the practical test for a renewal in the calendar month before the authorization expires, he is considered to have passed it during the month the authorization expired.

#### 61.23 Medical Certificates

(a) Holders of license shall not exercise the privileges of that license if medical certificate is not current or suspect or that their physical or mental condition renders them unfit to exercise such privileges.

- (b) Classification of pilot medical certificate as follows:
  - (1) Class 1 Medical Certificate;
    - i. Commercial pilot licenses aeroplane, airship, and helicopter;
    - ii. Airline transport pilot licenses aeroplane and helicopter.
  - (2) Class 2 Medical Certificate;
    - i. Private pilot licenses aeroplane, airship, helicopter, gyroplane, glider, and free ballon.
    - ii. Sport pilot licenses,
    - iii. Student pilot licenses.
- (c) The validity of medical certificate is in accordance with CASR Part 67.

#### 61.25 Change of Name

An application for the change of a name on a license issued under this part must be accompanied by the applicant's current license and a copy of the marriage license, court order, or other document verifying the change, and a check giro or post wesel for the cost of the revised license, payable to the DGCA. The accompanying documents will be returned to the applicant after inspection.

#### 61.27 Voluntary Surrender or Exchange of License

The holder of a license issued under this part may voluntary surrender it for cancellation or for the issue of a license of lower grade, or another license with specific ratings deleted. If he so requests, he must include the following signed statement or its equivalent:

"This request is made for my own reasons, with full knowledge that my (insert name of license or rating, as appropriate) may not be reissued to me unless I again pass the tests prescribed for its issue."

#### 61.29 Replacement of Lost or Destroyed License

- (a) An application for the replacement of a lost or destroyed license issued under this part is to be made to the DGCA, Directorate of Airworthiness Certification.
  - (1) State the name of the person to whom the license was issued, the permanent mailing address, date and place of birth of the license holder, and any available information regarding the grade, number, and date of issue of the license, and the rating on it; and
  - (2) Be accompanied by a check giro or post wesel for the cost of the replacement license, payable to the DGCA.
  - (3) Police report from the local police office
- (b) An application for the replacement of a lost or destroyed medical certificate shall

be made by letter to the DGCA, Aviation Medical Center, accompanied by a receipt for the cost of the replacement license, payable to the DGCA.

(c) A person who has lost a license issued under this part, or a medical certificate issued under part 67 of the CASRs, or both, may obtain a facsimile message (fax) from the DGCA confirming that it was issued. The fax may be carried as a license for a period not to exceed 60 days pending his receipt of the duplicate license under Paragraph (a) of (b) of this Part, unless he has been notified that the license has been suspended or revoked. The request for such a fax may be made by letter or fax, including the date upon which a duplicate license was previously requested, if a request has been made, and a check giro or post wesel for the cost of the duplicate license. The request for a fax license is sent to the office listed in Paragraph (a) or (b) of this Part, as appropriate. However, a request for both license and medical certificates at the same time must be sent to the office prescribed in Paragraph (a) of this Part.

#### 61.31 General Limitations

- (a) Type ratings required. No person may act as pilot in command or second in command or Co-pilot of any of the following aircraft unless he holds a type rating:
  - (1) Each type of aircraft certificated for operation with a minimum crew of at least two pilots
  - (2) A large aircraft (except lighter-than-air)
  - (3) A helicopter, for operations requiring an airline transport pilot license.
  - (4) A turbojet powered airplane.
  - (5) Other aircraft specified by the Director General through aircraft type certificate procedures.
- (b) Category and class rating: Carrying another person or operating for compensation or hire. Unless he holds a category and class rating for that aircraft, a person may not act as pilot in command of an aircraft that is carrying another person or is operated for compensation or hire. In addition, he may not act as pilot in command of that aircraft for compensation or hire.
- (c) Category and class rating: other operations. No person may act as pilot in command of an aircraft in solo flight in operation not subject to Paragraph (c) of this Part, unless he meets at least one of the following:
  - (1) He holds a category and class rating appropriate to that aircraft.
  - (2) He has received flight instruction in the pilot operations required by this part, appropriate to the category and class of aircraft for first solo, given to him by a licensed flight instructor who found him competent to solo that category and class of aircraft and has so endorsed his pilot logbook.
- (d) High performance airplanes. A person holding a private or commercial pilot license may not act as pilot in command of an airplane that has more than 200 horsepower, or that has a retractable landing gear, flaps, and a controllable propeller, unless he has received flight instruction from an authorized flight instructor who has certified in his logbook that he is competent to pilot an airplane that has more than 200 horsepower, or that has a retractable landing

gear, flaps, and a controllable propeller, as the case may be. However, this instruction is not required if he has logged flight time as pilot in command in high performance airplanes before the effective date of this part of the CASRs.

- (e) High Altitude airplanes.
  - (1) Except as provided in Paragraph (f) (2) of this Part, no person may act as pilot in command of a pressurized airplane that has a service ceiling or maximum operating altitude, whichever is lower, above 25,000 feet MSL unless that person has completed the ground and flight training specified in Paragraphs (f) (1) (I) and (ii) of this Part and has received a logbook or training record endorsement from an authorized instructor certifying satisfactory completion of the training. The training shall consist of:
  - Ground training that includes instruction on high altitude aerodynamics and meteorology; respiration; effects, symptons, and causes of hypoxia any other high altitude sicknesses; duration of consciousness effects of without supple-mental oxygen; prolonged usage supplemental oxygen; causes and effects of gas expansion and gas bubble formations; preventive measures for eliminating gas expansion, bubble formations, and high altitude sicknesses; phenomena and incidents of decompression; and any other physiological aspects of high altitude flight; and
  - (ii) Flight training in an airplane, or in a simulator that meets the requirement of Part 121.407 of the CASRs, and which representative of an airplane is as described in Paragraph (f) (1) of this Part. This training shall include normal cruise flight operations while operating above 25,000 feet MSL; the proper emergency procedures for simulated rapid decompression without actually depressurizing the airplane; and emergency descent procedures;
  - (2) The training required in Paragraph (f) (1) of this Part is not required if a person can document accomplishment of any of the following in an airplane, or in a simulator that meets the requirements of Part 121.407 of this Part, and that is representative of an airplane described in Paragraph (f) (1) of this Part;
    - (i) Served as pilot in command prior to the effective date of this part of the CASRs
    - (ii) Completed a pilot proficiency check for a pilot license or rating conducted by the DGCA prior to the effective date of this part of the CASRs.
    - (iii) Completed an official pilot in command check by an approved check pilot for the military services of the Republic of Indonesia; or
    - (iv) Completed a pilot in command proficiency check under Parts 12, 125, or 135 conducted by the DGCA or by a DGCA approved check pilot.
- (f) Tail wheel Airplanes. No person may act as pilot in command of a tail wheel airplane unless that pilot has received flight instruction from an authorized flight instructor who has found the pilot competent to operate a tail wheel airplane and has made a one-time endorsement so stating in the pilot's logbook. The endorsement must certify that the pilot is competent in normal and crosswind takeoffs and landings, wheel landings unless the manufacturer has recommended against such landings, and go-around procedures. This endorsement is not required if a pilot has logged flight time as pilot in command of tail wheel airplanes before the effective date of this part of the CASRs.

(g) Exception. This Part does not require a class rating for gliders, or category and class ratings for aircraft that are not type certificated as airplane, helicopter, or lighter-than-air aircraft. In addition, the rating limitations of this Part do not apply to:

- (1) The holder of a student pilot license;
- (2) The holder of a sport pilot license when operating under the provisions of Part 61.101 (f), (g), and (h).
- (3) The holder of a pilot license when operating an aircraft under the authority of an experimental or provisional type license;
- (4) An applicant when taking a flight test given by the Director General; or
- (5) The holder of a pilot license with a lighter-than-air category rating when operating a hot air ballon without an airborne heater.

#### 61.33 Tests: General Procedure

Tests prescribed by or under this part are given at times and places, and by persons, designated by the Director General.

#### 61.35 Written tests: Prerequisites and passing grades.

- (a) An applicant for a written test must-
  - (1) Show that he has satisfactorily completed the ground instruction course required by this part for the license or rating sought;
  - (2) Present as personal identification a license, driver's license, *Kartu Tanda Penduduk* (KTP), or other officially-approved document; and
  - (3) Present a birth certificate or other official document showing that he meets the age requirement prescribed in this part for the license sought not later than 2 years from the date of application for the test.
- (b) The minimum passing grade is specified by the Director General on each written test sheet or booklet furnished to the applicant. This Part does not apply to the written test for an airline transport pilot license or a rating associated with that license.

#### 61.37 Written Tests: Cheating or other Unauthorized Conduct

- (a) Excep as authorized by the Director General, no person may:
  - (1) Copy, or intentionally remove, a written test under this part;
  - (2) Give to another, or receive from another, any part or copy of that test;
  - (3) Give help on that test to, or receive help on that test from, any person during the period that test is being given;
  - (4) Take any part of that test on behalf of another person;
  - (5) Use any material or aid during the period that test is being given; or
  - (6) Internationally cause, assist, or participate in any act prohibited by this

paragraph.

(b) No person whom the Director General finds to have committed an act prohibited by Paragraph (a) of this Part is eligible for any airman or ground instructor license or rating, or to take any test thereof, under the CASRs for a period of 1 year after the date of that act. In addition, the commission of that act is a basis for suspending or revoking any airman or ground instructor license or rating held by that person.

#### 61.39 Prerequisites for Flight Tests

- (a) To be eligible for a flight test for a license, or an aircraft type, or instrument rating issued under this part, the applicant must:
  - (1) Have passed any required written test since the beginning of the 24<sup>th</sup> calendar month before the month in which he takes the flight test;
  - (2) Have the applicable instruction and aeronautical experience prescribed in this part;
  - (3) Hold a current medical certificate appropriate to the license he seeks or, in the case of a rating to be added to his pilot license, at least a second-class medical certificate issued since the beginning of the 12<sup>th</sup> calendar month before the month in which he takes the flight test;
  - (4) Except for a flight test for an airline transport pilot license, meet the age requirement for the issuance of the license or rating he seeks; and
  - (5) Have a written statement from an appropriately licensed flight instructor certifying that he has given the applicant flight instruction in preparation for the flight test within 60 days preceding the date of application, and finds him competent to pass the test. However, an applicant need not have this written statement if he holds a foreign pilot license issued by a contracting State to the Convention on International Civil Aviation that authorizes at least the pilot privileges of the license sought by him.

#### 61.41 Flight Instruction Received from Flight Instructors Not Licensed by DGCA

Flight instruction may be credited toward the requirements for a pilot license or rating issued under this part if it is received from:

- (a) An Armed Force (ABRI) of either the Republic of Indonesia or a foreign contracting State to the Convention on International Civil Aviation in a program for training military pilots; or
- (b) A flight instructor who is authorized to give that flight instruction by the licensing authority of a foreign contracting State to the Convention on International Civil Aviation and the flight instruction is given outside the Republic of Indonesia.

#### 61.43 Flight tests: General procedures.

(a) The ability of an applicant for a private or commercial pilot license, or for an aircraft or instrument rating on that license to perform the required pilot operations is

based on the following:

(1) Executing procedures and maneuvers within the aircraft's performance capabilities and limitations, including use of the aircraft's systems.

- (2) Executing emergency procedures and maneuvers appropriate to the aircraft.
- (3) Piloting the aircraft with smoothness and accuracy
- (4) Exercising judgement
- (5) Applying his aeronautical knowledge
- (6) Showing that he is the master of the aircraft, with the successful outcome of a procedure or maneuver never seriously in doubt.
- (b) If the applicant fails any of the required pilot operations in accordance with the applicable provisions of paragraph (a) of this section, the applicant fails the flight test. The applicant is not eligible for the license or rating sought until he passes any pilot operations he has failed.
- (c) The examiner or the applicant may discontinue the test at any time when the failure of a required pilot operation makes the applicant ineligible for the license or rating sought. If the test is discontinued the applicant is entitled to credit for only those entire pilot operations that he has successfully performed.

#### 61.45 Flight Tests: Required Aircraft and Equipment

- (a) General. An applicant for a license or rating under this part must furnish, for each flight test that he is required to take, an appropriate aircraft of Indonesian registry that has a current standard or limited airworthiness certificate. However, the applicant may, at the discretion of the DGCA inspector or designated airmen conducting the test, furnish an aircraft of Indonesia Registry that has a current airworthiness certificate other than standard or limited, an aircraft of foreign registry that is properly licensed by the country of registry, or a military aircraft in an operational status if its use is allowed by an appropriate military authority.
- (b) Required equipment (other than controls). Aircraft furnished for a flight test must have
  - (1) The equipment for each pilot operation required for the flight test
  - (2) No prescribed operating limitation that prohibit any pilot operation required on the test:
  - (3) Pilot seats with adequate visibility for each pilot to operate the aircraft safely, except as provided in paragraph (d) of this Part; and
  - (4) Cockpit and outside visibility adequate to evaluate the performance of the applicant, where an additional jump sat is provided for the examiner.
- (c) Required controls. An aircraft (other lighter-than-air) furnished under Paragraph (a) of this Part for any pilot flight test must have engine power control and flight controls that are easily reached and operable in a normal manner by both pilots, unless after considering all the factors, the examiner determines that the flight test can be conducted safely without them. However, an aircraft having other controls such as nose wheel steering, brakes, switches, fuel selectors, and engine air flow controls that are not easily reached and operable in a normal manner by both

pilots may be used, if more than one pilot is required under its airworthiness certificate, or if the examiner determines that the flight can be conducted safely.

- (d) Simulated instrument flight equipment. An applicant for any flight test involving flight maneuvers solely by reference to instruments must furnish equipment satisfactory to the examiner that excludes the visual reference of the applicant outside of the aircraft.
- (e) Aircraft with single controls. At the discretion of the examiner, an aircraft furnished under Paragraph (a) of this Part for a flight test may, in the cases listed below, have a single set of controls. In such cases, the examiner determines the competence of the applicant by observation from the ground or from another aircraft.
  - (1) A flight test for addition of a class or type rating, not involving demonstration of instrument skills, to private or commercial pilot license.
  - (2) A flight test in a single place gyroplane for-
    - (i) A private pilot license with a rotorcraft category rating and gyroplane class rating, in which case the license bears the limitation "rotorcraft single place gyroplane only", or
    - (ii) Addition of a helicopter category rating and gyroplane class rating to a pilot license, in which case a license higher than a private pilot license bears the limitation "helicopter single place gyroplane, private pilot privileges, only"

The limitations prescribed by this subparagraph may be removed if the holder of the license passes the appropriate flight test in a gyroplane with two pilot stations or otherwise passes the appropriate flight test for a rotorcraft category rating.

#### 61.47 Flight Test: Status of DGCA Inspectors and Designated Examiners

A DGCA inspector or designated examiner conducts the flight test of an applicant for a pilot license or rating for the purpose of observing the applicant's ability to perform satisfactorily the procedures and maneuvers on the flight test. The inspector or examiner is not pilot in command of the aircraft during the flight test unless he acts as the PIC for the flight, or a portion of the flight, by prior arrangement with the applicant or other person who would otherwise act as a pilot in command.

#### 61.49 Retesting After Failure

- (a) An applicant for a written or practical test who fails that test may not apply for retesting until 30 days after the date the test was failed. However, in the case of a first failure, the applicant may apply for retesting before the 30 days have expired provided the applicant presents a logbook or training record endorsement from an authorized instructor who has given the applicant remedial instruction and finds the applicant competent to pass the test.
- (b) An applicant for a flight instructor license with an airplane category rating, or for a Flight Instructor License with a glider category rating, who has failed the practical test due to deficiencies of knowledge or skill relating to stall awareness, spin entry, spins, or spin recovery techniques must, during the retest, satisfactorily demonstrate both knowledge and skill in these areas in an aircraft of the

appropriate category that is certificated for spins.

#### 61.51 Pilot logbooks.

(a) The aeronautical training and experience used to meet the requirements for a license or rating, or the recent experience requirements of this part must be shown by a reliable record. The logging of other flight time is not required.

- (b) Logbook entries. Each pilot shall enter the following information for each flight or lesson logged:
  - (1) General.
    - (i) Date
    - (ii) Total time of flight
    - (iii) Place, or points of departure and arrival
    - (iv) Type and identification of aircraft.
  - (2) Type of pilot experience or training
    - (i) Pilot in command or solo
    - (ii) Second in command
    - (iii) Flight instruction received from an authorized flight instructor
    - (iv) Instrument flight instruction from an authorized flight instructor
    - (v) Pilot ground trainer instruction
    - (vi) Participating crew (lighter-than-air).
    - (vii) Other pilot time
  - (3) Conditions of flight
    - (i) Day or night
    - (ii) Actual instrument
    - (iii) Simulated instrument conditions.

#### (c) Logging of pilot time

- (1) Solo flight time. A pilot may log as solo flight time only that flight time when he is the sole occupant of the aircraft. However, a student pilot may also log as solo flight time that time during which he acts as the pilot in command of an airship requiring more than one flight crewmember.
- (2) Pilot in command flight time.
  - A sport, private, or commercial pilot may log as pilot in command time only that flight time during which that pilot:
    - (A) Is the sole manipulator of the controls of an aircraft for which the pilot is rated; or
    - (B) When the pilot is the sole occupant of the aircraft; or
    - (C) Except for a sport pilot, when acting as pilot in command of an aircraft on which more than one pilot is required under
      - 1) The type certification of the aircraft, or
      - 2) The regulations under which the flight is conducted
  - (ii) An airline transport pilot may log as pilot in command time all of the flight time during which he acts as a flight instructor
  - (iii) A licensed flight instructor may log as pilot in command time all flight time during which he acts as a flight instructor
- (3) Second in command flight time. A pilot may log as second in command time all flight time during which he acts as second in command of an aircraft on which more than one pilot is required under the type certification of the

aircraft, or the regulations under which the flight is conducted.

(4) Instrument flight time. A pilot may log as instrument flight time only that time during which he operates the aircraft solely by reference to instruments, under actual or simulated instrument flight conditions. Each entry must include the place and type of each instrument flight. An instrument flight instructor may log as instrument time that time during which he acts as instrument flight instructor in actual instrument weather conditions.

(5) Instrument time. All time logged as flight instruction, instrument flight instruction, pilot ground trainer instruction, or ground instruction time must be certified by the appropriately rated and licensed instruction from whom it was received.

#### (d) Presentation of logbook

- (1) A pilot must present his logbook ( or other record required by this Part) for inspection upon reasonable request by the Director General or his authorized representative.
- (2) A student pilot must carry his logbook (or other record required by this Part) with him on solo cross-country flights, as evidence of the required instructor clearances and endorsements.
- (3) A sport pilot must carry his logbook that has the required instructor endorsement on all solo flights.
  - In excess of 50 nautical miles from an airport at which instruction was received;
  - (ii) In airspace in which communication with air traffic control is required;
  - (iii) Between sunset and sunrise; and
  - (iv) In an aircraft for which the pilot is not rated.

#### 61.53 Operations during Medical Deficiency

No person may act as pilot in command, or in any other capacity as a required pilot flight crew member while he has a known medical deficiency, or increase of a known medical deficiency, that would make him unable to meet the requirements for his current medical certificate.

#### 61.55 Second Command Qualifications

- (a) Except as provided in Paragraph (d) of this Part, no person may serve as second in command of an aircraft type licensed for more than one required pilot flight crewmember unless that person holds-
  - (1) At least a current private pilot license with appropriate category and class rating;
  - (2) An appropriate instrument rating in the case of flight under IFR.
- (b) Except as provided in Paragraph (d) of this Part, no person may serve as second in command of an aircraft type licensed for more than one required pilot flight crewmember unless, since the beginning of the 12<sup>th</sup> calender month before the month in which the pilot serves, the pilot has, with respect to that type of aircraft;
  - (1) Become familiar with all information concerning the aircraft's

powerplant, major components and systems, major appliances, performance and limitations, standard and emergency operating procedures, and the contents of the approved aircraft flight manual or approved flight manual material, placards and markings.

- (2) Except as provided in Paragraph (e) of this Part, performed and logged;
  - Three take off and three landings to a full stop in the aircraft as the sole manipulator of the flight controls; and
  - (ii) Engine out procedures and maneuvering with an engine out while executing the duties of a pilot in command. For airplanes, this requirement may be satisfied in a simulator acceptable to the Director General.

For the purpose of meeting the requirements of Paragraph (b)(2) of this Part, a person may act as second in command of a flight under day VFR or day IFR, if no person or property, other than as necessary for the operation, are carried.

