

## PART 3 – AVIATION TRAINING ORGANISATIONS

## 3.1 GENERAL

### 3.1.1 General

#### 3.1.1.1 APPLICABILITY

Part 3 prescribes the requirements for certifying and administering Aviation Training Organisations (ATO).

#### 3.1.1.2 DEFINITIONS

(a) For the purpose of Part 3, the following definitions shall apply—

- (1) **Accountable manager (training).** The manager who has corporate authority for ensuring that all training can be financed and carried out to the standard required by the SSCA. The accountable manager may delegate, in writing, to another person in the organisation to become the accountable manager when authorised by the SSCA.
- (2) **Advanced flight training device.** A flight training device that has a cockpit that accurately replicates a specific make, model, and type aircraft cockpit, and handling characteristics that accurately model the aircraft handling characteristics.
- (3) **AME Course —** A training course for AME maintenance ratings .
- (4) **Flight Training Equipment.** Flight simulators, flight training devices, and aircraft.
- (5) **Line-Operational Simulation.** Simulation conducted using operational-oriented flight scenarios that accurately replicate interaction among flightcrew members and between flightcrew members and dispatch facilities, other crewmembers, air traffic control, and ground operations.
- (6) **Line Operational Flight Training (LOFT).** Training in a simulator with a complete crew using representative flight segments which contain normal, abnormal, and emergency procedures that may be expected in line operations.
- (7) **Level 1 Aviation Training Organisation (ATO).** A flight training facility which conducts all or substantially all of each flight training course using aircraft.
- (8) **Level 2 Aviation Training Organisation (ATO).** A flight training facility which conducts all or substantially all of each flight training course using simulation media which are qualified and approved by the SSCA.
- (9) **Satellite.** An ATO at a location other than primary location of the ATO.
- (10) **Speciality curriculum.** A set of courses that is designed to satisfy a requirement of the Civil Aviation Regulations and that is approved by the SSCA for use by a particular Level 2 ATO or satellite Level 2 ATO. The speciality curriculum includes training requirements unique to one or more Level 2 ATO clients.
- (11) **Training specifications.** A document issued to a certified Aviation Training Organisation by the SSCA that prescribes that organisation's training, checking, and testing authorisations and limitations, and specifies training program requirements.

#### 3.1.1.3 ACRONYMS

(a) The following acronyms are used in Part 3:

- (1) ATO – Aviation Training Organisation
- (2) AFM — Aircraft Flight Manual
- (3) AME – Aviation Maintenance Engineer (Part 2)
- (4) IFR – Instrument Flight Rules
- (5) NOTAM – Notice to Airmen

## 3.1.2 Certificate Requirements

### 3.1.2.1 CERTIFICATE REQUIRED

- (a) No person may operate an ATO without, or in violation of, an ATO certificate and training specifications issued under this part.
- (b) Except for an AOC holder training its own flight crews, no person may conduct training, testing, or checking in advanced flight training devices or flight simulators without, or in violation of, the certificate and training specifications required by this Part.
- (c) The SSCA will issue an applicant an ATO certificate and training specifications if the applicant shows that it meets the requirements of this Part.

### 3.1.2.2 APPLICATION FOR ISSUANCE OR AMENDMENT

- (a) An applicant for an ATO certificate and training specifications shall apply at least 120 calendar days before the beginning of any proposed training.
- (b) Each applicant for an ATO certificate and training specification shall provide to the SSCA that information shown in IS: 3.1.2.2.