- (c) If a pilot complies with the requirements in Paragraph (b)(2) of this Part in the calendar month before, or the calendar month after, the month in which compliance with those requirements is due, he is considered to have complied with them in the month they are due.
- (d) This Part does not apply if a pilot:
  - (1) Meets the pilot in command proficiency check requirements of Part 121,125, or 135 of the CASRs;
  - (2) Is designated as the second in command of an aircraft operated under the provisions of part 121,125, or 135 of the CASRs; or
  - (3) Is designated as the second in command of an aircraft for the purpose of receiving flight training by this Part and no passenger or cargo are carried on that aircraft
- (e) The holder of a commercial or airline transport pilot license with appropriate category and class rating need not meet the requirements of Paragraph (b)(2) of this Part for the conduct of ferry flights, aircraft flight test, or airborne equipment evaluation, if no persons or property other than as necessary for the operations are carried.

#### 61.56 Flight Review

- (a) A flight review consists of a minimum of 1 hour of flight instruction and 1 hour of ground instruction. The review must include.
  - (1) A review of the current general operating and flight rules of Part 91 of the CASRs; and
  - (2) A review of those maneuvers and procedures which, at the discretion of the person giving the review, are necessary for the pilot to demonstrate the safe exercise of the privileges of the pilot license.
- (b) Glider pilots may substitute a minimum of three instructional flights in a glider, each of which includes a 360 degree turn, in lieu of the 1 hours of flight instruction required in Paragraph (a) of this Part.
- (c) Except as provided in Paragraph (d) and (e) of this Part, no person may, after six months from the effective date of this part of the CASRs, act as pilot in command

of an aircraft unless, since the beginning of the 24<sup>th</sup> calendar month before the month in which that pilot acts as pilot in command, that person has-

- (1) Accomplished a flight review given in an aircraft for which that pilot is rated by an appropriately rated instructor licensed under this part or other person designated by the Director General
- (2) A logbook endorsed by the person who gave the review certifying that the person who gave the review certifying that the person has satisfactorily completed the review.
- (d) A person who has, within the period specified in Paragraph (c) of this Part, satisfactorily completed a pilot proficiency check conducted by the DGCA, a designated examiner, a DGCA-approved check pilot, or a Republic of Indonesia Armed Force (ABRI) check pilot, for a pilot license, rating, or operating privilege, need not accomplish the flight review required by this Part.
- (e) A person who holds a current Flight Instructor License who has, within the period specified in Paragraph (c) of this Part, satisfactorily completed a renewal of a Flight Instructor License under the prevision of Part 61.197 (c), need not accomplish the 1 hour of ground instruction specified in Subparagraph (a)(1) of this Part.
- (f) The requirements of this Part may be accomplish in combination with the requirements of Part 61.57 and other applicable recency requirements at the discretion of the instructor.

#### 61.57 Recent Flight Experience: Pilot In Command

- (a) General experience. No person may act as pilot in command of an aircraft carrying passengers, nor of an aircraft certificated for more than one required pilot flight crewmember, unless within the preceding 90 days, he has made three take offs and three landings as the sole manipulator of the flight controls in an aircraft of the same category and class and, if a type rating is required, of the same type. If the aircraft is a tailwheel airplane, the landings must have been made to as full stop in a tailwheel airplane. For the purpose of meeting the requirements of the paragraph, a person may act as pilot in command of a flight under day VFR or day IFR if no person or property other than as necessary for his compliance thereunder, are carried. This paragraph does not apply to operations requiring an airline transport pilot license, or to operations conducted under Part 135 of the CASRs.
- (b) Night experience. No person may act as pilot in command of an aircraft carrying passengers during the period beginning 1 hour after sunset and ending 1 hour before sunrise (as published in the Air Almanac) unless, within the preceding 90 days, he has made at least three takeoffs and three landings to a full stop during that period in the category and class of aircraft to be used. This paragraph does not apply to operations requiring an airline transport pilot license.
- (c) Instrument experience.
  - (1) Recent IFR experience. No pilot may act as pilot in command under IFR, nor in weather conditions less than the minimums prescribed for VFR, unless he has, within the past 6 calendar months
    - (i) In the case of an aircraft other than a glider, logged at least 6 hours of instrument time under actual or simulated IFR conditions, at least 3 of

- which were in flight in the category of aircraft involved, including at least six instrument approaches, or passed an instrument competency check in the category of aircraft involved.
- (ii) In the case of a glider, logged at least 3 hours of instrument time, at least half of which were in a glider or an airplane. If a passenger is carried in the glider, at least 3 hours of instrument flight time must have been in gliders.
- (2) Instrument competency check. A pilot who does not meet the recent instrument experience requirements of Paragraph (e)(1) of this Part during the prescribed time or 6 calendar months thereafter may not serve as pilot in command under IFR, nor in weather conditions less than the minimums prescribed for VFR, until he passes an instrument competency check in the category of aircraft involved, given by DGCA inspector, a member of an Armed Force (ABRI) of the Republic of Indonesia authorized to conduct flight tests, a DGCA-approved check pilot, or a licensed instrument flight instructor. The Director General may authorize the conduct of part or all of this check in a pilot ground trainer equiped for instruments or an aircraft simulator.

## 61.58 Pilot in Command Proficiency check: Operation of Aircraft Requiring More Than One Pilot

- (a) No person may act as pilot in command of an aircraft that is type certificated for more than one required pilot crewmember unless the proficiency checks or flight checks prescribed in Paragraph (b) and (c) of this Part are satisfactorily completed.
- (b) Since the beginning of the 12<sup>th</sup> calendar month before the month in which a person acts as pilot in command or co-pilot of an aircraft that is type certificated for more than one required pilot crewmember he must have completed one the following:
  - (1) For an airplane a proficiency or flight check given to him by a DGCA inspector or designated examiner in either an airplane that is type certificated for more than one required pilot crewmember, or in an approved simulator. A proficiency or flight check given in an approved simulator shall include at least those maneuvers and procedures (set forth by the DGCA) which may be performed in a simulator or training device.
  - (2) For other aircraft a proficiency or flight check in aircraft that is type certificated for more than one required pilot crewmember given to him by a DGCA inspector or designated examiner which includes those maneuvers and procedures required for the original issuance of a type rating for the aircraft used in the check.
  - (3) A pilot in command proficiency check given to him in accordance with the provisions for that check under Parts 121, 125, or 135 of the CASRs.
  - (4) A flight test required for an aircraft type rating.
  - (5) An initial or periodic flight check for the purpose of the issuance of a designated examiner or DGCA-approved checks pilot designation.
  - (6) A military proficiency check required for pilot in command and instrument privileges in an aircraft which the military requires to be operated by more than one pilot.

(c) Except as provided in Paragraph (d) of this Part, since the beginning of the 24<sup>th</sup>

calendar month before the month in which a person acts as pilot in command of an aircraft that is type certificated for more than one required pilot crewmember he must have completed one of the following proficiency or flight checks in the particular type aircraft in which he is to serve as pilot in command:

- (1) A proficiency check of flight check given to him by a DGCA inspector or a designated examiner which includes the maneuvers, procedures, and standards required for the original issuance of a type rating for the aircraft used in the check.
- (2) A pilot in command proficiency check given to him in accordance with the provisions for that check under Parts 121,123, or 135 of the CASRs.
- (3) A flight test required for an aircraft type rating.
- (4) An initial or periodic flight check for the purpose of the issuance of a designated examiner or DGCA-approved checks pilot designation.
- (5) A military proficiency check required for pilot in command and instrument privileges in an aircraft which the military requires to be operated by more than one pilot.
- (d) For airplanes, the maneuvers and procedures required for the checks and test prescribed in Paragraphs (c) (1),(2),(4), and (5) of this Part, and Paragraph (c)(3)of this Part in the case of type ratings obtained in conjunction with a Part 121 training program may be performed in a simulator or training device if:
  - (1) The maneuver or procedure can be performed in a simulator or training device as set forth by the DGCA; and
  - (2) The simulator or training device is one that is approved for the particular maneuver or procedure.
- (e) For the purpose of meeting the proficiency check requirements of Paragraphs (b) and (c) of this Part, a person may act as pilot in command of a flight under day VFR or day IFR if no persons or property, other than as necessary for compliance with those paragraphs, are carried.
- (f) If a pilot takes the proficiency check required by Paragraph (a) of this Part in the calendar month before, or the calendar month after, the month in which it is due, he is considered to have taken it in the month it is due.

## 61.59 Falsification, Reproduction, or Alteration of Applications, Licenses, Logbooks, Reports, or Records

- (a) No person may make or cause to be made;
  - (1) Any fraudulent or intentionally false statement on any application for a license rating, or duplicate thereof, issued under this part;
  - (2) Any fraudulent or intentionally false entry in any logbook, record, or report that is required to be kept, made, or used, to show compliance with any requirement for the issuance, or exercise of the privileges, of any license or rating under this part.
  - (3) Any reproduction, for fraudulent purpose, of any license or rating under this part; or
  - (4) Any alteration of any license or rating under this part.

(b) The commission by any person of an act prohibited under Paragraph (a) of this Part is a basis for suspending or revoking any pilot or ground instructor license or rating held by that person.

#### 61.60 Change of Address

The holder of a pilot or Flight Instructor License who has made a change in his permanent mailing adress may not after 30 days from the date he moved, exercise the privileges of his license unless he has notified in writing the DGCA of his new address.

#### SUBPART B - AIRCRAFT RATINGS AND SPECIAL LICENSES

#### 61.61 Applicability.

This subpart prescribes the requirements for the issuance of additional aircraft ratings after a pilot or instructor license is issued, and the requirements and limitations for special pilot licenses and ratings issued by the Director General.

#### 61.63 Additional aircraft ratings (other than Airline Transport Pilot).

- (a) General. To be eligible for an aircraft rating after his license is issued to him an applicant must meet the requirements of Paragraphs (b) through (d) of this Part, as appropriate to the rating sought.
- (b) Category rating. An applicant for a category rating to be added on his pilot license must meet the requirements of this part for the issued of the pilot license appropriate to the privileges for which the category rating is sought. However, the holder of a category rating for powered aircraft is required to take a written test for the addition of a category rating on his pilot license.
- (c) Class rating. An applicant for an aircraft class rating to be added on his pilot license must
  - (1) Present a logbook record certified by an authorized flight instructor showing that the applicant has received flight instruction in the class of aircraft for which a rating is sought and has been found competent in the pilot operations appropriate to the pilot license to which his category rating applies; and
  - (2) Pass a flight test appropriate to his pilot license and applicable to the aircraft category and class rating sought.

A person who holds a lighter-than-air category rating with a free balloon class rating, who seeks an airship class rating, must meet the requirements of Paragraph (b) of this Part as though seeking a lighter-than-air category rating.

- (d) Type rating. An applicant for a type rating to be added on his pilot license must meet the following requirements:
  - (1) He must hold, or concurrently obtain, an instrument rating appropriate to the aircraft for which a type rating is sought.
  - (2) He must pass a flight test showing competence in pilot operations appropriate to the pilot certificate he holds and to the type rating sought.
  - (3) He must pass a flight test showing competence in pilot operations under instrument flight rules in an aircraft of the type for which the type rating is sought or, in the case of a single pilot station airplane, meet the requirements of Paragraph (d)(3)(i) of this Section, whichever is applicable.
    - (i) The applicant must have met the requirements of this paragraph in a multiengine airplane for which a type rating is required.
      - (ii) if he does not meet the requirements of paragraph (d)(3)(i) of this section, he must meet the requirements of this subparagraph in either

a single or multiengine airplane, and have the recent instrument experience set forth in Section 61.57 (e), when he applies for the flight test under Paragraph (d) (2) of this part.

- (4) An applicant who does not meet the requirements of Paragraph (d)(1) and (3) of this part may obtain a type rating limited to "VFR only". Upon meeting these instrument requirements or the requirements of part 61.73 (e)(2), the "VFR only", limitation may be removed for the particular type of aircraft in which competence is shown.
- (5) When an instrument rating is issued to the holder of one or more type ratings, the type ratings on the amended certificate bear the limitation described in Paragraph (d)(4) of this section for each airplane type rating for which he has not shown his instrument competency under this paragraph.
- (6) After six months from the effective date of this part of the CASRs, an applicant for a type rating to be added to a pilot certificate must
  - (i) Have completed ground and flight training on the maneuvers and procedures required by the DGCA of this part that is appropriate to the airplane for which a type rating is sought, and received an endorsement from an authorized instructor in the person's logbook or training records certifying satisfactory completion of the training; or
  - (ii) For a pilot employee of a Part 121 or Part 135 certificate holder, have completed the certificate holder's approved ground and flight training that is appropriate to the airplane for which a rating is sought.

#### 61.65 Instrument Rating

- (a) General. To be eligible for an instrument rating (airplane) or an instrument rating (helicopter), an applicant must:
  - Hold at least a current private pilot license with an aircraft rating appropriate to the instrument rating sought;
  - (2) Be able to read, speak, and understand the English language; and
  - (3) Comply with the applicable requirements of this Part.
- (b) Aeronautical knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of an instrument rating, in at least the following subjects:

Air law

(1) Rules and regulations relevant to flight under IFR; related air traffic services practices and procedures;

Aircraft general knowledge for the aircraft category being sought

- (2) Use, limitation and serviceability of avionics, electronic devices and instruments necessary for the control and navigation of aircraft under IFR and in instrument meteorological conditions; use and limitations of autopilot;
- (3) Compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;

Flight performance and planning for the aircraft category being sought

- (4) Pre-flight preparations and checks appropriate to flight under IFR;
- (5) Operational flight planning; preparation and filling of air traffic services flight plans under IFR; altimeter setting procedures;

Human performance for the aircraft category being sought

(6) Human performance relevant to instrument flight in aircraft including principles of threat and error management;

Meteorology for the aircraft category being sought

- (7) Application of aeronautical meteorology; interpretation and use of reports, charts and forecast; codes and abbreviations; use of, and procedures for obtaining, meteorological information; altimetry;
- (8) Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance;
- (9) In the case of helicopters and powered-lifts, effects of rotor icing;

Navigation for the aircraft category being sought

- (10) Practical air navigation using radio navigation aids;
- (11) Use, accuracy and reliability of navigation systems used in departure, enroute, approach and landing phases of flight; identification of radio navigation aids;

Operational procedures for the aircraft category being sought

- (12) Application of threat and error management to operational performance;
- (13) Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach;
- (14) Precautionary and emergency procedures; safety practices associated with flight under IFR; obstacle clearance criteria;

#### Radiotelephony

- (15) Communication procedures and phraseology as applied to aircraft operations under IFR; action to be taken in case of communication failure.
- (c) Skill and flight instruction airplanes. An applicant for the flight test for an instrument rating (airplane) must present a logbook record certified by an authorized flight instructor showing that he received instrument flight instruction in an airplane in the following pilot operations, and has been found competent in each of them

#### Skill

- (1) Recognize and manage threats and errors;
- (2) Operate the aircraft for the category being sought, within its limitations;
- (3) Complete all maneuvers with smoothness and accuracy;
- (4) Exercise good judgment and airmanship;
- (5) Apply aeronautical knowledge; and
- (6) Maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or maneuver is assured.

#### Flight instruction

 Pre-flight procedures, including the use of the flight manual or equivalent document, and appropriate air traffic services documents in the preparation of an IFR flight plan;

- (2) Pre-flight inspection, use of checklists, taxiing and pre-take-off checks;
- (3) Procedures and maneuvers for IFR operation under normal, abnormal and emergency conditions covering at least;
  - i. Transition to instrument flight on take-off;
  - ii. Standard instrument departures and arrivals;
  - iii. En-route IFR procedures;
  - iv. Holding procedures;
  - v. Instrument approaches to specified minima;
  - vi. Missed approach procedures;
  - vii. Landing from instrument approaches;
- (4) In-flight maneuvers and particular flight characteristics.
- (d) Instrument instruction and skill (helicopter). An applicant for the flight test for an instrument rating (helicopter) must present a logbook record certified to by an authorized flight instructor showing that he has received instrument flight instruction in a helicopter in the following pilot operations, and has been found competent in each of them:
  - (1) The control and accurate maneuvering of a helicopter solely by reference to instruments.
  - (2) IFR navigation by the use of the VOR and ADF systems, including compliance with air traffic instructions and procedures.
  - (3) Instrument approaches to published minimums using the VOR, ADF, and ILS system (instruction in the use of the ADF and ILS may be received in an instrument ground trainer, and instruction in the use of the ILS glide slope may be received in an airborne ILS simulator).
  - (4) Cross-country flying under simulated or actual IFR conditions, on airways or as routed by ATC, including one flight of at least 100 nautical miles, including VOR, ADF, and ILS approaches at different airports.
  - (5) Simulated IFR emergencies, including equipment malfunctions, missed approach procedures, and deviations to unplanned alternates.
- (e) Flight experience. An appliance for an instrument rating must have at least the following flight time as a pilot:
  - (1) A total of 125 hours of pilot flight time, of which 50 hours are as pilot in command in cross-country flight in a powered aircraft with other than a student pilot license. Each cross-country flight must have a landing at a point more than 50 nautical miles from the original departure point.

(2) 40 hours of simulated or actual instrument time, of which not more than 20 hours may be instrument instruction by an authorized instructor in an instrument ground trainer acceptable to the Director General.

- (3) 15 hours of instrument flight instruction by an authorized flight instructor, including at least 5 hours in an airplane or a helicopter, as appropriate.
- (f) Written test. An applicant for an instrument rating must pass a written test appropriate to the instrument rating sought on the subjects in which ground instruction is required by Paragraph (b) of this Part.
- (g) Practical test. An applicant for an instrument rating must pass a flight test in an airplane or a helicopter, as appropriate. The test must include instrument flight procedures selected by the inspector conducting the test to determine the applicant's ability to perform competently the IFR operations on which instruction is required by Paragraph (c) or (d) of this Part.
- (h) Applicants who hold a private pilot license shall have established their hearing acuity on the basis of compliance with the hearing requirements for the issue of a Class 1 Medical Assessment.
- (i) The privileges of the holder of an instrument rating with a specific aircraft category shall be to pilot that category of aircraft under IFR.

#### 61.67 Category II Pilot Authorization Requirements

- (a) General. An applicant for a category II pilot authorization must hold-
  - A pilot license with an instrument rating or an airline transport pilot license;
     and
  - (2) A type rating for the aircraft type.
- (b) Experience requirements. Except for the holder of an airline transport pilot license, an applicant for a Category II authorization must have at least
  - (1) 50 hours of night flight time under VFR conditions as pilot in command;
  - (2) 75 hours of instrument time under actual or simulated conditions that may include 25 hours in a synthetic trainer; and
  - (3) 250 hours of cross-country flight time as pilot in command.

Night flight and instrument flight time used to meet the requirements of Paragraphs (b) (1) and (2) of this Part may also be used to meet the requirements of Paragraph (b)(3) of this Part.

- (c) Practical test required.
  - (1) The practical test must be passed by
    - (i) An applicant for issue or renewal of an authorization; and
    - (ii) An applicant for the addition of another type aircraft to his authorization.
  - (2) To be eligible for the practical test an applicant must meet the requirements of Paragraph (a) of this Part and, if he has not passed a practical test since the beginning of the twelfth calendar month before the test, he must meet the

following recent experience requirements:

(i) The requirements of Part 61.57(e)

(ii) At least six ILS approaches since the beginning of the sixth calendar month before the test. These approaches must be under actual or simulated instrument flight conditions down to the minimum landing altitude for the ILS approach in the type aircraft in which the flight test is to be conducted. However, the approaches need not be conducted down to the decision heights authorized for Category II operations. At least three of these approaches must have been conducted manually, without the use of an approach coupler.

The flight time acquired in meeting the requirements of Paragraph (c)(2)(ii) of this Part may be used to meet the requirements of Paragraph (c)(2)(i) of this Part.

- (d) Practical test procedures. The practical test consist of two phases:
  - (1) Phase I Oral operational test. The applicant must demonstrate his knowledge of the following:
    - (i) Required landing distance
    - (ii) Recognition of the decision height.
    - (iii) Missed approach procedures and techniques utilizing computed or fixed attitude guidance display.
    - (iv) RVR, its use and limitation.
    - (v) Use of visual clues, their availability or limitations, and altitude at which they are normally discernible at reduced RVR readings.
    - (vi) Procedures and techniques related to transition from non-visual to visual flight during a final approach under reduced RVR.
    - (vii) Effects of vertical and horizontal windshear.
    - (viii) Characteristics and limitations of the ILS and runway lighting system.
    - (ix) Characteristics and limitations of the flight Director General system, auto approach coupler (including split axis type if equipped), auto throttle system (if equipped), and other required Category II equipment.
    - (x) Assigned duties of the second in command during Category II approaches
    - (xi) Instrument and equipment failure warning systems.
  - (2) Phase II flight test. The flight test must be taken in an aircraft that meets the requirements of Part 91 of the CASRs for Category II operations. The test consist of at least two ILS approaches to 100 feet including at least one landing and one missed approach. All approaches must be made with the approved flight control guidance system. However, if an approved automatic approach coupler is installed, at least one approach must be made manually. In the case of a multiengine aircraft that has performance capability to execute a missed approach with an engine out, the missed approach must be executed with one engine set in idle or zero thrust position before reaching the middle marker. The required flight maneuvers must be performed solely by reference to instruments and in coordination with a second in command who holds a class rating and, in the case of a large aircraft or a small turbojet aircraft, a type rating for that aircraft.

#### 61.69 Glider towing: Experience and Instruction Requirements

No person may act as pilot in command of an aircraft towing a glider unless he meet the

#### following requirements:

(a) He holds a current pilot license (other than a student or sport pilot license) issued under this part.

- (b) He has an endorsement in his pilot logbook from a person authorized to give flight instruction in gliders, certifying that he has received ground and flight instruction in gliders and is familiar with the techniques and procedures essential to the safe towing of gliders, including airspeed limitations, emergency procedures, signals used, and maximum angles of bank.
- (c) He has made and entered in his pilot logbook:
  - (1) At least three flights as sole manipulator of the controls of an aircraft towing a glider while accompanied by a pilot who has met the requirements of this Part and made and logged at least 10 flights as pilot in command of an aircraft towing a glider; or
  - (2) At least three flights as sole manipulator of the controls of an aircraft simulating glider towing flight procedures (while accompanied by a pilot who meets the requirements of this Part), and at least three flights as pilot or observer in a glider being towed by an aircraft.
- (d) If he the holds only a private pilot license he must have had, and entered in his pilot logbook at least
  - (1) 100 hours of pilot flight time in powered aircraft; or
  - (2) 200 total hours of pilot flight time in powered or other aircraft.
- (e) Within the preceding 12 calendar months he has;
  - (1) Made at least three actual or simulated glider tows while accompanied by a qualified pilot who meets the requirements of this Part; or
  - (2) Made at least three flights as pilot in command of a glider towed by an aircraft.

#### 61.71 Graduates of approved flying schools: Special rules.

- (a) A graduate of a flying school that is certificated under Part 141 of the CASRs is considered to meet the applicable aeronautical experience requirements of this part if he presents an appropriate graduation certificate within 60 days after the date he is graduated. However, if he applies for a flight test for an instrument rating he must hold a commercial pilot license, or hold a private pilot license and meet the requirements of Part 61.65 (e)(10) and 61.123 (except Paragraph (d) and (e) thereof). In addition, if he applies for a Flight Instructor License he must hold a commercial pilot license.
- (b) An applicant for a license or rating under this part is considered to meet the aeronautical knowledge and skill requirements, or both, applicable to that license or rating if the applicant applies within 90 days after graduation from an appropriate course given by a pilot school that is certificated under Part 141 of the CASRs and is authorized to test applicants on aeronautical knowledge or skill, or both.

#### 61.73 Military Pilots or Former Military Pilots: Special Rules

(a) General. A rated military pilot or former rated military pilot who applies for a private or commercial pilot license, or an aircraft or instrument rating, is entitled to that license with appropriate ratings or to the addition of a rating on the pilot license he holds, if he meets the applicable requirements of this Part. This Part does not apply to a military pilot or former military pilot who has been removed from flying status for lack of proficiency or because of disciplinary action involving aircraft operations.

- (b) Military pilots on active flying status within the preceding 12 calendar months. A rated military pilot or former rated military pilot who has been on active flying status within the 12 calendar month before he applies must pass a written test on the parts of the CASRs relating to pilot privileges and limitations, air traffic and general operating rules, and accident reporting rules. In addition, he must present documents showing that he meets the requirements of Paragraph (d) of this Part for at least one aircraft rating, and that he is, or was at any time since the beginning of the twelfth calendar month before the month in which he applies:
  - (1) A rated military pilot on active flying status in an Armed Force (ABRI) of the Republic of Indonesia; or
  - (2) A rated military pilot of an armed force of a foreign contracting State to the Convention on International Civil Aviation, assigned to pilot duties (other than flight training) with an armed force the Republic of Indonesia who holds, at the time he applies, a current civil pilot license issued by that foreign State authorizing at least the privileges of the pilot license he seeks.
- (c) Military pilots not on active flying status within previous 12 calendar months. A rated military pilot or former military pilot who has not been on active flying status within the 12 calendar months before he applies must pass the appropriate written and flight tests prescribed in this part for the license or rating he seeks. In addition, he must show that he holds a DGCA medical certificate appropriate to the pilot license he seeks and present documents showing that he was, before the beginning of the twelfth calendar month before the month in which he applies, a rated military pilot as prescribed by either Paragraph (b)(1) or (2) of this part.
- (d) Aircraft ratings: Other than airplane category and type. An applicant for a category, class, or type rating (other than airplane category and type rating) to be added on the pilot license he holds, or for which he has applied, is issued that rating if he presents documentary evidence showing one of the following:
  - (1) That he has passed an official Republic of Indonesia military checkout as pilot in command of aircraft of the category, class, or type for which he seeks a rating since the beginning of the twelfth calendar month before the month in which he applies.
  - (2) That he has had at least 10 hours of flight time serving as pilot in command of aircraft of the category, class, or type for which he seeks a rating since the beginning of the twelfth calendar month before the month in which he applies and previously has had an official Republic of Indonesia military checkout as pilot in command of that aircraft.
  - (3) That he has met the requirements of Paragraph (b)(1) or (2) of this Part, has

had an official Republic of Indonesia military checkout in the category of aircraft for which he seeks a rating, and that he passes a DGCA flight test appropriate to that category and the class or type rating he seeks. To be eligible for that flight test, he must have a written statement from an authorized flight instructor, made not more than 60 days before he applies for the flight test, certifying that he is competent to pass the test. A type rating is issued only for aircraft types that the Director has certificated for civil operations. Any rating placed on an airline transport pilot license is limited to commercial pilot privileges.

- (e) Airplane category and type ratings.
  - (1) An applicant for a commercial pilot license with an airplane category rating, or an applicant for the addition of an airplane category rating on his commercial pilot license, must hold an airplane instrument rating, or his license is endorsed with the following limitation: "Not valid for the carriage of passengers or property for hire in airplane on cross-country flights of more than 50 nautical miles, or at night."
  - (2) An applicant for a private or commercial pilot license with an airplane type rating, or for the addition of an airplane type rating on his private or commercial pilot license who holds an instrument rating (airplanes), must present documentary evidence showing that he has demonstrated instrument competency in the type of airplane for which the type rating is sought, or his license is endorsed with the following limitation: "VFR only."
- (f) Instrument rating. An applicant for an airplane instrument rating or a helicopter instrument rating to be added on the pilot license he holds, or for which he has applied, is entitled to that rating if he has, within the 12 calendar months preceding the month in which he applies, satisfactorily accomplished an instrument flight check of a Republic of Indonesia Armed Force (ABRI) in an aircraft of the category for which he seeks the instrument rating and is authorized to conduct IFR flights on airways. A helicopter instrument rating added on an airline transport pilot license is limited to commercial pilot privileges.
- (g) Evidentiary documents. The following documents are satisfactory evidence for the purposes indicated:
  - (1) To show that the applicant is a member of the Armed Forces(ABRI), an official identification card issued to the applicant by an armed force may be used.
  - (2) To show the applicant's discharge or release from an armed force, or his former membership in an armed force, an original or a copy of a certificate of discharge or release may be used.
  - (3) To show current or previous status as a rated military pilot on flying status with a Republic of Indonesia Armed Force, one of the following may be used;
    - An official Republic of Indonesia Armed force order to flight duty as a military pilot.
    - (ii) An official Republic of Indonesia Armed Force form or logbook showing military pilot status.
    - (iii) An official order showing that the applicant graduated form a Republic of Indonesia Military pilot school and is rated as a military pilot.
  - (4) To show flight time in military aircraft as a member of a Republic of Indonesia Armed Force, an appropriate Republic of Indonesia Armed Force form or

- summary of it, or a certified Republic of Indonesia military logbook may be used.
- (5) To show pilot in command status, an official Republic of Indonesia Armed Force record of a military checkout as pilot in command, may be used
- (6) To show instrument pilot qualification, a current instrument card issued by a Republic of Indonesia Armed force, or an official record of the satisfactory completion of an instrument flight check within 12 calendar months preceding the month of the application may be used.

#### 61.75 Pilot License Issued on Basis of a Foreign Pilot License

- (a) Purpose. The holder of a current private, commercial or airline transport pilot license issued by a foreign contracting State to the convention on International Civil Aviation may apply for a pilot license under this Part authorizing him to act as a pilot of a civil aircraft of Indonesian registry.
- (b) License issued. A pilot license is issued to an applicant under this Part, specifying the number and State of issuance of the foreign pilot license on which it is based. An applicant who holds a foreign private pilot license is issued a private pilot license, and an applicant who holds a foreign commercial or airline transport pilot license is issued a commercial pilot license, if-
  - (1) He meets the requirements of this Part;
  - (2) His foreign pilot license does not contain an endorsement that he has not met all of the standards of ICAO for that license; and
  - (3) He does not hold a Republic of Indonesia pilot license of private pilot grade or higher.
  - (4) There is a document from the issuing authority verifying the authenticity and validity of the foreign pilot license.
- (c) Limitation on licenses used as basis for a Republic of Indonesia license. Only one foreign pilot license may be used as a basis for issuing a pilot license under this Part.
- (d) Aircraft ratings issued. Aircraft ratings listed on the applicant's foreign pilot license, in addition to any issued after testing under the provisions of this part, are placed on the applicant's pilot license.
- (e) Instrument rating issued. An instrument rating is issued to an applicant if
  - (1) His foreign pilot license authorizes instrument privileges; and
  - (2) Within 24 calendar months preceding the month in which he makes application for a license, he passed a test on the instrument flight rules in Subpart B of Part 91 of the CASRs, including the related procedures for the operation of the aircraft under instrument flight rules.
- (f) Medical standards and certification. An applicant must submit evidence that he currently meets the medical standards for the foreign pilot license on which the application for a license under this Part is based. A current medical certificate issued under Part 67 of the CASRs is accepted as evidence that the applicant meets those standards. However, a medical certificate issued under part 67 of the

CASRs is not evidence that the applicant meets those standards outside the Republic of Indonesia, unless the State that issued the applicant's foreign pilot license also accepts that medical certificate as evidence of meeting the medical standards for his foreign pilot license.

- (g) Limitations placed on pilot license.
  - (1) If the applicant cannot read, speak, and understand the English language, the Director General places any limitation on the license that he considers necessary for safety.
  - (2) A license issued under this Part is not valid for agricultural aircraft operations, or the operation of an aircraft in which persons or property are carried for compensation or hire. This limitation is also placed on the license.
- (h) Operating privileges and limitations. The holder of a pilot license issued under this Part may act as a pilot of a civil aircraft of Indonesia registry in accordance with the pilot privileges authorized by the foreign pilot license on which that license is based, subject to the limitations of this part and any additional limitations placed on his license by the Director General. He is subject to these limitations while he is acting as a pilot of the aircraft within or outside the Republic of Indonesia. However, he may not act as pilot in command, or in any other capacity as a required pilot flight crewmember, of a civil aircraft of Indonesia registry that is carrying persons or property for compensation or hire
- (i) Flight Instructor License. A pilot license issued under this Part does not satisfy any of the requirements of this part for the issuance of a Flight Instructor License.
- (j) Foreign Pilot License Validation. The holder of a current private, commercial or airline transport pilot issued by a foreign contracting state to the Convention on International Civil Aviation may have its license validated for the purpose of operating an Indonesian registered civil aircraft under the following conditions:
  - (1) The originality of the license is confirmed by the issuing authority prior to the issuance of validation
  - (2) The validity period of the validation is only for 1 (one) year after the date of its issuance or as long as the original medical certificate remain valid. The validity may be extended when the Director finds it to be necessary, but in any case it can be extended only once for a maximum period of 1 (one) year.
  - (3) A foreign pilot license may be used only once as basis for issuing a validation under this Part.
  - (4) The original validation document or paper, bearing all the the privileges granted and its limitations, shall be carried with the original license while performing duties.

## 61.77 Special Purpose Pilot License: Operation Of Indonesia-Registered Civil Airplanes Leased By A Person Not An Indonesia Citizen

(a) General. The holder of a current foreign pilot license or license issued by a foreign

contracting State to the Convention on International Civil Aviation, who meets the requirements of this Part, may hold a special purpose pilot license authorizing the holder to perform pilot duties on a civil airplane of Indonesia registry, leased to a person not a citizen of the Republic of Indonesia, carrying persons or property for compensation or hire. Special purpose pilot licenses are issued under this Part only for airplane types that can have a maximum passenger seating configuration (not including any flight crewmember seat) of more than 30 seats or

a maximum payload capacity (as defined in Part 135.2(e) of the CASRs) of more than 7,500 pounds.

- (b) Eligibility. To be eligible for the issuance or renewal of a license under this Part, an applicant or a representative or the applicant must present the following to the Director General:
  - (1) A current foreign pilot license, issued by the aeronautical authority of a foreign contracting State to the Convention on International Civil Aviation, or a facsimile acceptable to the Director General. The license must authorize the applicant to perform the pilot duties to be authorized by a license issued under this Part on the same airplane type as the leased airplane.
  - (2) A current certification by the lessee of the airplane;
    - (i) Stating that the applicant is employed by the lessee;
    - (ii) Specifying the airplane type on which the applicant will perform pilot duties; and
    - (iii) Stating that the applicant has received ground and flight instruction which qualifies the applicant to perform the duties to be assigned on the airplane.
  - (3) Documentation showing that the applicant has not reached the age of 60 and that the applicant currently meets the medical standards for the foreign pilot license required by Paragraph (b)(1) of this Part, except that a Republic of Indonesia medical certificate issued under part 67 of the CASRs is not evidence that the applicant meets those standards unless the State which issued the applicant's foreign pilot license accepts a Republic of Indonesia medical certificate as evidence of medical fitness for a pilot license.
- (c) Privileges. The holder of a special purpose pilot license issued under this Part may exercise the same privileges as those shown on the license specified in Paragraph (b)(1) of this Part, subject to the limitation specified in this Part. The license holder is not subject to the requirements of Part 61.55, 61.57, and 61.58 of this part.
- (d) Limitations. Each license issued under this Part is subject to the following limitations:
  - (1) It is valid only:
    - (i) For flight between foreign countries or for flights in foreign air commerce;
    - (ii) While it and the foreign pilot license required by Paragraph (b)(1) of this Part are in the license holder's personal possession and are current;
    - (iii) While the license holder is employed by the person to whom the airplane described in the certification required by Paragraph (b)(2) of this Part is leased;
    - (iv) While the license holder is performing pilot duties on the Indonesianregistered civil airplanes described in the certification required by

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- Paragraph (b)(2) of this Part;
- (v) While the medical documentation required by Paragraph (b)(3) of this Part is in the license holder's personal possession and is currently valid; and
- (vi) While the license holder is under 60 years of age.
- (2) Each license issued under this Part contains the following:
  - The name of the person to whom the Indonesia-registered civil aircraft is leased.
  - (ii) The type of aircraft.
  - (iii) The limitation: "Issued under, and subject to, Part 61.77 of the Civil Aviation Safety Regulations."
  - (iv) The limitation:" Subject to the privileges and limitations shown on the holder's foreign pilot license or license."
- (3) Any additional limitations placed on the license which the Director considers necessary.
- (e) Termination. Each special purpose pilot license issued under this Part terminates
  - (1) When the lease agreement for the airplane described in the certification required by Paragraph (b)(2) of this Part terminates;
  - (2) When the foreign pilot license, or the medical documentation, required by Paragraph (b) of this Part is suspended, revoked, or no longer valid;
  - (3) When the license holder reaches the age of 60; or
  - (4) After 24 calendar months after the month in which the special purpose pilot license was issued.
- (f) Surrender of license. The license holder shall surrender the special purpose pilot license to the Director General within 7 days after the date it terminates.
- (g) Renewal. The license holder may have the license renewed by complying with the requirements of Paragraph (b) of this Part at the time of application for renewal.

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#### SUBPART C - STUDENT AND SPORT PILOTS

## 61.81 Applicability: Student Pilots

This subpart prescribes the requirements for the issuance of student pilot and sport pilot licenses and ratings, the conditions under which those licenses and ratings are necessary, and the general operating rules and limitations for the holders of those licenses and ratings.

# 61.83 Eligibility Requirements : Students Pilots

To be eligible for a student pilot license, a person must:

- (a) Be at least 16 years of age, or at least 14 years of age for a student pilot license limited to the operation of a glider or free balloon;
- (b) Be able to read, speak, and understand the English language, or have such operating limitations placed on his pilot license as are necessary for the safe operation of aircraft, to be removed when he shows that he can read, speak and understand the English language; and
- (c) Hold at least a current second-class medical certificate issued under Part 67 of the CASRs or, in the case of glider or free balloons operations, certify that he has no known medical defect that makes him unable to pilot a glider or a free balloon.

# 61.85 Application: Student Pilots

An application for a student pilot license is to be made on a form and in a manner prescribed by the Director and is submitted to -

- (a) An aviation medical examiner when applying for a DGCA medical certificate in the Republic of Indonesia; or
- (b) A DGCA inspector or designated examiner, accompanied by a current DGCA medical certificate, or in the case of an application for a glider or free balloon pilot license, it may be accompanied by a certification by the applicant that he has no known medical defect that makes him unable to pilot a glider or free balloon.

# 61.87 Solo Flight Requirements For Student Pilots

- (a) General. A student pilot may not operate an aircraft in solo flight unless that student meets the requirements of this Part. The term "solo flight", as used in this subpart, means that flight time during which a student pilot is the sole occupant of the aircraft, or that flight time during which the student acts as pilot in command of an airship requiring more than one flight crewmember.
  - (b) Aeronautical knowledge. A student pilot must have demonstrated satisfactory knowledge to an authorized instructor, of the appropriate portions of parts 61 and 91 of the Civil Aviation Safety Regulations that are applicable to

student pilots. This demonstration must include the satisfactory completion of a written examination to be administered and graded by the instructor who endorses the student's pilot license for solo flight. The written examination must include questions on the applicable regulations and the flight characteristics and operational limitations for the make and model aircraft to be flown.