*Implementing Standard: See IS: 3.1.2.2 for certificate information needed by the SSCA.*

- (c) An applicant for a certificate shall ensure that the facilities and equipment described in its application are—
  - (1) Available for inspection and evaluation prior to approval; and
  - (2) In place and operational at the location of the proposed Level 2 ATO prior to issuance of a certificate under this Subpart.
- (d) The SSCA will issue to an applicant who meets the requirements and is approved by the SSCA—
  - (1) An ATO certificate containing all business names included on the application under which the certificate holder may conduct operations and the address of each business office used by the certificate holder; and
  - (2) Training specifications, issued by the SSCA to the certificate holder, containing—
    - (i) Authorisation for the ATO to function as a Level 1 ATO and/or Level 2 ATO.
    - (ii) The type of training authorised, including approved courses;
    - (iii) The category, class, and type of aircraft that may be used for training, testing, and checking;
    - (iv) For each flight simulator or flight training device, the make, model, and series of aeroplane or the set of aeroplanes being simulated and the qualification level assigned, or the make, model, and series of rotorcraft, or set of rotorcraft being simulated and the qualification level assigned;
    - (v) For each flight simulator and flight training device subject to qualification evaluation by the SSCA, the identification number assigned by the SSCA;
    - (vi) The name and address of each satellite ATO, and the approved courses offered at each satellite ATO;
    - (vii) Authorised deviations or waivers from this Subpart ; and
    - (viii) Any other items the SSCA may require or allow.
- (e) The SSCA may deny, suspend, revoke, or terminate a certificate under this Subpart if the SSCA finds that the applicant or the certificate holder—
  - (1) Held an AOC or ATO certificate that was revoked, suspended, or terminated; or
  - (2) Employs or proposes to employ a person who—
    - (i) Was previously employed in a management or supervisory position by the holder of an AOC or ATO certificate that was revoked, suspended, or terminated;

- (ii) Exercised control over any certificate holder whose certificate has been revoked, suspended, or terminated; and
  - (iii) Contributed materially to the revocation, suspension, or termination of that certificate and who will be employed in a management or supervisory position, or who will be in control of or have a substantial ownership interest in the ATO.
- (3) Has provided incomplete, inaccurate, fraudulent, or false information for an ATO certificate.
- (f) At any time, the SSCA may amend an ATO certificate—
  - (1) On the SSCA's own initiative, under applicable Cambodia legislation; or
  - (2) Upon timely application by the certificate holder.
- (g) The certificate holder shall file an application to amend an ATO certificate at least 60 calendar days prior to the applicant's proposed effective amendment date unless a different filing period is approved by the SSCA.
- (h) The SSCA may issue an ATO certificate to an applicant—
  - (1) For an ATO inside or outside of Cambodia; and
  - (2) Whose business office or primary location, or both are located inside or outside Cambodia.

### 3.1.2.3 CURRICULUM AND PERSONNEL REQUIREMENTS

- (a) Each ATO shall adhere to its approved curriculum.
- (b) A certificate holder may not change its approved curriculum unless the change is approved by the SSCA in advance.
- (c) An applicant for an ATO certificate shall show that—
  - (1) For each proposed curriculum, the Level 2 ATO has, and shall maintain, a sufficient number of instructors who are qualified in accordance with Section 3.2.4 to perform the duties to which they are assigned;
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall meet the personnel requirements shown in Section 3.2.4.
  - (3) Each applicant for, and holder of, an ATO certificate with AME courses shall meet the personnel requirements shown in 3.4.2.5.
- (d) Each Level 2 ATO shall have designated, and shall maintain, a sufficient number of approved evaluators to provide required checks and tests to graduation candidates within 7 calendar days of training completion for any curriculum leading to airman licenses or ratings, or both;
  - (1) Each Level 2 ATO has, and shall maintain, a sufficient number of management personnel who are qualified and competent to perform required duties; and
  - (2) A management representative, and all personnel who are designated by the Level 2 ATO to conduct direct student training, are able to understand, read, write, and fluently speak the Khmer and /or English language.
- (e) The persons listed in this subsection may serve in more than one position for an ATO, provided that person is qualified for each position.

### 3.1.2.4 CONTENTS OF AN ATO CERTIFICATE

- (a) The ATO certificate will consist of two documents—
  - (1) A certificate for public display signed by the SSCA, and
  - (2) Training specifications containing the terms, conditions, and authorisations applicable to the ATO certificate.
- (b) The ATO certificate will contain—
  - (1) The name and location (main place of business) of the ATO;
  - (2) The date of issue and period of validity for each page issued;
  - (3) The authorised locations of operations; and

- (4) Training specifications for the following categories, as applicable:
  - (i) Pilot training.
  - (ii) Other crewman training.
  - (iii) Other airman training.
  - (iv) AME training.
  - (v) Other training.
- (5) Other authorisations, approvals and limitations issued by the SSCA in accordance with the standards which are applicable to the training conducted by the ATO.