- (c) Pre-solo flight training. Prior to being authorized to conduct a solo flight, a student pilot must have received and logged instruction in at least the applicable maneuvers and procedures listed in paragraphs (d) through (j) of this Part for the make and model of aircraft to be flown in solo flight, and must have demonstrated proficiency to an acceptable performance level as judged by the instructor who endorses the student's pilot license.
- (d) For all aircraft (as appropriate to the aircraft to be flown in solo flight), the student pilot must have received pre-solo flight training in -
  - (1) Flight preparation procedures, including preflight inspections, powerplant operation, and aircraft systems;
  - (2) Taxing or surface operations, including runups;
  - (3) Takeoffs and landings, including normal and crosswind;
  - (4) Straight and level flight, shallow, medium, and steep banked turns in both directions;
  - (5) Climbs and climbing turns;
  - (6) Airport traffic patterns including entry and departure procedures, and collision and wake turbulence avoidance;
  - (7) Descents with and without turns using high and low drag configurations;
  - (8) Flight at various airspeeds from cruising to minimum controllable airspeed;
  - (9) Emergency procedures and equipment malfunctions; and
  - (10) Ground reference maneuvers.
- (e) For airplanes, in addition to the maneuvers and procedures in Paragraph (d) of this Part, the student pilot must have received pre-solo flight training in -
  - (1) Approaches to the landing area with engine power at idle and with partial power;
  - (2) Slips to a landing;
  - (3) Go-arounds from final approach and from the landing flare in various flight configurations including turns;
  - (4) Forced landing procedures initiated on takeoff, during initial climb, cruise, descent, and in the landing pattern; and
  - (5) Stall entries from various flight attitudes and power combinations with recovery initiated at the first indication of a stall, and recovery from a full stall.
- (f) For rotorcraft (other than single place gyroplanes), in addition to the maneuvers and procedures in Paragraph (d) of this Part, the student pilot must have received pre-solo flight training in-
  - (1) Approaches to the landing area;

(2) Hovering turns and air taxiing (for helicopter only) and ground maneuvers;

- (3) Go-arounds from landing hover and from final approach;
- (4) Simulated emergency procedures, including autorotational descent with a power recovery or running landing in gyroplanes, a power recovery to a hover in a single engine helicopter, or approaches to a hover or a landing with one engine inoperative in multiengine helicopter; and
- (5) Rapid decelerations (helicopter only).
- (g) For single place gyroplanes, in addition to the appropriate maneuvers and procedures in Paragraph (d) of this Part, the student pilot must have received presolo flight training in:
  - (1) Simulated emergency procedures, including autorotational descents with a power recovery or a running landing;
  - (2) At least three successful flight in gyroplanes under the observation of a qualified instructor; and
  - (3) For non-powered single place gyroplanes only, at least three successful flight in a gyroplane towed from the ground under the observation of the flight instructor who endorses the student's pilot license.
  - (h) For gliders, in addition to the appropriate maneuvers and procedures in Paragraph (d) of this Part, the student pilot must have received pre-solo flight training in:
    - (1) Preflight inspection of towline rigging, review of signals, and release procedures to be used;
    - (2) Aerotows, ground tows, or self-launch;
    - (3) Principles of glider disassembly and assembly;
    - (4) Stall entries from various flight attitudes with recovery initiated at the first indication of a stall, and recovery from a full stall;
    - (5) Straight glides, turns, and spirals;
    - (6) Slips to a landing;
    - (7) Procedures and techniques for thermalling in convergence lift or ridge lift as appropriate to the training area; and
    - (8) Emergency operations including towline break procedures.
  - (i) In airships, in addition to the appropriate maneuvers and procedures in Paragraph (d) of this Part, the student pilot must have received pre-solo flight training in:
    - (1) Rigging, ballasting, controlling pressure in the ballonets, and superheating;
    - (2) Landings with positive and with negative static balance.
- (j) In free balloons, in addition to the appropriate maneuvers and procedures in Paragraph (d) of this Part, the student pilot must have received pre-solo flight training in:
  - (1) Operation of hot air or gas source, ballast, valves, and rip panels, as appropriate;
  - (2) Emergency use of rip panel (may be simulated);

- (3) The effects of wind on climb and approach angles; and
- (4) Obstruction detection and avoidance techniques.
- (k) The instruction required by this Part must be given by an authorized flight instructor who is licensed:
  - (1) In the category and class of airplanes, for airplanes;
  - (2) Except as provided in paragraph (k)(3) of this Part, in helicopters or gyroplanes, as appropriate, for rotorcraft;
  - (3) In airplanes or gyroplanes, for single place gyroplanes; and
  - (4) In gliders for gliders.
- (I) The holder of a commercial pilot license with a lighter-than-air category rating may give the instruction required by this Part in :
  - (1) Airships, if that commercial pilot holds an airship class rating; and
  - (2) Free balloons, if that commercial pilot holds a free balloon class rating.
- (m) Flight instructor endorsements. No student pilot may operate an aircraft in solo flight unless that student's pilot license and logbook have been endorsed for the specific make and model aircraft to be flown by an authorized flight instructor licensed under this part, and the student's logbook has been endorsed, within the 90 days prior to the student operating in solo flight, by an authorized flight instructor licensed under this part who has flown with the student. No flight instructor may authorize solo flight without endorsing the student's logbook. The instructor's endorsement must certify that the instructor:
  - (1) Has given the student instruction in the make and model aircraft in which the solo flight is to be made;
  - (2) Finds that the student has met the flight training requirements of this Part; and
  - (3) Finds that the student is competent to make a safe solo flight in that aircraft.
- (n) Notwithstanding the requirements of Paragraphs (a) through (m) of this Part, each student pilot, whose student pilot license and logbook are endorsed for solo flight by an authorized flight instructor on or before the effective date of this part of the CASRs may operate in solo flight until the 90th day after the date on which the logbook was endorsed for solo flight.

#### 61.89 General Limitations: Student Pilots

- (a) A student pilot may not act as pilot in command of an aircraft -
  - That is carrying a passenger;
  - (2) That is carrying property for compensation or hire;
  - (3) For compensation or hire;
  - (4) In furtherance of business;
  - (5) On an international flight;
  - (6) With a flight or surface visibility of less than 3 statute miles during daylight

- hours or 5 statute miles at night;
- (7) When the flight cannot be made with visual reference to the surface; or
- (8) In a manner contrary to any limitations placed in the pilot's logbook by the instructor.

(b) A student pilot may not act as required pilot flight crewmember on any aircraft for which more than one pilot is required by the type certificate of the aircraft or regulations under which the flight is conducted, except when receiving flight instruction from an authorized flight instructor on board an airship and no person other than a required flight crewmember is carried on the aircraft.

#### 61.91 Aircraft Limitations For Student Pilots: Pilot In Command

A student pilot may not serve as pilot in command of any airship requiring more than one flight crewmember unless he has met the pertinent requirements prescribed in Part 61.87.

# 61.93 Cross-Country Flight Requirements (For Student And Sport Pilots Seeking Private Pilot Certification)

- (a) General. No student pilot may operate an aircraft in solo cross-country flight, nor may that student, except in an emergency, make a solo flight landing at any point other than the airport of take-off, unless the student has met the requirements of this Part. The term cross-country flight, as used in this Part, means a flight beyond a radius of 25 nautical miles from the point of departure.
- (b) Notwithstanding Paragraph (a) of this Part, an authorized flight instructor, licensed under this part, may permit the student to practice solo takeoffs and landings at another airport within 25 nautical miles from the airport at which the student receives instruction if the flight instructor:
  - (1) Determines that the student pilot is competent and proficient to make those landings and takeoffs;
  - (2) Has flown with that student prior to authorizing those takeoff and landings;
  - (3) Endorses the student pilot's logbook with an authorization to make those landings and takeoffs.
- (c) Flight training. A student pilot, in addition to the pre-solo flight training maneuvers and procedures required by Part 61.87(c), must have received and logged instruction from an authorized flight instructor in the appropriate pilot maneuvers and procedures of this Part. Additionally, a student pilot must have demonstrated an acceptable standard of performance, as judged by the authorized flight instructor licensed under this part, who endoses the student's pilot license in the appropriate pilot maneuvers and procedures of this Part.
  - (1) For all aircraft:
    - (i) The use of aeronautical charts for VFR navigation using pilotage and dead reckoning with the aid of a magnetic compass;
    - (ii) Aircraft cross-country performance, and procurement and analysis of aeronautical weather reports and forecasts, including recognition of

critical weather situations and estimating visibility while in flight;

- (ii) Cross-country emergency conditions including lost procedures, adverse weather conditions, and simulated precautionary off airport approaches and landing procedures;
- (iv) Traffic pattern procedures, including normal area arrival and departure, collision avoidance, and wake turbulence precautions;
- (v) Recognition of operational problems associated with the different terrain features in the geographical area in which the cross-country flight is to be flown; and
- (vi) Proper operation of the instruments and equipment installed in the aircraft to be flown.
- (2) For airplanes, in addition to Paragraph (c) (1) of this Part:
  - Short and soft field takeoff, approach, and landing procedures, including crosswind takeoffs and landings;
  - (ii) Takeoffs at best angle and rate of climb;
  - (iii) Control maneuvering solely by reference to flight instruments including straight and level flight, turns, descents, climbs, and the use of radio aids and radar directives;
  - (iv) The use of radios for VFR navigation and for two-way communication; and
  - (v) For those student pilots seeking night flying privileges, night flying procedures including takeoffs, landings, go-arounds, and VFR navigation.
- (3) For rotorcraft, in addition to Paragraph (c) (1) of this Part and as appropriate to the aircraft being flown
  - (i) High altitude takeoff and landing procedures;
  - (ii) Steep and shallow approaches to a landing hover;
  - (iii) Rapid decelerations (helicopters only); and
  - (iv) The use of radios for VFR navigation and two-way communication.
- (4) For gliders, in addition to the appropriate maneuvers and procedures in Paragraph (c) (1) of this Part:
  - (i) Landings accomplished without the use of the altimeter from at least 2,000 feet above the surface
  - (ii) Recognition of weather conditions and conditions favorable for crosscountry soaring; and
  - (iii) The use of radios for two-way radio communications.
- (5) For airships, in addition to appropriate maneuvers and procedures in Paragraph (c) (1) of this Part -
  - (i) Control of gas pressure with regard to superheating and altitude; and
  - (ii) Control of the airship solely by reference to flight instruments.
- (6) For free ballons, the appropriate maneuvers and procedures in Paragraph (c) (1) of this Part.
- (d) No student pilot may operate an aircraft in solo cross-country flight, unless:
- (1) The instructor is an authorized instructor licensed under this part and the student's license has been endorsed by the instructor attesting that the student has received the instruction and demonstrated an acceptable level of competency and proficiency in the maneuvers and procedures of this Part for the category of aircraft to be flown; and

- (2) The instructor has endorsed the student's logbook:
  - (i) For each solo cross-country flight, after reviewing the student's preflight planning and preparation, attesting that the student is prepared to make the flight safely under the known circumstances and subject to any conditions listed in the logbook by the instructor; and

(ii) For repeated specific solo cross-country flights that are not greater than 50 nautical miles from the point of departure, after giving that student flight instruction in both directions over the route, including takeoffs and landings at the airports to be used, and has specified the conditions for which the flights can be made.

# 61.95 Operations In Class B Airspace And At Airports Located Within Class B Airspace: Student Pilots

- (a) A student pilot may not operate an aircraft on a solo flight in Class B airspace unless:
  - (1) The pilot has received both ground and flight instruction from an authorized instructor on that Class B airspace area and the flight instruction was received in the specific Class B airspace area for which solo flight is authorized;
  - (2) The logbook of that pilot has been endorsed within the preceding 90 days for conducting solo flight in that Class B airspace area by the instructor who gave the flight training; and
  - (3) The logbook endorsement specifies that the pilot has received the required ground and flight instruction and has been found competent to conduct solo flight in that specific Class B airspace area.
- (b) Pursuant to Part 91.131 (b), a student pilot may not operate an aircraft on a solo flight to, from, or at an airport located within Class B airspace unless:
  - (1) That student pilot has received both ground and flight instruction from an authorized instructor to operate at that airport and the flight and ground instruction has been received at the specific airport for which the solo flight is authorized;
  - (2) The logbook of that student pilot has been endorsed within the preceding 90 days for conducting solo flight at that specific airport by the instructor who gave the flight training; and
  - (3) The logbook endorsement specifies that the student pilot has received the required ground and flight instruction and has been found competent to conduct solo flight operations at that specific airport.

#### 61.96 Eligibility Requirements: Sport Pilots

To be eligible for a sport pilot license, a person must:

- (a) Be at least 17 years of age;
- (b) Be able to read, speak, and understand the English language, or have such operating limitations placed on the pilot license as are necessary for the safe operation of aircraft, to be removed when the sport pilot shows the ability to read,

- speak, and understand the English language;
- (c) Hold at least a current third-class medical certificate issued under part 67 of the CASRs;
- (d) Pass a written test on the subject areas on which instruction is required by Part 61.97;
- (e) Pass an oral and flight test on maneuvers and procedures selected by a DGCA inspector or designated examiner to determine the applicant's competency in the appropriate flight operations listed in Part 61.98; and
- (f) Comply with the sections of this part that apply to the rating sought.

## 61.97 Aeronautical Knowledge: Sport Pilots

An applicant for a sport pilot license must have logged ground instruction from an authorized instructor, or must present evidence showing satisfactory completion of a course of instruction in at least the following areas of aeronautical knowledge appropriate to the category and class of aircraft for which a rating is sought:

- (a) The Civil Aviation Safety Regulations applicable to sport pilot privileges, limitations, and flight operations and the accident reporting requirements of the CASRs.
- (b) The use of aeronautical charts for VFR navigation using piloting with the aid of a magnetic compass;
- (c) The recognition of critical weather situations from the ground and in flight and the procurement and use of aeronautical weather reports and forecasts;
- (d) The safe and efficient operation of aircraft including collision and wake turbulence avoidance;
- (e) The effects of density altitude on takeoff and climb performance;
- (f) Weight and balance computations;
- (g) Principles of aerodynamics, powerplants, and aircraft systems; and
- (h) Stall awareness, spin entry, spins, and spin recovery techniques.

## 61.98 Flight Proficiency: Sport Pilot

The applicant for a sport pilot license must have logged instruction from an authorized flight instructor in at least the pilot operations listed in this Part. In addition, the applicant's logbook must contain an endorsement by an authorized flight instructor who has found the applicant competent to perform each of those operations safely as a sport pilot.

- (a) In airplanes.
  - (1) Preflight operations, including weight and balance determination, line inspection, airplane servicing, powerplant operations, and aircraft systems;

(2) Airport and traffic pattern operations, collision and wake turbulence avoidance:

- (3) Flight maneuvering by reference to ground objects;
- (4) Pilotage with the aid of magnetic compass;
- (5) Flight at slow airspeeds with realistic distractions and the recognition of and recovery from stalls entered from straight flight and from turns;
- (6) Emergency operations, including simulated aircraft and equipment malfunctions;
- (7) Maximum performance takeoffs and landings; and
- (8) Normal and crosswind takeoffs and landings.

## (b) In helicopters.

- (1) Preflight operations including weight and balance determination, line inspection, helicopter servicing, powerplant operations, and aircraft systems;
- (2) Airport and traffic pattern operations, collision and wake turbulence avoidance;
- (3) Hovering, air taxiing, and maneuvering by reference to ground objects;
- (4) Pilotage with the aid of magnetic compass;
- (5) High altitude takeoffs and roll on landings, and rapid decelerations; and
- (6) Emergency operations, including autorotative descents.

## (c) In gyroplanes.

- (1) Preflight operations, including weight and balance determination, line inspection, helicopter servicing, powerplant operations, and aircraft systems;
- (2) Airport and traffic pattern operations, collision and wake turbulence avoidance;
- (3) Flight maneuvering by reference to ground objects;
- (4) Pilotage with the aid of a magnetic compass;
- (5) Maneuvering at critically slow air speeds, and the recognition of any recovery from high rates of descent at low airspeeds; and
- (6) Emergency procedures, including maximum performance takeoffs and landings.

# 61.99 Airplane Rating: Aeronautical Experience for Sport Pilots

- (a) An applicant for a sport pilot license with an airplane rating must have had at least a total of 30 hours of flight instruction and solo flight time which must include the following:
  - (1) Fifteen hours of flight instruction from an authorized flight instructor, including at least:
    - (i) Except as provided for in Paragraph (b), 2 hours outside of the vicinity of the airport at which instruction is given, including at least three landings at another airport that is located more than 25 nautical miles

from the airport of departure; and

- (ii) Two hours in airplanes in preparation for the sport pilot flight test within the 60 day period before the test.
- (2) Fifteen hours of solo flight time in airplanes.
- (b) Pilots based on small islands.
  - (1) An applicant who is located on an island from which the flight required in Part 61.99 (a)(1)(i) cannot be accomplished without flying over water more than 10 nautical miles from the nearest shoreline need not comply with Part 61.99 (a)(1)(i). However, if other airports that permit civil operations are available to which a flight may be made without flying over water more than 10 nautical miles from the nearest shoreline, the applicant must show completion of a single cross-country flight with two return trips between those two airports which must include three landings at the other airport.
  - (2) The pilot license issued to a person under Paragraph (b) (1) of this Part contains an endorsement with the following limitation which may subsequently be amended to include another island if the applicant complies with Paragraph (b) (1) of this Part with respect to that island: "Passenger carrying prohibited in flights more than 10 nautical miles from (appropriate island)".
  - (3) The holder of a sport pilot license with an endorsement described in Paragraph (b) (2) of this Part is entitled to removal of the endorsement if the holder presents satisfactory evidence of compliance with the applicable flight requirements of Part 61.93(c) to a DGCA inspector or designated examiner.

## 61.100 Rotorcraft Rating: Aeronautical Experience For Sport Pilots

An applicant for a sport pilot license with a rotorcraft category rating must have a least the following aeronautical experience:

- (a) For a helicopter rating, an applicant must have a minimum of 30 hours of flight instruction and solo flight time in aircraft, which must include the following:
  - (1) Fifteen hours of flight instruction from an authorized flight instructor including at least-
    - (i) Two hours of flight instruction in helicopters from an authorized flight instructor outside the vicinity of the airport at which instruction is given, including at least three landings at another airport that is located more than 25 nautical miles from the airport of departure; and
    - (ii) Two hours of flight instruction in preparation for the flight test within the 60 day period preceding the test.
  - (2) Fifteen hours of solo time in helicopters including:
    - A takeoff and landing at an airport that serves both airplanes and helicopters; and
    - (ii) A flight with a landing at a point other than an airport.
- (b) For a gyroplane rating, an applicant must have a minimum of 30 hours of flight instruction and solo flight time in aircraft, which must include the following:
  - (1) Fifteen hours of flight instruction in gyroplanes from an authorized flight instructor including at least-

(i) Two hours of flight instruction in gyroplanes from an authorized flight instructor outside the vicinity of the airport at which instruction is given, including at least three landings at another airport that is located more than 25 nautical miles from the airport of departure; and

- (ii) Two hours of flight instruction in preparation for the flight test within the 60 day period preceding the test.
- (2) Ten hours of solo flight time in a gyroplane, including flights with takeoffs and landings at paved and unpaved airports.

# 61.101 Sporting Pilot Privileges and Limitations

- (a) A sporting pilot may:
  - (1) Carry not more than one passenger; and
  - (2) Share the operating expenses of the flight with passenger.
  - (3) Act as pilot in command of an aircraft only when -
    - The flight is within 50 nautical miles of an airport at which the pilot has received ground and flight instruction from an authorized instructor licensed under this part;
    - (ii) The fligh lands at an airport within 50 nautical miles of the departure airport; and
    - (iii) The pilots carries, in that pilot's personal possession, a logbook that has been endorsed by the instructor attesting to the instruction required by Paragraph (a)(3)(i) of this Part.
- (b) Except as provided in Paragraphs (f) and (g) of this Part, a sport pilot may not act as pilot in command of an aircraft -
  - (1) that is certificated:
    - (i) For more than four occupants:
    - (ii) With more than one powerplant;
    - (iii) With a powerplant of more than 180 horsepower; or
    - (iv) With retractable landing gear.
  - (2) That is classified as a glider, airship, or ballon;
  - (3) That is carrying a passenger or property for compensation or hire;
  - (4) For compesation or hire
  - (5) In furtherance of a business;
  - (6) Between sunset and sunrise;
  - (7) In airspace in which communication with air traffic control is required;
  - (8) At an altitude of more than 10,000 feet MSL or 2,000 feet AGL, whichever is higher;
  - (9) When the flight or surface visibility is less than 3 statute miles:
  - (10) Without visual reference to the surface;
  - (11) On a flight outside the Republic of Indonesia;
  - (12) To demonstrate that aircraft in flight to a prospective buyer;
  - (13) That is used in a passenger carrying airlift and sponsored by a charitable organization; and

- (14) That is towing any object.
- (c) A sport pilot may not act as required pilot flight crewmember on any aircraft for which more than one pilot is required by the type certificate of the aircraft or the regulations under which the flight is conducted, except when receiving flight instruction from an authorized flight instructor on board an airship and no person other than a required flight crewmember is carried on the aircraft.
- (d) A sport pilot who has logged fewer than 400 flight hours and who has not logged pilot in command time in an aircraft within the preceding 180 days may not act as pilot in command of an aircraft until the pilot has received flight instruction from an authorized flight instructor who certifies in the pilot's logbook that the pilot is competent to act as pilot in command of the aircraft. This requirement can be met in combination with the requirements of Part 61.56 and 61.57 at the discretion of the instructor.
- (e) The sport pilot license issued under this subpart carries the notation "Holder does not meet ICAO requirements."
- (f) For the purpose of obtaining additional licenses or ratings, while under the supervision of an authorized flight instructor, a sport pilot may fly as sole occupant of an aircraft -
  - For which the pilot does not hold an appropriate category or class rating;
  - (2) Within airspace that requires communication with air traffic control; or
  - (3) Between sunset and sunrise, provided the flight or surface visibility is at least 5 statute miles.
- (g) In order to fly solo as provided in Paragraph (f) of this Part, the sport pilot must meet the appropriate aeronautical knowledge and flight training requirements of Part 61.87 for that aircraft. When operating an aircraft under the conditions specified in Paragraph (f) of this Part, the sport pilot shall carry the logbook that has been endorsed for each flight by an authorized pilot instructor who:
  - (1) Has given the sport pilot instruction in the make and model of aircraft in which the solo flight is to be made;
  - (2) Has found that the sport pilot has met the applicable requirements of Part 61.87 and
  - (3) Has found that the sport pilot is competent to make solo flights in accordance with the logbook endorsement.
- (h) Notwithstanding Part 61.101 9a)(3), a sport pilot may, for the purpose of obtaining an additional license or rating, while under the supervision of an authorized flight instructor, act as pilot in command of an aircraft on a flight in excess of 50 nautical miles from an airport at which flight instruction is received if the pilot meets the flight training requirements of Part 61.93 and in that pilot's personal possession is the logbook that has been endorsed by an authorized instructor attesting that:
  - (1) The sport pilot has received instruction in solo cross-country flight and the training described in Part 61.93 applicable to the aircraft to be operated, and

is competent to make solo cross-country flights in the make and model of aircraft to be flown; and

(2) The instructor has reviewed the student's preflight planning and preparation for the specific solo cross-country flight and that the sport pilot is prepared to make the flight safely under the known circumstances and subject to any conditions listed in the logbook by the instructor.