#### 3.1.2.5 DURATION OF CERTIFICATE

- (a) Except as shown in paragraph (c), the SSCA will issue an ATO certificate which expires, unless surrendered, suspended, or revoked—
  - (1) On the last day of the 24th calendar month from the month the certificate was issued;
  - (2) Except as provided in paragraph (b), on the date that any change in ownership of the school occurs;
  - (3) On the date of any significant change in the school's facilities occurs; or
  - (4) Upon notice by the SSCA that the school has failed for more than 60 days to maintain the required facilities, aircraft, or personnel.
- (b) A change in the ownership of an ATO does not terminate that school's certificate if, within 30 days—
  - (1) The certificate holder makes application for an appropriate amendment to the certificate; and
  - (2) No significant change in the facilities, operating personnel, or approved training courses is involved.
- (c) If the SSCA suspends, revokes, or terminates a certificate issued under this Part, the holder of that certificate shall return the certificate to the SSCA within five working days after being notified that the certificate is suspended, revoked, or terminated.

#### 3.1.2.6 DEVIATIONS OR WAIVERS

- (a) The SSCA may issue deviations or waivers from any of the requirements of this Part.
- (b) An ATO requesting a deviation or waiver under this section shall provide the SSCA with information acceptable to the SSCA that shows—
  - (1) Justification for the deviation or waiver; and
  - (2) That the deviation or waiver will not adversely affect the quality of instruction or evaluation.

#### 3.1.2.7 ADVERTISING LIMITATIONS

- (a) The ATO may not:
  - (1) Make any statement relating to its ATO certification and training specifications that is false or designed to mislead any person contemplating enrolment in that ATO.
  - (2) Advertise that the ATO is certified unless it clearly differentiates between courses that have been approved under this Part and those that have not been approved under this Part.
- (b) An ATO whose certificate has been surrendered, suspended, revoked, or terminated shall promptly—
  - (1) Remove all indications, including signs, wherever located, that the ATO was certified by the SSCA; and
  - (2) Notify all advertising agents, and advertising media employed by the certificate holder to cease all advertising indicating that the ATO is certified by the SSCA.