#### SUBPART D - PRIVATE PILOTS

#### 61.102 Applicability

This subpart prescribes the requirements for the issuance of private pilot licenses and ratings, the conditions under which those licenses and ratings are necessary, and the general operating rules for the holders of those licenses and ratings.

## 61.103 Eligibility Requirements: General.

To be eligibility for a private pilot license, a person must:

- (a) Be at least 17 years of age, except that a private pilot license with a free balloon or a glider rating only may be issued to a qualified applicant who is at least 16 years of age;
- (b) Be able to read, speak, and understand the English language, or have such operating limitation placed on his pilot license as are necessary for the safe operation of aircraft, to be removed when he shows that he can read, speak, and understand the English language;
- (c) Hold at least a current second-class medical certificate issued under part 67 of the CASRs, or, in the case of a glider or free balloon rating, certify that he has no known medical defect that makes him unable to pilot a glider or free balloon, as appropriate;
- (d) Pass a written test on the subject areas on which instruction is required by Part 61.105;
- (e) Pass an oral and flight test on procedures and maneuvers selected by a DGCA inspector or designated examiner to determine the applicant's competency in the flight operations on which instruction is required by the flight proficiency provision of Part 61.107; and
- (f) Comply with the sections of this part that apply to the rating he seeks.

## 61.105 Aeronautical Knowledge

(a) Airplanes, Airship, and Helicopter.

Air law

 Rules and regulations relevant to the holder of a private pilot license; rules of the air; altimeter setting procedures; appropriate air traffic services practices and procedures;

Aircraft general knowledge for aeroplanes, airships, and helicopters

- (2) Principles of operation and functioning of engines, systems and instruments;
- (3) Operating limitations of the relevant category of aircraft and engines; relevant operational information from the flight manual or other appropriate document;

(4) For helicopters and powered-lifts, transmission (power trains) where applicable;

(5) For airships, physical properties and practical application of gases;

Flight performance, planning and loading

- (6) Effects of loading and mass distribution on flight characteristics; mass and balance calculations;
- (7) Use and practical application of take-off, landing and other performance data;
- (8) Pre-flight and en-route flight planning appropriate to private operations under VFR; preparation and filling of air traffic services flight plans; appropriate air traffic services procedures; position reporting procedures; altimeter setting procedures; operations in areas of high-density traffic;

## Human performance

(9) Human performance including principles of threat and error management;

## Meteorology

(10) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry; hazardous weather conditions;

#### Navigation

(11) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

## Operational procedures

- (12) application of threat and error management to operational performance;
- (13) altimeter setting procedures:
- (14) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations:
- (15) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards:
- (16) in the case of helicopters, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

#### Principles of flight

(17) principles of flight;

## Radiotelephony

(18) Communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

## (b) Gliders

#### Air law

(1) rules and regulations relevant to the holder of a glider pilot licence; rules of the air; appropriate air traffic services practices and procedures;

#### Aircraft general knowledge

- (2) principles of operation of glider systems and instruments;
- (3) operating limitations of gliders; relevant operational information from the flight manual or other appropriate document;

Flight performance, planning and loading

- (4) effects of loading and mass distribution on flight characteristics; mass and balance considerations;
- (5) use and practical application of launching, landing and other performance data;
- (6) pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic:

## Human performance

- (7) human performance relevant to the glider pilot including principles of threat and error management;
- (8) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;

## Navigation

(9) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

## Operational procedures

- (10) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- (11) different launch methods and associated procedures;
- (12) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards;

#### Principles of flight

- (13) Principles of flight relating to gliders.
- (c) Free balloons.

#### Air law

1) rules and regulations relevant to the holder of a free balloon pilot licence; rules of the air; appropriate air traffic services practices and procedures;

#### Aircraft general knowledge

- 2) principles of operation of free balloon systems and instruments;
- 3) operating limitations of free balloons; relevant operational information from the flight manual or other appropriate document;
- 4) physical properties and practical application of gases used in free balloons;

## Flight performance, planning and loading

- 5) effects of loading on flight characteristics; mass calculations;
- use and practical application of launching, landing and other performance data, including the effect of temperature;

7) pre-flight and en-route flight planning appropriate to operations under VFR; appropriate air traffic services procedures; altimeter setting procedures; operations in areas of high-density traffic;

## Human performance

- 8) human performance relevant to the free balloon pilot including principles of threat and error management;
- 9) application of elementary aeronautical meteorology; use of, and procedures for obtaining, meteorological information; altimetry;

#### Navigation

10) practical aspects of air navigation and dead-reckoning techniques; use of aeronautical charts;

## Operational procedures

- 11) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- 12) appropriate precautionary and emergency procedures, including action to be taken to avoid hazardous weather, wake turbulence and other operating hazards:

## Principles of flight

13) principles of flight relating to free balloons.

# 61.107 Skill and Flight Instruction

## Skill

The applicant shall have demonstrated the ability to perform as pilot-in-command of an aircraft within the appropriate category of aircraft, the procedures and maneuvers described under this section with a degree of competency appropriate to the privileges granted to the holder of a private pilot license, and to:

- (a) recognize and manage threats and errors;
- (b) operate the aircraft within its limitations;
- (c) complete all maneuvers with smoothness and accuracy;
- (d) exercise good judgment and airmanship;
- (e) apply aeronautical knowledge; and

#### Flight Instruction

- (a) Airplane
  - (1) recognize and manage threats and errors;
  - (2) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
  - (3) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
  - (4) control of the aeroplane by external visual reference;

(5) flight at critically slow airspeeds; recognition of, and recovery from, incipient and full stalls;

- (6) flight at critically high airspeeds; recognition of, and recovery from, spiral dives;
- (7) normal and crosswind take-offs and landings;
- (8) maximum performance (short field and obstacle clearance) take-offs; short-field landings;
- (9) flight by reference solely to instruments, including the completion of a level 180° turn:
- (10) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids;
- (11) emergency operations, including simulated aeroplane equipment malfunctions;
- (12) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- (13) communication procedures and phraseology.

## (b) Helicopter

The instructor shall ensure that the applicant has operational experience in at least the following areas to the level of performance required for the private pilot:

- (1) recognize and manage threats and errors;
- (2) pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
- (3) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- (4) control of the helicopter by external visual reference;
- (5) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- (6) ground manoeuvring and run-ups; hovering; take-offs and landings normal, out of wind and sloping ground;
- (7) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- (8) cross-country flying using visual reference, dead reckoning and, where available, radio navigation aids, including a flight of at least one hour;
- (9) emergency operations, including simulated helicopter equipment malfunctions; autorotative approach;
- (10) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- (11) communication procedures and phraseology.

#### (c) Gyroplanes.

- (1) Preflight operations, including the line inspection and servicing of gyroplanes;
- (2) Flight maneuvering by ground references;
- (3) Maneuvering at critically slow airspeeds, and the recognition of and recovery from high rates of descent at low airspeeds;

(4) Airport and traffic pattern operations, including collision avoidance precautions and radio communication procedures;

- (5) Cross-country flying by pilotage, dead reckoning, and the use of radio aids; and
- (6) Emergency procedures, including maximum performance takeoffs and landings.

## (d) Glider.

- (1) pre-flight operations, including glider assembly and inspection;
- (2) techniques and procedures for the launching method used, including appropriate airspeed limitations, emergency procedures and signals used;
- (3) traffic pattern operations, collision avoidance precautions and procedures;
- (4) control of the glider by external visual reference;
- (5) flight throughout the flight envelope;
- (6) recognition of, and recovery from, incipient and full stalls and spiral dives;
- (7) normal and crosswind launches, approaches and landings;
- (8) cross-country flying using visual reference and dead reckoning;
- (9) Emergency procedures.

## (e) Airship.

- recognize and manage threats and errors;
- (2) pre-flight operations, including mass and balance determination, airship inspection and servicing;
- (3) ground reference manoeuvres:
- (4) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- (5) techniques and procedures for the take-off, including appropriate limitations, emergency procedures and signals used;
- (6) control of the airship by external visual reference;
- (7) take-offs, landings and go-arounds;
- (8) maximum performance (obstacle clearance) take-offs;
- (9) flight by reference solely to instruments, including the completion of a level 180° turn;
- (10) navigation, cross-country flying using visual reference, dead reckoning and radio navigation aids;
- (11) emergency operations (recognition of leaks), including simulated airship equipment malfunctions; and
- (12) Communication procedures and phraseology.
- (f) Free balloon.
  - pre-flight operations, including balloon assembly, rigging, inflation, mooring and inspection;

(2) techniques and procedures for the launching and ascent, including appropriate limitations, emergency procedures and signals used;

- (3) collision avoidance precautions;
- (4) control of the free balloon by external visual reference;
- (5) recognition of, and recovery from, rapid descents;
- (6) cross-country flying using visual reference and dead reckoning;
- (7) approaches and landings, including ground handling;
- (8) Emergency procedures.

## 61.109 Airplane Rating; Aeronautical Experience

An applicant for a private pilot license with an airplane rating must have had at least a total of 40 hours of flight instruction and solo flight time which must include the following:

- (a) Twenty hours of flight instruction from an authorized flight instructor, including at least:
  - (1) Three hours of cross-country;
  - (2) Three hours at night, including 10 takeoffs and landings for applicants seeking night flying privileges; and
  - (3) Three hours in airplanes in preparation for the private pilot flight test within 60 days prior to that test.

An applicant who does not meet the night flying requirement in Paragraph (a)(2) of this Part is issued a private pilot license bearing the limitation "Night flying prohibited."

This limitation may be removed if the holder of the license shows that he has met the requirements of Paragraph (a)(2) of this Part.

- (b) Twenty hours of solo flight time, including at least:
  - (1) Ten hours in airplanes.
  - (2) Ten hours of cross-country flight, each flight with a landing at a point more than 50 nautical miles from the original departure point. One flight must be of at least 300 nautical miles with landings at a minimum of three points, one of which is at least 100 nautical miles from the original departure point.
  - (3) Three solo takeoffs and landings to a full stop at an airport with an operating control tower.

#### 61.111 Cross - Country Flights: Pilot Based On Small Islands

(a) An applicant who shows that he is located on an island from which the required flights cannot be accomplished without flying over water more than 10 nautical miles from the nearest shoreline need not comply with Paragraph (b)(2) of Part 61.109. However, if other air sports that permit civil operations are available to which a flight may be made without flying over water more than 10 nautical miles from the nearest shoreline, he must show that he has completed two round trip

solo flights between those two airports that are farthest apart, including a landing at each airport on both flights.

- (a) The pilot licenses issued to a person under Paragraph (a) of this Part contains an endorsement with the following limitation which may be subsequently amended to include another island if the applicant complies with Paragraph (9a) of this Part with respect to that island:
  - "Passenger carrying prohibited on flight more than 10 nautical miles from (appropriate island.")
- (c) If an applicant for a private pilot license under Paragraph (a) of this Part does not have at least 3 hours of solo cross-country flight time, including a round trip flight to an airport at least 50 nautical miles from the place of departure with at least two full stop landing at different points along the route, his pilot license is also endorsed as follows:
  - "Holder does not meet the cross-country flight requirements of ICAO."
- (d) The holder of a private pilot license with an endorsement described in Paragraph (b)or (c) of this Part, is entitled to a removal of the endorsement, if he present satisfactory evidence to a DGCA inspector or designated examiner that he has complied with the applicable solo cross-country flight requirements and has passed a practical test on cross-country flying.

# 61.113 Rotorcraft Rating: Aeronautical Experience

An applicant for a private pilot license with a rotorcraft category rating must have at least the following aeronautical experience:

- (a) Helicopter class rating. A total of 40 hours of flight instruction, 15 hours of which must be in a helicopter, including:
  - (1) 20 hours of flight instruction from an authorized flight instructor, 15 hours of which must be in a helicopter, including;
    - (i) 3 hours of cross-country flying in helicopters;
    - (ii) 3 hours of night flying in helicopter, including 10 takeoffs and landings, each of which must be separated by an enroute phase of flight;
    - (iii) 3 hours in helicopters in preparation for the private pilot flight test within 60 days before that test; and
    - (iv) A flight in a helicopter with a landing at a point other than an airport; and
  - (2) 20 hours of solo flight time, 15 hours of which must be in a helicopter, including at least;
    - (i) 3 hours of cross-country flying in helicopters; including one flight with a landing at three or more points, each of which must be more than 25 nautical miles from each of the other two points; and
    - (ii) Three takeoffs and landings in helicopters at an airport with an operating control tower, each of which must be separated by an enroute phase of flight.
- (b) Gyroplane class rating. A total of 40 hours of flight instruction and solo flight time in aircraft, including at least-

(1) 20 hours of flight instruction from an authorized flight instructor, 15 hours of which must be in a gyroplane, including-

- (i) 3 hours of cross-country flying in gyroplanes;
- (ii) 3 hours of night flying in gyroplanes, including 10 takeoffs and landings; and
- (iii) 3 hours in gyroplanes in preparation for the private pilot flight test within 60 days before that test; and
- (2) 20 hours of solo flight time, 10 hours of which must be in a gyroplane, including
  - (i) 3 hours of cross-country flying in gyroplanes, including one flight with a landing at three or more points, each of which must be more than 25 nautical miles from each of the other two points; and
  - (ii) Three takeoffs and landings in gyroplanes at an airport with an operating control tower.
- (c) An applicant who does not meet the night flying requirement in Paragraph 9(a)(1)(ii) or (b)(1)(ii) of this Part is issued a private pilot license bearing the limitation "night flying prohibited". This limitation may be removed if the holder of the license demonstrate compliance with requirements of Paragraph (a)(1)(ii) or (b)(1)(ii) of this Part, as appropriate.

## 61.115 Glider Rating: Aeronautical Experience

An applicant for a private pilot license with a glider rating must have logged at least one of the following:

- (a) Seventy solo glider flights, including 20 flights during which 360 degree turns were made.
- (b) Seven hours of solo flight in gliders, including 35 glider flights launched by ground tows, or 20 glider flights launched by aero tows.
- (c) Forty hours of flight time in gliders and single engine airplanes, including 10 solo glider flights during which 360 degree turns were made.

## 61.117 Lighter-Than-Air Rating: Aeronautical Experience

An applicant for a private pilot license with a lighter-than-air category rating must have at least the aeronautical experience prescribed in Paragraph (a) or (b) of this Part appropriate to the rating sought.

- (a) Airships. A total of 50 hours of flight time as pilot with at least 25 hours in airships, which must include 5 hours of solo flight time in airships, or time performing the functions of pilot in command of an airship for which more than one pilot is required.
- (b) Free balloons
  - (1) If a gas balloon or a hot air balloon with an airborne heater is used, a total of 10 hours in free balloons with at least six flights under the supervision of a person holding a commercial pilot license with a free balloon rating. These

flights must include

(i) Two flights, each of at least 1 hour's duration, if a gas balloon is used, or of 30 minutes' duration, if a hot air balloon with an airborne heater is used

- (ii) One ascent under control to 5,000 feet above the point of takeoff, if a gas balloon is used, or 3,000 feet above the point of takeoff, if a hot air balloon with an airborne heater is used; and
- (iii) One solo flight in a free balloon.
- (2) If a hot balloon without an airborne heater is used, six flights in a free balloon under the supervision of a commercial balloon pilot, including at least one solo flight.

## 61.118 Private Pilot Privileges And Limitations : Pilot In Command

- (a) Subject to compliance with validity and type rating requirements, the privileges of the holder of a private pilot license - airplane shall be to act, but not for remuneration, as pilot-in-command or co-pilot of any airplane engaged in nonrevenue flights.
- (b) Before exercising the privileges at night, the license holder shall have received dual instruction in airplanes in night flying, including take-offs, landing and navigation.
- (c) The privileges of the holder of a glider pilot licence shall be to act as pilot-incommand of any glider provided the licence holder has operational experience in the launching method used

#### 61.119 Free balloon Rating: Limitations

- (a) If the applicant for a free balloon rating takes his flight test in a hot air balloon with an airborne heater, his pilot license contains an endorsement restricting the exercise of the privilege of that rating to hot air balloons with airborne heaters. The restriction may be deleted when the holder of the license obtains the pilot experience required for a rating on a gas balloon.
- (b) If the applicant for a free balloon rating takes his flight test in a hot air balloon without an airborne heater, his pilot license contains and endorsement restricting the exercise of the privileges of that rating to hot air balloons without airborne heaters. The restriction may be deleted when the holder of the license obtains the pilot experience and passes the tests required for a rating on a free balloon with an airborne heater or a gas balloon.
- (c) If the privileges of free balloon rating are to be exercised at night, the applicant shall have gained, under appropriate supervision, operational experience in free balloons in night flying

# 61.120 Private Pilot Privileges and Limitations: Second in Command of Aircraft Requiring More Than One Required Pilot

A private pilot may not act as second in command of an aircraft that is type certificated for more than one required pilot.

#### SUBPART E - COMMERCIAL PILOTS

## 61.121 Applicability

This subpart prescribes the requirements for the issuance of commercial pilot licenses and ratings, the conditions under which those licenses and ratings are necessary, and the limitations upon those licenses and ratings.

## 61.123 Eligibility Requirements: General

To be eligible for a commercial pilot license, a person must:

- (a) Be at least 18 years of age;
- (b) Be able to read, speak, and understand the English language, or have such operating limitations placed on his pilot license as are necessary for safety, to be removed when he shows that he can read, speak, and understand the English language;
- (c) Hold at least a valid first-class medical certificate issued under Part 67 of the CASRs, or, in the case of a glider or free balloon rating, certify that he has no known medical deficiency that makes him unable to pilot a glider or a free balloon as appropriate;
- (d) Pass a written examination appropriate to the aircraft rating sought on the subject in which ground instruction is required by Part 61.125;
- (e) Pass an oral and flight test appropriate to the rating he seeks, covering items selected by the DGCA inspector or designated examiner from those on which training is required by Part 61.127; and

Comply with the provisions of this subpart which apply to the rating he seeks.

#### 61.125 Aeronautical Knowledge

(a) Airplane, airship, and helicopter

Air law

(1) rules and regulations relevant to the holder of a commercial pilot licence; rules of the air; appropriate air traffic services practices and procedures;

Aircraft general knowledge for aeroplanes, airships, helicopters and powered-lifts

- (2) principles of operation and functioning of engines, systems and instruments;
- (3) operating limitations of the relevant category of aircraft and engines; relevant operational information from the flight manual or other appropriate document;
- (4) use and serviceability checks of equipment and systems of appropriate aircraft;
- (5) maintenance procedures for airframes, systems and engines of appropriate aircraft;
- (6) for helicopters and powered-lifts, transmission (power trains) where applicable;

(7) for airships, physical properties and practical application of gases;

## Flight performance, planning and loading

- (8) effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations;
- (9) use and practical application of take-off, landing and other performance data;
- (10) 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; altimeter setting procedures;
- (11) in the case of airships, helicopters and powered-lifts, effects of external loading on handling;

# Human performance

(12) human performance including principles of threat and error management;

## Meteorology

- (13) interpretation and application of aeronautical meteorological reports, charts and forecasts; use of, and procedures for obtaining, meteorological information, pre-flight and in-flight; altimetry;
- (14) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems, the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route and landing conditions;
- (15) causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance:

## **Navigation**

- (16) air navigation, including the use of aeronautical charts, instruments and navigation aids; an understanding of the principles and characteristics of appropriate navigation systems; operation of airborne equipment;
- (17) in the case of airships:

#### Operational procedures

- (18) application of threat and error management to operational performance;
- (19) use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations;
- (20) altimeter setting procedures;
- (21) appropriate precautionary and emergency procedures;
- (22) operational procedures for carriage of freight; potential hazards associated with dangerous goods;
- (23) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft;
- (24) in the case of helicopters, and if applicable, powered-lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC;

#### Principles of flight

(25) principles of flight;

## Radiotelephony

(26) communication procedures and phraseology as applied to VFR operations; action to be taken in case of communication failure.