### **3.1.3 Location and Facilities**

#### **3.1.3.1 FACILITIES, EQUIPMENT, AND MATERIAL**

- (a) Each certificate holder shall provide facilities, equipment, and material equal to the standards currently required for the issue of the certificate and rating that it holds.
- (b) A certificate holder may not make a substantial change in facilities, equipment, or material that have been approved for a particular curriculum, unless that change is approved by the SSCA in advance.
- (c) A certificate holder with approved AME courses may not make any change in the ATO's location unless the change is approved by the SSCA in advance. If the certificate holder desires to change the location of the ATO, the certificate holder shall notify the SSCA, in writing, at least 30 days before the date of the relocation. The SSCA may prescribe the conditions under which the ATO may operate while it is changing its location or housing facilities. If the certificate holder changes the location of the ATO without notification, the certificate shall be revoked.
- (d) An applicant for, or holder of, a certificate issued under this Part shall establish and maintain a principal business office that is physically located at the address shown on its certificate.
- (e) The principal business office may not be shared with, or used by, another person who holds an ATO certificate.
- (f) An applicant for, or holder of, a certificate issued under this Part shall ensure that—
  - (1) Each room, training booth, or other space used for instructional purposes is heated, lighted, and ventilated to conform to local building, sanitation, and health codes; and
  - (2) The facilities used for instruction are not routinely subject to significant distractions caused by flight operations and maintenance operations at the airport.
- (g) Each certificate holder shall maintain the records required by this Part in facilities adequate for that purpose.
- (h) An applicant for, or holder of, an ATO certificate with approved AME courses shall have and maintain the following instructional equipment as is appropriate to the rating sought:
  - (1) Various kinds of airframe structures, airframe systems and components, powerplants, and powerplant systems and components (including propellers), of a quantity and type suitable to complete the practical projects required by its approved curricula.
  - (2) At least one aircraft of a type acceptable to the SSCA.
  - (3) The equipment required by paragraph (h) need not be in an airworthy condition, and if damaged prior to use by the ATO, shall have been repaired enough for complete assembly.
- (i) An applicant for, or holder of, an ATO certificate with an AME rating shall have airframes, powerplants, propellers, appliances, and components thereof, to be used for instruction and from which students will gain practical working experience, and shall insure that the airframes, powerplants, propellers, appliances, and components thereof be sufficiently diversified as to show the different methods of construction, assembly, inspection, and operation when installed in an aircraft for use.
- (j) Each applicant for, or holder of, an ATO certificate with an AME rating shall ensure that it maintains a sufficient number of units of the material described in paragraph (h)(3) so that no more than eight students will work on any one unit at one time.
- (k) Each applicant for, or holder of, an ATO certificate with an AME rating using an aircraft for instructional purposes that does not have retractable landing gear and wing flaps, shall provide training aids, or operational mock-ups of the retractable landing gear and wing flaps which are acceptable to the SSCA.
- (l) An applicant for an ATO certificate with an AME rating, or and applicant seeking an additional AME rating, shall have at least the facilities, equipment, and materials appropriate to the rating sought.
- (m) An applicant for, or holder of, an ATO certificate with an AME rating shall maintain, on the premises and under the full control of the ATO, an adequate supply of material, special tools, and shop equipment

used in constructing and maintaining aircraft as is appropriate to the approved curriculum of the ATO, in order to assure that each student will be properly instructed.

- (n) An applicant for, or holder of, an ATO certificate with an AME rating shall insure that the special tools and shop equipment required by paragraph (h) be in satisfactory working condition for instructional and practice purposes.

*Implementing Standard: See IS: 3.1.3.1 for specific requirements for facilities for AME courses.*

### 3.1.3.2 FLIGHT TRAINING FACILITIES, EQUIPMENT, AND COURSEWARE

- (a) An applicant for, or holder of, a Level 2 ATO shall have available exclusively, for adequate periods of time and at a location approved by the SSCA, adequate flight training equipment and courseware, including at least one flight simulator or advanced flight training device.
- (b) An applicant for, or holder of, an ATO certificate that plans to conduct pilot flight training shall show that it has continuous use of a briefing area located at each airport at which training flights originate that is—
  - (1) Adequate to shelter students waiting to engage in their training flights;
  - (2) Arranged and equipped for the conduct of pilot briefings; and
  - (3) For an ATO with an instrument rating course or commercial pilot course, equipped with adequate communication to sources of weather and flight planning information.

### 3.1.3.3 SATELLITE ATOS

- (a) The holder of an ATO certificate may conduct training in accordance with a training program approved by the SSCA at a satellite ATO if—
  - (1) The facilities, equipment, personnel, and course content of the satellite ATO meet the applicable requirements;
  - (2) The instructors and evaluators at the satellite ATO are under the direct supervision of management personnel of the principal ATO;
  - (3) The certificate holder notifies the SSCA in writing that a particular satellite ATO is to begin operations at least 60 days prior to proposed commencement of operations at that satellite ATO; and
  - (4) The certificate holder's training specifications reflect the name and address of the satellite ATO and the approved courses offered at the satellite ATO.
- (b) The SSCA will issue training specifications which prescribe the operations required and authorised at each satellite ATO.

### 3.1.3.4 CHANGES REQUIRING NOTICE TO THE SSCA

- (a) Each ATO shall notify the SSCA within 30 days of any of the following changes:
  - (1) The accountable manager.
  - (2) The instructional and evaluation staff.
  - (3) The housing, training facilities and equipment, procedures, curricula, and work scope that could affect the approval.
- (b) The SSCA may prescribe the conditions under which the ATO may operate during such changes unless the SSCA determines that the approval should be suspended.