- (b) Free balloons.
  - (1) The regulations of the CASRs pertinent to commercial free balloon piloting privileges limitations, and flight operations;
  - (2) The use of aeronautical charts and the magnetic compass for free balloon navigation;
  - (3) The recognition of weather conditions significant to free balloon flight operations, and the procurement and use of aeronautical weather reports and forecasts appropriate to free ballooning;
  - (4) Free balloon flight and ground instruction procedures; and
  - (5) Operating principles and procedures for free balloons, including emergency procedures such as crowd control and protection, high wind and water landings, and operations in proximity to buildings and power lines.

## 61.127 Skill and Flight Instruction

#### Skill

The applicant shall have demonstrated the ability to perform as pilot-in-command of an aircraft within the appropriate category of aircraft, the procedures and manoeuvres described under this section with a degree of competency appropriate to the privileges granted to the holder of a commercial pilot licence, and to:

- (a) recognize and manage threats and errors;
- (b) operate the aircraft within its limitations;
- (c) complete all manoeuvres with smoothness and accuracy;
- (d) exercise good judgement and airmanship;
- (e) apply aeronautical knowledge; and
- (f) maintain control of the aircraft at all times in a manner such that the successful outcome of a procedure or manoeuvre is assured.

## Flight Instruction

- (a) Airplane
  - (1) recognize and manage threats and errors;
  - (2) pre-flight operations, including mass and balance determination, aeroplane inspection and servicing;
  - (3) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
  - (4) control of the aeroplane by external visual reference;
  - (5) flight at critically slow airspeeds; spin avoidance; recognition of, and recovery from, incipient and full stalls;
  - (6) flight with asymmetrical power for multi-engine class or type ratings;

(7) flight at critically high airspeeds; recognition of, and recovery from, spiral dives;

- (8) normal and crosswind take-offs and landings;
- (9) maximum performance (short field and obstacle clearance) take-offs; short-field landings;
- (10) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
- (11) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures;
- (12) abnormal and emergency procedures and manoeuvres including simulated aeroplane equipment malfunctions;
- (13) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- (14) communication procedures and phraseology.

## (b) Helicopter

- (1) recognize and manage threats and errors;
- (2) pre-flight operations, including mass and balance determination, helicopter inspection and servicing;
- (3) aerodrome and traffic pattern operations, collision avoidance precautions and procedures;
- (4) control of the helicopter by external visual reference;
- (5) recovery at the incipient stage from settling with power; recovery techniques from low-rotor rpm within the normal range of engine rpm;
- (6) ground manoeuvring and run-ups; hovering; take-offs and landings normal, out of wind and sloping ground; steep approaches;
- (7) take-offs and landings with minimum necessary power; maximum performance take-off and landing techniques; restricted site operations; quick stops;
- (8) hovering out of ground effect; operations with external load, if applicable; flight at high altitude;
- (9) basic flight manoeuvres and recovery from unusual attitudes by reference solely to basic flight instruments;
- (10) cross-country flying using visual reference, dead reckoning and radio navigation aids; diversion procedures;
- (11) abnormal and emergency procedures, including simulated helicopter equipment malfunctions, autorotative approach and landing;
- (12) operations to, from and transiting controlled aerodromes, compliance with air traffic services procedures; and
- (13) communication procedures and phraseology.

#### (c) Gyroplanes.

- (1) Preflight operations, including line inspection and gyroplane servicing;
- (2) Straight and level flight, turns, climbs, and descents;
- (3) Flight maneuvering by ground references;

(4) Maneuvering at critically slow airspeeds, and the recognition of and recovery from high rates of descent at slow airspeeds;

- (5) Normal and crosswind takeoffs and landings;
- (6) Airport and traffic pattern operations, including collision avoidance precautions and radio communications;
- (7) Cross-country flight operations; and
- (8) Emergency procedures, such as power failure, equipment malfunctions, maximum performance takeoffs and landings and simulated liftoffs at low airspeed and high angles of attack.

## (d) Airship.

- (1) recognize and manage threats and errors;
- (2) pre-flight operations, including mass and balance determination, airship 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 airship by external visual reference;
- (6) recognition of leaks;
- (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 available, 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) communication procedures and phraseology.
- (e) Free balloons.
  - (1) Assembly of basket and burner to the envelope, and rigging, inflating, and tethering of a free balloon;
  - (2) Ground and flight crew briefing:
  - (3) Ascents;
  - (4) Descents;
  - (5) Landings;
  - (6) Operation of airborne heater, if balloon is so equipped; and
  - (7) Emergency operations, including the use of the ripcord (may be simulated), and recovery from a terminal velocity descent if a balloon with an airborne heater is used.

## 61.129 Airplane Rating: Aeronautical Experience

An applicant for a commercial pilot license with a airplane category rating must have at least the following aeronautical experience as a pilot:

- (a) Not less than 200 hours of flight time, or 150 hours if completed during a course of training approved under Part 141 or 142, as a pilot of airplanes
- (b) The Director General may accept experience as a pilot under instruction in an approved synthetic flight trainer as part of the total time in (a) above, provided such experience is not more than 10 hours
- (c) 100 hours as pilot-in-command, or in the case of a course approved under Part 141 or 142, 70 hours as pilot-in-command
- (d) 20 hours of cross-country flight time as pilot-in-command including a cross-country flight totalling not less than 540km (300NM) in the course of which full-stop landings at two different aerodromes shall be made
- (e) 10 hours of instrument instruction time of which not more than 5 hours may be instrument ground time, and
- (f) If the privileges are to be exercised at night, 5 hours of night flight time including 5 take-offs and 5 landings as pilot-in-command.

## 61.131 Helicopter Ratings: Aeronautical Experience

An applicant for a commercial pilot license with a helicopter category rating must have at least the following aeronautical experience as a pilot:

- (a) Helicopter class rating. A total of 150 hours of flight time, including at least 100 hours in powered aircraft, 50 hours of which must be in a helicopter, including at least
  - (1) 40 hours of flight instruction from an authorized flight instructor, 15 hours of which must be in a helicopter, including:
    - (i) 3 hours of cross-country flying in helicopters;
    - (ii) 3 hours of night flying in helicopter, including 10 takeoffs and landings, each of which must be separated by an enroute phase of flight;
    - (iii) 3 hours in helicopters preparing for the commercial pilot flight test within 60 days before that test; and
    - (iv) Takeoffs and landings at three points other than airports; and
  - (2) 100 hours of pilot in command flight time, 35 hours of which must be in a helicopter, including at least-
    - 10 hours of cross-country flying in helicopters, including one flight with a landing at three or more points, each of which must be more than 50 nautical miles from each of the other two points; and
    - (ii) Three takeoffs and landings in helicopters, each of which must be separated by an enroute phase of flight, at an airport with an operating control tower.
- (b) Gyroplane class rating. A total of 150 hours of flight time in aircraft, including at least 100 hours in powered aircraft, 25 hours of which must be in a gyroplane, including at least:
  - (1) 40 hours of flight instruction from an authorized flight instructor, 10 hours of

which must be in a gyroplane, including at least:

- (i) 3 hours of cross country flying in gyroplanes;
- (ii) 3 hours of night flying in gyroplanes, including 10 takeoffs and landings; and
- (iii) 3 hours in gyroplanes preparing for the commercial pilot flight test within 60 days before that test; and
- (2) 100 hours of pilot in command flight time, 15 hours of which must be in gyroplane, including at least:
  - (i) 10 hours of cross-country flying in gyroplanes, including one flight with a landing at three or more points, each of which is more than 50 nautical miles from each of the other two points; and
  - (ii) Three takeoffs and landings in gyroplanes at an airport with an operating control tower.

## 61.133 [Reserved]

## 61.135 Airship Rating: Aeronautical Experience

An applicant for a commercial pilot license with an airship rating must have a total of at least 200 hours of flight time as pilot, including-

- (a) Fifty hours of flight time as pilot in airships;
- (b) 30 hours of flight time performing the duties of pilot in command in airships, including-
  - (1) 10 hours of cross-country flight; and
  - (2) 10 hours of night flight; and
- (c) 40 hours of instrument time, of which at least 20 hours must be in flight with 10 hours of that flight time in airships.

#### 61.137 Free balloon Rating: Aeronautical Experience

An applicant for a commercial pilot license with a free balloon rating must have the following flight time as pilot;

- (a) If a gas balloon or a hot air balloon with an airborne heater is used, a total of at least 35 hours of flight time as pilot including-
  - 20 hours in free balloons; and
  - (2) 10 flights in free balloons, including
    - (i) Six flight under the supervision of a commercial free balloons pilot;
    - (ii) Two solo flights;
    - (iii) Two flights of at least 2 hours duration if a gas balloon is used, or at least 1 hour duration if a hot air balloon with an airborne heater is used; and
    - (iv) One ascent under control to more than 10,000 feet above the takeoff point if a gas balloon is used or 5,000 feet above the takeoff point if a hot air balloon with an airborne heater is used.

(b) If a hot air balloon without an airborne heater is used, 10 flights in free balloons including-

- (1) Six flights under the supervision of a commercial free balloon pilot; and
- (2) Two solo flights.

## 61.139 Commercial Pilot Privileges And Limitations : General

Subject to compliance with validity and type rating requirements, the privileges of the holder of a commercial pilot license shall be:

- (a) to exercise all the privileges of the holder of a private pilot license airplane or helicopter, as appropriate
- (b) to act as pilot-in-command in any aircraft engaged in operations other than commercial air transport
- (c) to act as pilot-in-command in commercial air transport in any aircraft certificated for single-pilot operation, and
- (d) to act as co-pilot in commercial air transport in aircraft required to be operated with a co-pilot.

Before exercising the privileges at night, the license holder shall have complied with Part 61.118(b).

#### 61.141 Airship And Free Balloon Ratings: Limitations

- (a) If the applicant for a free balloon class rating takes his flight test in a hot air balloon without an airborne heater, his pilot license contains an endorsement restricting the exercise of the privileges of that rating to hot air balloons without airborne heaters. The restriction may be deleted when the holder of the license obtains the pilot experience and passes the test required for a rating on a free balloon with an airborne heater or a gas balloon.
- (b) If the applicant for a free balloon class rating takes his flight test in a hot air balloon with an air borne heater, his pilot license contains an endorsement restricting the exercise of the privileges of that rating to hot air balloons with airborne heaters. The restriction may be deleted when the holder of the license obtains the pilot experience required for a rating on a gas balloon.

#### SUBPART F - AIRLINE TRANSPORT PILOTS

## 61.151 Eligibility Requirements: General

To be eligible for an airline transport pilot license, a person must

- (a) Be at least 21 years of age;
- (b) Be of good moral character;
- (c) Be able to read, write, and understand the English language and speak it without accent or impediment of speech that would interfere with two-way radio conversation;
- (d) Be a high school graduate, or its equivalent in the Director General's opinion, based on the applicant's general experience and aeronautical experience, knowledge, and skill;
- (e) Have a first-class medical certificate issued under Part 67 of the CASRs within the 6 months before the date he applies; and
- (f) Comply with the sections of this part that apply to the rating he seeks.

## 61.153 Airplane Rating: Aeronautical Knowledge

The applicant shall have demonstrated a level of knowledge appropriate to the privileges to the holder of an airline transport pilot license - airplane, in at least the following subjects:

#### Air Law

 (a) rules and regulations relevant to the holder of an airline transport pilot license airplanes; rules of the air; appropriate air traffic services practices and procedures

#### Aircraft General Knowledge

- (b) general characteristics amd limitations of electrical, hydraulic, pressurisation and other airplane systems; flight control systems, including autopilot and stability augmentation
- (c) principles of operation, handling procedures and operating limitations of airplane powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;
- (d) operating procedures and limitations of appropriate airplanes; effects of atmospheric conditions on airplane performance;
- (e) use and serviceability checks of equipment and systems of appropriate airplanes;
- (f) flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;
- (g) maintenance procedures for airframes, systems and powerplants of appropriate

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airplanes;

## Flight performance and planning

(h) effects of loading and mass distribution on airplane handling, flight characteristics and performance; mass and balance calculations;

- (i) use and practical application of take-off, landing and other performance data, including procedures for cruise control;
- (j) preflight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;

# Human performance and limitations

 (k) human performance and limitations relevant to the airline transport pilot airplane;

# Meteorology

- interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, preflight and in-flight; altimetry;
- (m) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect takeoff, en-route and landing conditions;
- (n) causes, recognition and effects of engine and airframe icing; frontal zone penetration procedures; hazardous weather avoidance;
- (o) practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts; jetstrearns;

# Navigation

- (p) air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;
- (q) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of airplanes;
- (r) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;
- (s) principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;

## Operational procedures

- interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach;
- (u) precautionary and emergency procedures; safety practices associated with flight under IFR;
- (v) operational procedures for carriage of freight and dangerous goods;
- (w) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from airplanes;

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#### Principles of flight

(x) principles of flight relating to airplanes; sub-sonic aerodynamics; compressibility effects, manoeuvre boundary limits, wing design characteristics, effects of supplementary lift and drag devices; relationships between lift, drag and thrust at various airspeeds and in different flight configurations;

## Radiotelephony

(y) radiotelephony procedures and phraseology; action to be taken in case of communication failure.

In addition to the above subjects, the applicant for an airline transport pilot licence applicable to the airplane category shall have met the knowledge requirements for the instrument rating described in under Part **61.65** 

## 61.155 Airplane Rating: Aeronautical Experience

- (a) An application for an airline transport pilot license with an airplane rating must hold a commercial pilot license or a foreign airline transport pilot or commercial pilot license without limitations, issued by a member state of ICAO, or he must be a pilot in an Armed Force (TNI) of the Republic of Indonesia whose military experience qualifies him for a commercial pilot license under Part 61.73.
- (b) An applicant must have had:
  - (1) At least 250 hours of flight time as pilot in command of an airplane, or as copilot of an airplane performing the duties and functions of a pilot in command under the supervision of a pilot in command, or any combination thereof at least 100 hours of which were cross-country time and 25 hours of which were night flight time; and
  - (2) At least 1,500 hours of flight time as a pilot, including at least:
    - (i) 500 hours of cross-country flight time; of which not less than 100 hours shall be as pilot-in-command or as pilot-in-command under supervision;
    - (ii) 100 hours of night flight time; and
    - (iii) 75 hours of actual or simulated instrument time, at least 50 hours of which were in actual flight.

Flight time to meet the requirements of Paragraph (b)(1) of this Part may also be used to meet the requirements of Paragraph (b)(2) of this Part. Also, an applicant who has made at least 20 night takeoffs and landings to a full stop may substitute one additional night takeoff and landing to a full stop for each hour of night flight time required by Paragraph (b)(2)(ii) of this Part. However, not more than 25 hours of night flight time may be credited in this manner.

(c) The holder of a pilot license, when acting as a co-pilot of an aircraft required to be operated with a co-pilot, shall be entitled to be credited with not more than 50 per cent of the co-pilot flight time towards the total flight time required for a higher grade of license.

## 61.157 Airplane Rating: Skill and Flight Instruction

(a) An applicant for an airplane transport pilot license with a single engine or multiengine class rating or an additional type rating for a type certificated for two pilot operation must pass a practical test that includes the items set forth in

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Appendix A of this part. The DGCA inspector or designated examiner may modify any required maneuver where necessary for the reasonable and safe operation of the airplane being used and, unless specifically prohibited in Appendix A, may combine any required maneuvers and may permit their performance in any convenient sequence.

- (b) Whenever an applicant for an airline transport pilot license does not already have an instrument rating he shall, as part of the oral part of the practical test, comply with Part 61.65(g), and, as part of the flight part, perform each additional maneuver required by Part 61.65(g) that is appropriate to the airplane.
- (c) The applicant shall have demonstrated the ability to perform, as pilot-in-command of an aircraft within the appropriate category required to be operated with a co-pilot, the following procedures and manoeuvres:
  - (1) pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan;
  - (2) normal flight procedures and manoeuvres during all phases of flight;
  - (3) abnormal and emergency procedures and manoeuvres related to failures and malfunctions of equipment, such as engine, systems and airframe;
  - (4) procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation and use of checklists; and
  - (5) in the case of aeroplanes and powered-lifts, procedures and manoeuvres for instrument flight described in 2.7.4.1 a) to d), including simulated engine failure.
- (d) In the case of an aeroplane, the applicant shall have demonstrated the ability to perform the procedures and manoeuvres as pilot-in-command of a multi-engined aeroplane.
- (e) The applicant shall have demonstrated the ability to perform the procedures and manoeuvresaccording with a degree of competency appropriate to the privileges granted to the holder of an airline transport pilot licence, and to:
  - (1) recognize and manage threats and errors;
  - (2) smoothly and accurately, manually control the aircraft within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;
  - (3) operate the aircraft in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;
  - (4) perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight;
  - (5) exercise good judgement and airmanship, to include structured decision making and the maintenance of situational awareness; and
  - (6) communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to standard operating procedures (SOPs) and use of checklists.
- (f) Unless the Director General requires certain or all maneuvers to be performed, the person giving a flight test for an airline transport pilot license or additional airplane class or type rating may, in his discretion, <u>waive</u> any of the maneuvers for which a

specific waiver authority are required by DGCA if a pilot being checked:

- (1) Is employed as a pilot by a Part 121 certificate holder; and
- (2) Within the preceding 6 calendar months, has successfully completed that certificate holder's approved training program for the airplane type involved.
- (g) The items specified in Paragraph (a) of this Part may be performed in the airplane simulator or other training device required by DGCA for the particular item if:
  - (1) The airplane simulator or other training device meets the requirements of Part-121.407 of the CASRs; and
  - (2) The applicant has successfully completed the training. However, the DGCA inspector or designated examiner may require to be performed in the airplane if he determines that action is necessary to determine the applicant's competence with respect to that maneuver.
- (h) An approved simulate may be used instead of the airplane to satisfy some of the inflight requirements of this part, if the simulator Is approved under Part 121.407 of the CASRs and meets appropriate simulator requirements acceptable to DGCA.
- (i) After six months from the effective date of this part of the CASRs an applicant for a type rating to be added to an airline transport pilot license must:
  - (1) Have completed ground and flight training on the maneuvers and procedures of Appendix A of this part that is appropriate to the airplane for which a type rating is sought and received an endorsement from an authorized instructor in the person's logbook or and training records certifying satisfactory completion of the training; or
  - (2) For a pilot employee of a Part 121 or Part 135 certificate holder, have completed ground and flight training that is appropriate to the airplane for which a type rating is sought and is approved under Parts 121 and 135.
- (j) The applicant shall have received the dual flight instruction required at 61.127 for the issue of the commercial pilot licence and at 61.65 for the issue of the instrument rating

#### 61.159 Helicopter Rating: Aeronautical Knowledge

An applicant for an airline transport pilot license with a helicopter category and a helicopter class rating must pass a written test on :

Air Law

 (a) rules and regulations relevant to the holder of an airline transport pilot license airplanes; rules of the air; appropriate air traffic services practices and procedures

#### Aircraft General Knowledge

- (b) general characteristics amd limitations of electrical, hydraulic, pressurisation and other airplane systems; flight control systems, including autopilot and stability augmentation
- (c) principles of operation, handling procedures and operating limitations of airplane powerplants; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document;

(d) operating procedures and limitations of appropriate airplanes; effects of atmospheric conditions on airplane performance;

- (e) use and serviceability checks of equipment and systems of appropriate airplanes;
- (f) flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments;
- (g) maintenance procedures for airframes, systems and powerplants of appropriate airplanes;

# Flight performance and planning

- (h) effects of loading and mass distribution on airplane handling, flight characteristics and performance; mass and balance calculations;
- (i) use and practical application of take-off, landing and other performance data, including procedures for cruise control;
- (j) preflight and en-route operational flight planning; preparation and filing of air traffic services flight plans; appropriate air traffic services procedures; altimeter setting procedures;

# Human performance and limitations

(k) human performance and limitations relevant to the airline transport pilot airplane;

# Meteorology

- (I) interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining, meteorological information, preflight and in-flight; altimetry;
- (m) aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect takeoff, en-route and landing conditions;
- (n) causes, recognition and effects of engine and airframe icing; frontal zone penetration procedures; hazardous weather avoidance;
- (o) practical high altitude meteorology, including interpretation and use of weather reports, charts and forecasts; jetstreams;

# Navigation

- (p) air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights;
- (q) use, limitation and serviceability of avionics and instruments necessary for the control and navigation of airplanes;
- (r) use, accuracy and reliability of navigation systems used in departure, en-route, approach and landing phases of flight; identification of radio navigation aids;
- (s) principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment;

#### **Operational Procedure**

(t) interpretation and use of aeronautical documentation such as AIP, NOTAM,

- aeronautical codes and abbreviations, and instrument procedure charts for departure, en-route, descent and approach;
- (u) precautionary and emergency procedures; safety practices associated with flight under IFR;
- (v) operational procedures for carriage of freight and dangerous goods;
- (w) requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from airplanes;

# Principle of flight

(x) principles of flight relating to airplanes; sub-sonic aerodynamics; compressibility effects, manoeuvre boundary limits, wing design characteristics, effects of supplementary lift and drag devices; relationships between lift, drag and thrust at various airspeeds and in different flight configurations;

# Radiotelephony

(y) radiotelephony procedures and phraseology; action to be taken in case of communication failure.

In addition to the above subjects, the applicant for an airline transport pilot licence applicable to the airplane category shall have met the knowledge requirements for the instrument rating described in under Part 61.65

# 61.161 Helicopter Rating: Aeronautical Experience

- (a) An applicant for an airline transport pilot license with a helicopter category and helicopter class rating must hold a commercial pilot license, or a foreign airline transport pilot or commercial pilot license with a helicopter category and helicopter class rating issued by a member of ICAO, or be a pilot in an Armed Force (ABRI) of the Republic of Indonesia whose military experience qualifies that pilot for the issuance of a commercial pilot license under Part 61.73
- (b) An applicant must have had at least 1,200 hours of flight time as a pilot, including at least-
  - (1) 500 hours of cross-country flight time;
  - (2) 100 hours of night flight time, of which at lest 15 hours are in helicopters;
  - (3) 200 hours in helicopters, including at least 75 hours as pilot in command, or as second in command performing the duties and functions of a pilot in command under the supervision of a pilot in command, or any combination thereof: and
  - (4) 75 hours of instrument time under actual or simulated instrument conditions of which at least 50 hours were completed in flight with at least 25 hours in helicopters as pilot in command, or as second in command performing the duties of a pilot in command under the supervision of a pilot in command, or any combination thereof.

# 61.163 Helicopter Rating: Aeronautical Skill

(a) An applicant for an airline transport pilot license with a helicopter category and helicopter class rating, or additional aircraft rating, must pass a practical test on

those maneuvers set forth as required by DGCA in a helicopter. The DGCA inspector or designated examiner may modify or waive any maneuver where necessary for the reasonable and safe operation of the helicopter being used and may combine any maneuvers and permit their performance in any convenient sequence to determine the applicant's competency

(b) Whenever an applicant for an airline pilot license with a helicopter category and helicopter class rating does not already have an instrument rating, the applicant shall, as part of the practical test, comply with Part 61.65 (g).

# 61.165 Additional Category Ratings

- (a) Helicopter category with a helicopter class rating. The holder of an airline transport pilot license (airline category) who applies for a helicopter category with a helicopter class rating must meet the applicable requirements of Part 61.159, 61.161, and 61.163 and-
  - (1) Have at least 100 hours, including at least 15 hours at night, of helicopter flight time as pilot in command or as second in command performing the duties and functions of a pilot in command under the supervision of a pilot in command who holds an airline transport pilot license with an appropriate helicopter rating, or any combination thereof; or
  - (2) Complete a training program conducted by a certificated air carrier or other approved agency requiring at least 75 hours of helicopter flight time as pilot in command, second in command, or as flight instruction from an appropriately rated DGCA licensed flight instructor or an airline transport pilot, or any combination thereof, including at least 15 hours of night flight time.
- (b) Airplane rating. The holder of an airline transport pilot license (helicopter category) who applies for an airplane category must comply with Part 61.153, 61.155 (except Part 61.155(b)(1)), and 61.165 and :
  - (1) Have at least 100 hours, including at least 15 hours at night, of airplane flight time as pilot in command or as second in command performing the duties and functions of a pilot in command under the supervision of a pilot in command who holds an airline transport pilot license with an appropriate airplane rating, or any combination thereof; or
    - (2) Complete a training program conducted by a certificated air carrier or other approved agency requiring at least 75 hours of airplane flight time as pilot in command, second in command, or as flight instruction from an appropriately rated DGCA licensed flight instructor or an airline transportpilot, or any combination thereof, including at least 15 hours of night flight time.

# 61.167 Tests

(a) Each applicant for an airline transport license must pass each practical and theoretical test to the satisfaction of the Director General. The minimum passing grade in each subject is 70 percent. Each flight maneuver is graded separately. Other tests are graded as a whole.

(b) Information collected incidentally to such a test shall be treated as a confidential matter by the persons giving the test and by employees of the DGCA.

# 61.169 Instruction in Air Transportation Service

An airline transport pilot may instruct other pilots in air transportation service in aircraft of the category, class, and type for which he is rated. However, he may not instruct for more than 8 hours in one day nor more than 36 hours in any 7 day period. He may instruct under this Part only in aircraft with functioning dual controls. Unless he has a Flight Instructor License, an airline transport pilot may instruct only as provided in this Part.

# 61.171 General Privileges and Limitations

The privileges of the holder of an airline transport pilot licence shall be:

- a) to exercise all the privileges of the holder of a private and commercial pilot licence in an aircraft within the appropriate aircraft category and, in the case of a licence for the aeroplane and powered-lift categories, of the instrument rating; and
- b) to act as pilot-in-command, in commercial air transportation, of an aircraft within the appropriate category and certificated for operation with more than one pilot.

# SUBPART G - FLIGHT INSTRUCTORS LICENSES APPROPRIATE TO AIRPLANES AND HELICOPTERS

# 61.181 Applicability

This subpart prescribes the requirements for the issuance of Flight Instructor Licenses and ratings, the conditions under which those licenses and ratings are necessary, and the limitations upon these licenses and ratings.

# 61.183 Eligibility Requirements: General

To be eligible for a Flight Instructor License a person must:

- (a) Be at least 18 years of age;
- (b) Be of good moral character;
- (c) Read, write, and converse fluently in English;
- (d) Hold:
  - (1) A commercial or airline transport pilot license with an aircraft rating appropriate to the flight instructor rating sought, and
  - (2) An instrument rating, if the person is applying for an airplane or an instrument instructor rating:
- (e) Pass a written on the subjects in which ground instruction is required by Part 61.185; and
- (f) Pass a practical test on all items in which instruction is required by Part 61.186 and, in the case of an applicant for either a flight instructor airplane or flight instructor glider rating, present a logbook endorsement from an appropriately licensed and rated flight instructor who has provided the applicant with spin entry, spin, and spin recovery training in an aircraft of the appropriate category that is certificated for spins, and has found that applicant competent and proficient in those training areas. Except in the case of retest after failure for the deficiencies stated in Part 61.49(b), the person conducting the practical test may either accept the spin training logbook endorsement or require demonstration of the spin, and spin recovery maneuver on the flight portion of the practical test.
- (g) Be attached to a flying school or flying club.

# 61.185 Aeronautical Knowledge

- (a) Present evidence showing that he has satisfactorily completed a course of instruction in at least the following subjects:
  - (1) techniques of applied instruction;
  - (2) assessment of student performance in those subjects in which ground instruction is given;
  - (3) the learning process;
  - (4) elements of effective teaching;
  - (5) student evaluation and testing, training philosophies;
  - (6) training programme development;

- (7) lesson planning;
- (8) classroom instructional techniques;
- (9) use of training aids, including flight simulation training devices as appropriate;
- (10) analysis and correction of student errors;
- (11) human performance relevant to flight instruction including principles of threat and error management;
- (12) hazards involved in simulating system failures and malfunctions in the aircraft.
- (b) Have logged ground instruction from an authorized ground or flight instructor in all of the subjects in which ground instruction is required for a private and commercial pilot license, and for an instrument rating, if an airplane or instrument instructor rating is sought.

# 61.187 Skill and Flight Instruction

Skill

The applicant shall have demonstrated, in the category and class of aircraft for which flight instructor privileges are sought, the ability to instruct in those areas in which flight instruction is to be given, including pre-flight, post-flight and ground instruction as appropriate.

Flight instruction

The applicant shall, under the supervision of a flight instructor accepted by the Licensing Authority for that purpose:

- have received instruction in flight instructional techniques including demonstration, student practices, recognition and correction of common student errors; and
- b) havepractised instructional techniques in those flight manoeuvres and procedures in which it is intended to provide flight instruction.

#### 61.189 Flight instructor records

- (a) Each licensed flight instructor shall sign the logbook of each person to whom he has given flight or ground instruction and specify in that book the amount of the time and the date on which it was given. In addition, he shall maintain a record in his flight instructor logbook, or in a separate document containing the following:
  - (1) The name of each person whose logbook or student pilot license he has endorsed for solo flight privileges. The record must include the type and date of each endorsement
  - (2) The name of each person for whom he has signed a certification for a written, flight, or practical test, including the kind of test, date of his certification, and the result of the test.
- (b) The record required by this Part shall be retained by the flight instructor separately or in his logbook for at least 3 years.

# 61.191 Additional Flight Instructor Ratings

The holder of a Flight Instructor License who applies for an additional rating on that

#### license must:

(a) Hold an effective pilot license with ratings appropriate to the flight instructor rating sought.

- (b) Have had at least 15 hours as pilot in command in the category and class of aircraft appropriate to the rating sought; and
- (c) Pass the written and practical test prescribed in this subpart for the issuance of a Flight Instructor License with the rating sought.

# 61.193 Flight instructor authorizations

- (a) The holder of a Flight Instructor License is authorized, within the limitations of that person's Flight Instructor License and ratings, to give the-
  - (1) Flight instruction required by this part for a pilot license or rating;
  - (2) Ground instruction course required by this part for a pilot license and rating;
  - (3) Ground and flight instruction required by this subpart for a flight instruction license and rating, if that person meets the requirements prescribed in Part 61.187 (b);
  - (4) Flight instruction on a flight simulation training device;
  - (5) Flight instruction required for an initial solo or cross-country flight;
  - (6) Flight review required in Part 61.56 in a manner acceptable to the Director General;
  - (7) Instrument competency check required in Part 61.157(e)(2);
  - (8) Pilot in command flight instruction required under Part 61.101 (d); and
  - (9) Ground and flight instruction required by this part for the issuance of the endorsement specified in Paragraph (b) of this Part.
- (b) The holder of a Flight Instructor License is authorized within the limitations of that person's Flight Instructor License and ratings, to endorse-
  - (1) In accordance with Part 61.87(m) and 61.93(c) and (d), the pilot license of a student pilot the flight instructor has instructed authorizing the student to conduct solo or solo cross—country flights, or to act as pilot in command of an airship requiring more than one flight crew member;
  - (2) In accordance with Part 61.86(m) and 61.93(b) and (d), the logbook of a student pilot the flight instructor has instructed, authorizing single or repeated solo flights;
  - (3) In accordance with Part 61.93(d), the logbook of a student pilot whose preparation and preflight planning for a solo cross-country flight the flight instructor has reviewed and found adequate for a safe flight under the conditions the flight instructor has listed in the logbook;
  - (4) In accordance with Part 61.59, the logbook of a student pilot the flight instructor has instructed authorizing solo flight in a class B airspace area or at an airport within a Class B airspace area.
  - (5) The logbook of a pilot or another flight instructor who has been trained by the person described in Paragraph(b) of this Part, certifying that the pilot or other

- flight instructor is prepared for an operating privilege, a written test, or practical test required by this part;
- (6) In accordance with Part 61.57(e)(2) and 61.101(d) the logbook of a pilot the flight instructor has instructed authorizing the pilot to act as pilot in command;

(7) In accordance with Part 61.101 (g) and (h), the logbook of a sport pilot the flight instructor has instructed authorizing solo flight.

# 61.195 Flight instructor limitations.

The holder of a Flight Instructor License is subject to the following limitations:

- (a) Hours of instruction. He may not conduct more than eight hours of flight instruction in any period of 24 consecutive hours.
- (b) Ratings. Flight instruction may not be conducted in any aircraft for which the flight instructor does not hold a category, class, and if appropriate, a type rating, on the flight instructor's pilot and Flight Instructor Licenses.
- (c) Endorsement of student pilot license. He may not endorse a student pilot license for initial solo or solo cross-country flight privileges, unless he has given that student pilot flight instruction required by this part for the endorsement, and considers that the student is prepared to conduct the flight safely with the aircraft involved.
- (d) Logbook endorsement. He may not endorse a student pilot's logbook-
  - (1) For solo flight unless he has given that student flight instruction and found that student pilot prepared for solo flight in the type of aircraft involved;
  - (2) For a cross-country flight, unless he has reviewed the student's flight preparation, planning, equipment, and proposed procedures and found them to be adequate for the flight proposed under existing circumstances; or
  - (3) For solo flight in a Class B airspace are or at an airport within a Class B airspace area unless the flight instructor has given that student ground and flight instruction and has found that student prepared and competent to conduct the operations authorized.
- (e) Solo flight. He may not authorize any student pilot to make a solo flight unless he possesses a valid student pilot license endorsed for solo in the make and model aircraft to be flown. In addition, he may not authorize any student pilot to make a solo cross-country flight unless he possesses a valid student pilot license endorsed for solo cross-country flight in the category of aircraft to be flown.
- (f) Instruction in multiengine airplane or helicopter. He may not give flight instruction required for the issuance of a license or a category, or class rating, in a multiengine airplane or a helicopter, unless he has at least 5 hours of experience as pilot in command in the make and model of that airplane or helicopter, as the case may be.

#### 61.197 Renewal of Flight Instructor Licenses

The holder of a Flight Instructor License may have his license renewed for an additional period of 24 months if he passes the practical test for a Flight Instructor License and the

rating involved, or those portions of that test that the Director General considers necessary to determine his competency as a flight instructor. His license may be renewed without taking the practical test if-

- (a) His record of instruction shows that he is a competent flight instructor;
- (b) He has a satisfactory record as a company check pilot, chief flight instructor, pilot in command of an aircraft operated under Part 121 of the CASRs, or other activity involving the regular evaluation of pilots, and passes any oral test that may be necessary to determine that instructor knowledge of current pilot training and certification requirements and standards; or
- (c) He has successfully completed, within 90 days before the application for the renewal of his license, an approved flight instructor refresher course consisting of ground or flight instruction, or both.

# 61.199 Expired Flight Instructor Licenses and ratings.

- (a) Flight Instructor Licenses. The holder of an expired Flight Instructor License may exchange that license for a new license by passing the practical test prescribed in Part 61.187
- (b) Assistant flight instructor ratings. An assistant flight instructor rating is no longer valid and may not be exchanged for a similar rating or a Flight Instructor License. The holder of either of that rating is issued a Flight Instructor License only if he passes the written and practical test prescribed in this subpart for the issue of that license.

# APPENDIX A - PRACTICAL TEST REQUIREMENTS FOR AIRPLANE AIRLINE TRANSPORT PILOT LICENSES AND ASSOCIATED CLASS AND TYPE RATINGS

Throughout the maneuvers prescribe in this appendix, good judgement commensurate with a high level of safety must be demonstrated. In determining whether such judgment has been shown, the DGCA inspector or designed examiner who conducts the check considers adherence to approved procedures, actions based on analysis of situation for which there is no prescribed procedure or recommended practice, and qualities of prudence and care in selecting a course of action.

Each maneuver or procedure must be performed in-flight except to the extent that certain maneuvers or procedures may be performed in an airplanes simulator with a visual system (visual simulator) or an airplane simulator without a visual system (non-visual simulator) or <u>may be waived</u> as indicated by an X in the appropriate columns. A maneuver authorized to be performed in a non-visual simulator may be performed in a visual simulator, and a maneuver authorized to be performed in a training device may be performed in a non-visual or a visual simulator.

An asterisk (\*) preceding a maneuver or procedure indicates that the maneuver or procedure may be performed in an airplane simulator or other training device as indicated, provided the applicant has successfully completed the training set forth in Part 121.424(d) of the CASRs.

When a maneuver or procedure is preceded by this symbol (#), it indicates that the DGCA inspector or designed examiner may require the maneuver or procedure to be performed in the airplane if he determines such action is necessary to determine the applicant's competence with respect to that maneuver.

An X and asterisk (X\*) indicates that a particular condition is specified in connection with the maneuver, procedure, or <u>waiver provisions</u>.

# Key:

RS = Required, Simulated instrument conditions RI = Required, In-flight

PV = Permitted, Visual simulator

PN = Permitted, Non-visual simulator PT = Permitted, Training device

PW = Permitted, Waiver provision of Part 61.157 (c)

The procedures and maneuvers set forth in this appendix must be performed in a manner that satisfactorily demonstrates knowledge and skill with respect to:

- (1) The airplane, its systems and components;
- (2) Proper control of airspeed, configuration, direction, altitude, and attitude in accordance with procedures and limitations contained in the approved Airplane

Flight Manual, check lists, or other approved material appropriate to the airplane type; and

(3) Compliance with approved enroute, instrument approach, missed approach, ATC, or other applicable procedures.

# 61xA.I Preflight

- (a) Equipment examination (oral). As part of the practical test the equipment examination must be closely coordinated with and related to, the flight maneuvers portion but may not be given during the flight maneuvers portion. Notwithstanding Part 61.21 the equipment examination may be given to an applicant who has completed a ground school that is part of an approved training program under Civil Aviation Safety Regulation Part 121 for the airplane type involved and who is recommended by his instructor. The equipment examination must be repeated if the flight maneuvers portion is not satisfactorily completed within 60 days. The equipment examination must cover airplane, its powerplants, systems, components, operational, and performance factors; {PT}
  - (1) Subject requiring a practical knowledge of the airplane, its powerplants, systems, components, operational, and performance factors;
  - (2) Normal, abnormal, and emergency procedures, and the operations and limitations relating to those procedures; and
  - (3) The appropriate provisions of the approved Airplane Flight Manual.
- (b) Preflight Inspection. The pilot must-
  - (1) Conduct an actual visual inspection of the exterior and interior of the airplane, locating each item and explaining briefly the purpose of inspecting it; and {PT,PW\*}
  - (2) Demonstrate the use of the prestart checklist, appropriate control system checks, starting procedures, radio and electronic equipment checks, and the selection of proper navigation and communications radio facilities and frequencies prior to flight.{PN}

If a flight engineer is a required crewmember for the particular type airplane, the actual visual inspection may either be <u>waived</u> or it may be replaced by using an approved pictorial means that realistically portrays the location and detail of inspection items.

- (c) Taxiing. This maneuvers includes taxiing, sailing, or docking procedures in compliance with instructions issued by the appropriate traffic control authority or by the DGCA inspector or designated examiner. {RI}
- (d) Powerplant checks. As appropriate to the airplane type. {PN}

#### 61xA.II Takeoffs

- (a) Normal. One normal takeoff which, for the purpose of this maneuver begins when the airplane is taxied into position on the runway to be used. {RI}
- \*(b) Instrument. One takeoff with instrument conditions simulated at or before reaching

an altitude of 100 feet above the airport elevation. {RS,PV}

(c) Crosswind. One crosswind takeoff, if practical under the existing meteorological, airport, and traffic conditions. {RI\*}

- #\*(d) Powerplant failure. One takeoff with a simulated failure of the most critical powerplant. {PV}
  - (1) At a point after V1 and before V2 that in the judgement of the person conducting the check is appropriate to the airplane type under the prevailing conditions;
  - (2) At a point as close as possible after V1 when V1 and V2 or V1 and Vr are identical; or
  - (3) At the appropriate speed for non-transport category airplanes.

For additional type ratings in an airplane group with engines mounted in similar position or from wing mounted engines to aft fuselage mounted engines this maneuver may be performed in a non-visual simulator

(e) Rejected. A rejected takeoff performed in an airplane during a normal takeoff run after reaching a reasonable speed determined by giving due consideration to aircraft characteristics, runway length, surface conditions, wind direction and velocity, brake heat energy, and any other pertinent factors that may adversely affect safety or the airplane.{PN,PW\*}

#### 61xA.III Instrument Procedures

- (a) Area departure and area arrival. During each of these maneuvers the applicant must {RS, PN, PW}
  - (1) Adhere to actual or simulated ATC clearances (including assigned radials);and
  - (2) Properly use available navigation facilities.