### 3.1.3.5 INSPECTION

- (a) The SSCA shall, at any time, inspect an ATO holder on the ATO holder's premises to determine the ATO's compliance with this Part.
- (b) Inspections will normally be repeated on a twelve month basis, which may be extended to a twenty-four month basis if, in the opinion of the SSCA, the holder continues to meet the requirements under which it was originally certificated.

- (c) After an inspection is made, the certificate holder will be notified, in writing, of any deficiencies found during the inspection.

### **3.1.4 Administrative**

#### **3.1.4.1 RECORD KEEPING**

- (a) Each ATO shall maintain a record for each trainee that contains—
- (1) The name of the trainee;
  - (2) A copy of the trainee's license, if any, and medical certificate, if required;
  - (3) The name of the course and the make and model of flight training equipment used, if applicable;
  - (4) The trainee's prerequisite experience and course time completed;
  - (5) The date the student graduated, terminated training, or transferred to another school;
  - (6) The trainee's performance on each lesson and the name of the instructor providing instruction;
  - (7) A current progress record for each trainee showing the practical projects or laboratory work completed or to be completed for each subject;
  - (8) The date and result of each knowledge test and end-of-course practical test and the name of the evaluator conducting the test(s); and
  - (9) The number of hours of additional training that was accomplished after any unsatisfactory practical test.
- (b) The SSCA will not consider a student's logbook as sufficient for the records required by paragraph (a).
- (c) Each ATO shall maintain a record for each instructor or evaluator designated to instruct a course approved in accordance with this Part that indicates that the instructor or evaluator has complied with the applicable requirements of this Part.
- (d) Each ATO shall—
- (1) Maintain the records required by paragraph (a) for at least 2 year following the completion of training, testing or checking;
  - (2) Maintain the qualification records required by paragraph (c) while the instructor or evaluator is in the employ of the certificate holder and for 2 year thereafter; and
  - (3) Maintain the recurrent demonstration of proficiency records required by paragraph (c) for at least 2 years.
- (e) Each ATO shall provide the records required by this section to the SSCA upon request, within a reasonable time, and shall store and maintain the records required by—
- (1) Paragraph (b) at the ATO, or satellite ATO where the training, testing, or checking, if appropriate, occurred, or at another location acceptable to the SSCA; and
  - (2) Paragraph (c) at the ATO or satellite ATO where the instructor or evaluator is primarily employed, or at another location acceptable to the SSCA.
- (f) Each ATO shall provide to a trainee, upon request and at a reasonable time, a copy of his or her training records.
- (g) Each ATO shall keep a current record of each student enrolled, showing, if applicable—
- (1) The instruction credited under 3.4.2.6, if any; and
  - (2) The authenticated transcript of grades from a school previously attended.

#### **3.1.4.2 GRADUATION CERTIFICATES AND TRANSCRIPTS**

- (a) Each ATO shall issue upon completion of training a graduation certificate to each student who completes its approved course of training.
- (b) Each ATO shall include in each graduation certificate—
- (1) The name of the school and the certificate number of the ATO;
  - (2) The name of the graduate to whom it was issued;

- (3) The approved curriculum title;
  - (4) The date of graduation;
  - (5) A statement that the student has satisfactorily completed each required stage of the approved course of training including the tests for those stages;
  - (6) An authentication by an official of the school; and
  - (7) A statement showing the cross-country flight training that the student received in the course of training, if applicable.
- (c) An ATO may not issue a graduation certificate to a student, or recommend a student for a license or rating, unless the student has—
- (1) Completed the training specified in the approved course of training; and
  - (2) Passed the required final tests.

### 3.1.4.3 TRANSCRIPTS

- (a) Upon request, each ATO shall provide a transcript of a student's grades to each student who is graduated from that ATO or who leaves it before being graduated.
- (b) Each ATO shall include in the transcript required by paragraph (a)—
  - (1) The curriculum in which the student was enrolled;
  - (2) Whether the student satisfactorily completed that curriculum;
  - (3) The final grades the student received; and
  - (4) An authentication by an official of the school.