Either area arrival or area departure, but not both, <u>may be waived</u> under Part 61.157 (c)

- (b) Holding. This maneuver includes entering, maintaining, and leaving holding patterns. It may be performed under either area departure or area arrival. {RS,PN,PW\*}
- (c) ILS and other instrument approaches. There must be the following:
  - \*(1) At least one normal ILS approach. {RS, PV}
  - #(2) At least one manually controlled ILS approach with a simulated failure of one powerplant. The simulated failure should occur before initiating the final approach course and must continue to touchdown or through the missed approach procedure. {RS, PV}
    - However, either the normal ILS approach or the manually controlled ILS approach must be performed in flight.
  - (3) At least one non-precision approach procedure that is representative of the non-precision approach procedures that the applicant is likely to use.{RS,PV}

(4) Demonstration of at least one non-precision approach procedure on a letdown aid other than the approach procedure performed under Subparagraph (3) of this paragraph that the applicant is likely to use. If performed in a synthetic instrument trainer, the procedures must be observed by the DGCA inspector or designated examiner, or if the applicant has completed an approved training course under Part 121 of the CASRs for the airplane type involved, the procedures may be observed by a person qualified to act as an instructor or DGCA-approved check pilot under that approved training program.{RS,PT}

Each instrument approach must be performed according to any procedures and limitations approved for the approach facility used. The instrument approach begins when the airplane is over the initial approach fix for the approach procedure being used (or turned over to the final approach controller in the case of GCA approach) and ends when the airplane touches down on the runway or when transition to a missed approach configuration is completed. Instrument conditions need not to be simulated below 100 feet above touchdown zone elevation.

- (d) Circling approaches. At least one circling approach must be made under the following conditions: {PV, PW\*}
  - (1) The portion of the circling approach to the authorized minimum circling approach altitude must be made under simulated instrument conditions.{RS}
  - (2) The approach must be made to the authorized minimum circling approach altitude followed by a change in heading and the necessary maneuvering (by visual reference) to maintain a flight path that permits a normal landing on a runway at least 90 degrees from the final approach course of the simulated instrument portion of the approach.
  - (3) The circling approach must be performed without excessive maneuvering, and without exceeding the normal operating limits of the airplane. The angle of bank should not exceed 30 degrees.

When the maneuver is performed in an airplane, <u>it may be waived</u> as provided in Part 61.157 (c) if local conditions beyond the control of the pilot prohibit the maneuver or prevent it from being performed as required.

The circling approach maneuver is not required for a pilot employed by a certificate holder subject to the operating rules of Part 121 of the CASRs, if the certificate holder's manual prohibits a circling approach in weather conditions below 1000-foot ceiling and 3 miles visibility.

\*(e) Missed approaches. Each applicant must perform at least two missed approaches, with at least one missed approach from an ILS approach. A complete approved missed approach procedure must be accomplished at least once and, at the discretion of the DGCA inspector or designated examiner, a simulated powerplant failure may be required during any of the missed approaches. These maneuvers may be performed either independently or in conjunction with maneuvers required under Parts III or V or this appendix. At least one must be performed in-flight.{RS,RI,PV\*}

# 61x.A.IV In-flight Maneuvers

\*(a) Steep turns. At least one steep turn in each direction must be performed. Each steep turn must involve a bank angle of 45 degrees with a heading change of at least 180 degrees but not more than 360 degrees. {RS, PN, PW}

- \*(b) Approaches to stalls. For the purpose of this maneuver the required approach to a stall is reached when there is a perceptible buffet or other response to the initial stall entry. Except as provided below, there must be at least three approaches to stalls as follows: {RS, PN, and PW}
  - (1) One must be in the takeoff configuration (except where the airplane uses only a zero flap takeoff configuration).
  - (2) One in a clean configuration.
  - (3) One in landing configuration.

At the discretion of the DGCA inspector or designated examiner, one approach to a stall must be performed in one of the above configurations while in a turn with a bank angle between 15 degrees and 30 degrees. Two out of the three approaches required by this paragraph <u>may be waived</u> as provided in Part 61.157 (c).

- \*(c) Specific flight characteristics. Recovery from specific flight characteristics that are peculiar to the airplane type. {PN, PW}
- (d) Powerplant failures. In addition to the specific requirements for maneuvers with simulated powerplant failures, the DGCA inspector or designated examiner may require a simulated powerplant failure at any time during the check. {RI}

# 61xA.V Landings and Approaches to Landings

Notwithstanding the authorizations for combining of maneuvers and for <u>waiver</u> of maneuvers, at least three actual landings (one to a full stop) must be made. These landings must include the types listed below but more than one type can be combined where appropriate:

- (a) Normal landing. {RI}
- #(b) Landing in sequence from an ILS instrument approach except that if circumstances beyond the control of the pilot prevent an actual landing, the person conducting the check may accept an approach to a point where in his judgment a landing to a full stop could have been made. In addition, where a simulator approved for the landing maneuver out of an ILS approach is used, the approach may be continued through the landing and credit given for 1 of the 3 landings required by this Part. {PV\*}
- (c) Cross wind landing, if practical under existing meteorological, airport, and traffic conditions. {RI\*}
- #(d) Maneuvering to a landing with simulated powerplant failure, as follows: {PV\*}
  - (1) In the case of three engine airplanes, maneuvering to a landing with an approved procedure that approximates the loss of 2 powerplants (center and 1 outboard engine); or

(2) In the case of other multiengine airplanes, maneuvering to a landing with a simulated failure of 50 percent of available powerplants, with the simulated loss of power on one side of the airplane. However, before Jan. 1, 1975, in the case of a four engine turbojet powered airplane, maneuvering to a landing with a simulated failure of the most critical powerplant may be substitute therefor, if a flight instructor in an approved training program under Part 121 of the CASRs certifies to the Director General that he has observed the applicant satisfactorily perform a landing in that type airplane with a simulated failure of 50 percent of the available powerplants.

The substitute maneuver may not be used if the Director General determines that training in the two engine-out landing maneuver provided in the training program is unsatisfactory.

If an applicant performs this maneuver in a visual simulator, he must, in addition, maneuver in flight to a landing with a simulated failure of the most critical powerplant.

- \*(e) Except as provided in Paragraph (f), landing under simulated circling approach conditions except that if circumstances beyond the control of the pilot prevent a landing, the person conducting the check may accept an approach to a point where, in his judgment, a landing to a full stop could have been made. {PV}
  - The circling approach maneuver is not required for a pilot employed by a certificate holder subject to the operating rules of Part 121 of the CASRs, if the certificate holder's manual prohibits a circling approach in weather condition below 1000 3 (ceiling and visibility).
- \*#(f) A rejected landing, including a normal missed approach procedure, that is rejected approximately 50 feet over the runway and approximately over the runway threshold. This maneuver may be combined with instrument, circling, or missed approach procedures, but instrument conditions need not be simulated below 100 feet above the runway. {RS\*, PV\*}
- #(g) A zero flap visual approach to a point where, in the judgment of the person conducting the check, a landing to a full stop on the appropriate runway could be made. This maneuver is not required for a particular airplane type if the Director General has determined that the probability of flap extension failure on that type is extremely remote due to system design. In making this determination, the Director General determines whether checking on slats only and partial flap approach is necessary. {PV\*}
- (h) For a single powerplant rating only, unless the applicant holds a commercial pilot license, he must accomplish accurate approaches and spot landings that include a series of three landings from an altitude of 1,000 feet or less, with the engine throttled and 180 degrees change in direction. The airplane must touch the ground in a normal landing attitude beyond and within 200 feet from a designated line. At least one landing must be from a forward slip. One hundred eighty degree approaches using two 90 degree turns with a straight base leg are preferred although circular approaches are acceptable. {RI}

#### 61xA.VI Normal and Abnormal Procedures

Each applicant must demonstrate the proper use of as many of the systems and devices listed below as the DGCA inspector or designated examiner finds are necessary to determine that the person being checked has a practical knowledge of the use of the systems and devices appropriate to the aircraft type:

- (a) Anti-icing and deicing systems. {PN}
- (b) Autopilot systems. {PN}
- (c) Automatic or other approach aid systems. {PN}
- (d) Stall warning devices, stall avoidance devices, and stability augmentation devices. {PN}
- (e) Airborne radar devices. {PN}
- (f) Any other systems, devices, or aids available. {PN}
- (g) Hydraulic and electrical system failures and malfunctions. {PT}
- (h) Landing gear and flap systems failures or malfunctions. {PT}
- (i) Failure of navigation or communications equipment. {PN}

# 61xA.VII Emergency Procedures

Each applicant must demonstrate the proper emergency procedures for as many of the emergency situations listed below as the DGCA inspector or designated examiner finds are necessary to determine that the person being checked has an adequate knowledge of, and ability to perform, such procedures:

- (a) Fire in-flight. {PN}
- (b) Smoke control. (PN)
- (c) Rapid decompression. (PN)
- (d) Emergency descent. {PN}
- (e) Any other emergency procedures outlined in the appropriate approved airplane flight manual. {PN}

# APPENDIX B - PRACTICAL TEST REQUIREMENTS FOR HELICOPTER AIRLINE TRANSPORT PILOT LICENSES WITH A HELICOPTER CLASS RATING AND ASSOCIATED TYPE RATINGS

Throughout the maneuvers prescribed in this appendix, good judgment commensurate with a high level of safety must be demonstrated. In determining whether such judgment has been shown, the DGCA inspector or designated examiner who conducts the check considers adherence to approved procedures, actions based on analysis of situations for which there is no prescribed procedure or recommended practice, and qualities of prudence and care in selecting a course of action. The successful outcome of a procedure or maneuver will never be in doubt.

The maneuvers and procedures in this appendix must be performed in a manner that satisfactorily demonstrates knowledge and skill with respect to-

- (1) The helicopter, its systems, and components;
- (2) Proper control of airspeed, direction, altitude, and attitude in accordance with procedures and limitations contained in the approved Rotorcraft Flight Manual, checklists, or other approved material appropriate to the rotorcraft type; and
- (3) Compliance with approved enroute, instrument approach, missed approach, ATC, and other applicable procedures.

# 61xB.I Preflight

- (a) Equipment examination (oral). The equipment examination must be repeated if the flight maneuvers portion is not satisfactorily completed within 60 days. The equipment examination must cover-
  - (1) Subjects requiring a practical knowledge of the helicopter, its powerplants, systems, components, and operational and performance factors;
  - (2) Normal, abnormal, and emergency procedures and related operations and limitations; and
  - (3) The appropriate provisions of the approved helicopter Flight Manual or manual material.
- (b) Preflight inspection. The pilot must-
  - (1) Conduct an actual visual inspection of the exterior and interior of helicopter, locating each item and explaining briefly the purpose of inspecting it; and
  - (2) Demonstrate the use of the prestart checklist, appropriate control system checks, starting procedures, radio and electronic equipment checks, and the selection of proper navigation and communications radio facilities and frequencies before flight.
- (c) Taxiing. The maneuver includes ground taxiing, hover taxiing (including performance checks), and docking procedures, as appropriate, in compliance with instructions issued by ATC, the DGCA inspector, or the designated examiner.
- (d) Powerplant checks. As appropriate to the helicopter type in accordance with the Helicopter Flight Manual procedures.

#### 61xB.II Takeoffs

(a) Normal. One normal takeoff from a stabilized hover which begins when the helicopter is taxied into position for takeoff.

- (b) Instrument. One takeoff with instrument conditions simulated at or before reaching 100 feet above airport elevation.
- (c) Crosswind. One crosswind takeoff from a stabilized hover, if practical under the existing meteorological, airport, and traffic elevation.
- (d) Powerplant failure.
  - (1) For single engine Helicopter, one normal takeoff with simulated powerplant failure.
  - (2) For multiengine Helicopters, one normal takeoff with simulated failure of one engine:
    - (i) At an appropriate airspeed that would allow continued climb performance in forward flight; or
    - (ii) At an appropriate airspeed that is 50 percent of normal cruise speed, if there is no published single engine climb airspeed for that type of helicopter.
- (e) Rejected. One normal takeoff that is rejected after simulated engine failure at a reasonable airspeed, determined by giving due consideration to the helicopter's characteristics, length of landing area, surface conditions, wind direction and velocity, and any other pertinent factors that may adversely affect safety.

#### 61xB.III Instrument Procedures

- (a) Area departure and arrival. During each of these maneuvers, the applicant must-
  - Adhere to actual and simulated ATC clearances (including assigned bearings or radials); and
  - (2) Properly use available navigation facilities.
- (b) Holding. This maneuver includes entering, maintaining, and leaving holding patterns.
- (c) ILS and other instrument approaches. The instrument approach begins when the helicopter is over the initial approach fix for the approach procedure being used (or turned over to the final controller in case of a surveillance or precision radar approach) and ends when the helicopter terminates at a hover or touches down or where transition to a missed approach is completed. The following approaches must be performed:
  - At least one normal ILS approach.
  - (2) For multiengine helicopters, at least one manually controlled ILS approach with a simulated failure of one powerplant. The simulated engine failure should occur before initiating the final approach course and continue to a hover to touchdown or through the missed approach procedure.
  - (3) At least one non-precision approach procedure that is representative of the non-precision approach procedure that the applicant is likely to use.

(4) At least one non-precision approach procedure on a letdown aid other than the approach procedure performed under Subparagraph (3) of this paragraph that the applicant is likely to use.

- (d) Circling approaches. At least one circling approach must be made under the following conditions:
  - (1) The portion of the circling approach to the authorized minimum circling approach altitude must be made under simulated instrument conditions.
  - (2) The approach must be made to the authorized minimum circling approach altitude followed by a change in heading and the necessary maneuvering (by visual reference) to maintain a flight path that permits a normal landing on a runway at least 90 degrees from the final approach course of the simulated instrument portion of the approach.
  - (3) The circling approach must be performed without excessive maneuvering and without exceeding the normal operating limits of the rotorcraft. The angle of bank should not exceed 30 degrees.
- (e) Missed approaches. Each applicant must perform at least two missed approaches with at least one missed approach from an ILS approach. At the discretion of the DGCA inspector or designated examiner, a simulated powerplant failure may be required during any of the missed approaches. The maneuver may be performed either independently or in conjunction with maneuvers required under Part III or V of this appendix. At least one must be performed in flight.

# 61xB.IV In-flight Maneuvers

- (a) Steep turns. At least one steep turn in each direction must be performed. Each steep turn must involve a bank angle of 30 degrees with a heading change of at least 180 degrees but not more than 360 degrees.
- (b) Settling with power. Demonstrate recognition of and recovery from imminent flight at critical/rapid descent with power. For the purpose of this maneuver, settling with power is reached when a perceptive buffet or other indications of imminent settling with power have been induced.
- (c) Powerplant failure. In addition to the specific requirements for maneuvers with simulated powerplant failures, the DGCA inspector or designated examiner may require a simulated powerplant failure at any time during the check.
- (d) Recovery from unusual attitudes.

# 61xB.V Approaches and Landings

- (a) Normal. One normal approach to a stabilized hover or to the ground must be performed.
- (b) Instrument. One approach to a hover or to a landing in sequence from an ILS instrument approach.
- (c) Crosswind. One crosswind approach to a hover or to the ground, if practical under

- the existing meteorological, airport, or traffic conditions.
- (d) Powerplant failure. For a multiengine rotorcraft, maneuvering to a landing with simulated powerplant failure of one engine.
- (e) Rejected. Rejected landing, including a normal missed approach procedure at approximately 50 feet above the runway. This maneuver may be combined with instrument or missed approach procedures, but instrument conditions need not be simulated below 100 feet above the runway or landing area.
- (f) Autorotative landings. Autorotative landings in a single engine helicopter. The applicant may be required to accomplish at least one autorotative approach and landing from any phase of flight as specified by the DGCA inspector or designated examiner.

#### 61xB.VI Normal and Abnormal Procedures

Each applicant must demonstrate the proper use of as many systems and devices listed below as the DGCA inspector or designated examiner finds are necessary to determine that the applicant has a practical knowledge of the use of the systems and devices appropriate to the helicopter type:

- (a) Anti-icing or deicing systems.
- (b) Autopilot or other stability augmentation devices.
- (c) Airborne radar devices.
- (d) Hydraulic and electrical systems failures or malfunctions.
- (e) Landing gear failures or malfunctions.
- (f) Failures of navigation or communications equipment.
- (g) Any other system appropriate to the helicopter as outlined in the approved Rotorcraft Flight Manual.

#### 61xB.VII Emergency Procedures

Each applicant must demonstrated the proper emergency procedures for as many of the emergency situations listed below as the DGCA inspector or designated airmen examiner finds are necessary to determine that the applicant has adequate knowledge of, and ability to perform, such procedures:

- (a) Fire or smoke control in flight.
- (b) Ditching.
- (c) Evacuation.
- (d) Operation of emergency equipment.
- (e) Emergency descent.
- (f) Any other emergency procedure outline in the approved Rotorcraft Flight Manual.

# APPENDIX C - LANGUAGE PROFICIENCY RATING SCALE

	T == =			T ==	T	·
LEVEL	PRONUNCIATION Assumes a dialect	STRUCTURE Relevant	VOCABULARY	FLUENCY	COMPREHENSION	INTERACTIONS
	and/or accent	grammatical				
	intelligible to the	structures				
	aeronautical	and sentence				
	community	patterns are				
		determined				
		by language				
		functions				
		appropriate				
		to the task				
Expert	Pronunciation,	Both basic	Vocabulary	Able to	Comprehension is	Interacts with
6	rhythm, and intonation, though	and complex grammatical	range and accuracy are	speak at length with	consistently accurate in nearly	ease in neatly all situations. Is
	possibly influenced by	structures	sufficient to	a natural,	all contexts and	sensitive to
	the first language or	and sentence	communicate	effortless	includes	verbal and non-
	regional variation,	patterns are	effectively on a	flow. Varies	comprehension of	verbal cues and
	almost never interfere	consistently well	wide variety of	speech flow	linguistic and	responds to
	with ease of	controlled	familiar and unfamiliar	for stylistic effect, e.g.	cultural subtitles.	Them appropriately.
	understanding		topics.	to		
			Vocabulary is	emphasize		
			idiomatic,	a point.		
			nuanced, and	Uses		
			sensitive to	appropriate		
			register.	discourse		
				markers		
				and		
				connectors		
				spontaneously.		
Extended	Pronunciation,	Basic grammatical	Vocabulary range	Able to	Comprehension is	Responses are
	stress,	basic graiiiiiaticai	and	Able to	Comprehensions	Responses are
5	rhythm, and	structures	accuracy are	speak at	accurate on	immediate,
	intonation, though	and sentence	sufficient to	length with	common, concrete,	appropriate,
	influenced by the first	patterns are	communicate	relative	and work-related	and informative.
	language or regional	consistently	effectively on	ease on	topics and mostly	Manages the
	variation, rarely	well	common,	familiar	accurate when the	speaker/listener
	interfere with ease of	controlled.	concrete, and	topics but	speaker is	relationship
	understanding	Complex	work-related	may not	confronted with a	effectively
		structures	topics.	vary speech	linguistic or	
		are	Paraphrases	flow as a	situational	
		attempted	consistently	stylistic	complication or an	
		but with	and	device. Can	unexpected turn of	
		errors which	successfully.	make use	events. Is able to	
		sometimes	Vocabulary is	of	comprehend a range	
		interfere with	sometimes	appropriate	of speech varieties	
		1	1		I	
		meaning.	idiomatic.	discourse	(dialect and/or	

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				markers or connectors	accent) or registers	
Operation al 4	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding.	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning.	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work-related topics.  Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting		Responses are usually immediate, appropriate, and informative Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstand ings by checking, confirming, or clarifying.
Pre- operation al 3	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding		Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work-related topics, but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary		intelligible for an international community of users. May fail to understand a linguistic or	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events

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Elementa	Pronunciation,	Shows only	Limited	Can produce very	Comprehension is	Response time
ry	stress,	limited control of a	vocabulary range	short, isolated,	limited to isolated,	is slow and often
2	rhythm, and	fewsimple	consisting only of	memorized	memorized phrases	inappropriate.
	intonation are	memorized	isolated	utterances	when they are	Interaction is
	heavily influenced	grammatical	words and	with	carefully and slowly	limited to simple
	by the first language	structures and	memorized phrases	frequent pausing	articulated.	routine exchanges.
	or regional variation	sentence patterns		and a distracting		_
	and usually interfere			use of fillers to		
	with ease of			search for		
	understanding.			expressions		
				and to articulate		
				less familiar		
				words.		
Pre-	Performs at a level	Performs at a	Performs at a	Performs at	Performs at a level	Performs at a
elementar	below the	level below the	level below the	a level below the	below the Elementary	level below the
У	Elementary level	Elementary level.	Elementary level	Elementary level	level	Elementary level
1						

#### Note.

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<sup>—</sup> The Operational Level (Level 4) is the minimum required proficiency level for radiotelephony communication. Levels 1 through 3 describe Pre-elementary, Elementary, and Preoperational levels of language proficiency, respectively, all of which describe a level of proficiency below the ICAO language proficiency requirement. Levels 5 and 6 describe Extended and Expert levels, at levels of proficiency more advanced than the minimum required Standard. As a whole, the scale will serve as benchmarks for training and testing, and in assisting cru1didates to attain the ICAO Operational Level (Level 4).