## 3.2 PILOT TRAINING

### 3.2.1 *General*

#### 3.2.1.1 PILOT TRAINING COURSES

- (a) The SSCA will issue certificates and training specifications for two levels of ATO which conduct pilot flight training courses, as shown:
  - (i) A Level 1 ATO is one which conducts the preponderance of each flight training course using an actual aircraft.
  - (ii) A Level 2 ATO is one which conducts all or substantially all of each flight training course using simulation media which are qualified and approved by the SSCA.
- (b) The SSCA may approve the following courses of instruction to an applicant for, or holder of a Level 1 ATO certificate, provided the applicant meets the requirements of 3.1.2.2:
  - (1) Licensing and rating courses.
    - (i) Private pilot course. (IS: 3.2.1.1 Appendix A)
    - (ii) Commercial pilot course. (IS: 3.2.1.1 Appendix B)
    - (iii) Instrument rating course. (IS: 3.2.1.1 Appendix C)
    - (iv) Airline transport pilot course. (IS: 3.2.1.1 Appendix D)
    - (v) Flight instructor course. (IS: 3.2.1.1 Appendix E)
    - (vi) Flight instructor instrument course. (IS: 3.2.1.1 Appendix F)
    - (vii) Ground instructor course. (IS: 3.2.1.1 Appendix G)
    - (viii) Additional aircraft category or class rating course. (IS: 3.2.1.1 Appendix H)
    - (ix) Aircraft type rating course. (IS: 3.2.1.1 Appendix I)
  - (2) Special preparation courses. (IS: 3.2.1.1 Appendix J)
    - (i) Pilot refresher course.
    - (ii) Flight instructor refresher course.
    - (iii) Ground instructor refresher course.

- (iv) Agricultural aircraft operations course.
- (v) Rotorcraft external-load operations course.
- (vi) Special operations course.
- (vii) Test pilot course.
- (3) Pilot ground school course. (IS: 3.2.1.1 Appendix K)
- (c) The SSCA may approve the following courses of instruction to an applicant for, or holder of a Level 2 ATO certificate, provided the applicant meets the requirements of 3.1.2.2:
  - (1) Any course for licensing or for any rating for which the applicant can show an effective curriculum and for which the SSCA has qualified the simulation media.

### 3.2.1.2 REQUIREMENTS FOR A LEVEL 1 ATO CERTIFICATE

- (a) The SSCA will issue to an applicant a Level 1 ATO certificate with associated ratings if the applicant—
  - (1) Held a provisional Level 1 ATO certificate issued under this Part for at least 24 calendar months preceding the month of application;
  - (2) Meets the applicable requirements of this Subpart for the ratings sought; and
  - (3) Within 24 calendar months preceding the month of application, has completed the training, and had at least 80 percent pass mark on the first attempt—
    - (i) A knowledge or a practical test for a pilot license, flight instructor license, ground instructor license, or an additional rating; and
    - (ii) Any combination of tests specified in paragraphs (c)(1) and (2).

*Implementing Standard: See IS: 3.2.1.1 Appendix J: Special Preparation Courses for an end-of-course test for a special training course.*

### 3.2.1.3 PROVISIONAL LEVEL 1 ATO CERTIFICATE

The SSCA may issue to an applicant that meets the applicable requirements of this Subpart, but does not meet the recent training activity requirements of 3.2.1.1, a provisional Level 1 ATO certificate with ratings.

### 3.2.1.4 RENEWAL OF CERTIFICATES AND RATINGS

- (a) Level 1 ATO.
  - (1) A Level 1 ATO may apply for renewal of its certificate and ratings within 30 days preceding the month the Level 1 ATO's certificate expires, provided the ATO meets the requirements prescribed in paragraph (a)(2).
  - (2) The SSCA will renew for an additional 24 calendar months a Level 1 ATO certificate and ratings if the SSCA determines the ATO's personnel, aircraft, facility and airport, approved training courses, training records, and recent training ability and quality meet the requirements.
  - (3) A Level 1 ATO that does not meet the renewal requirements in paragraph (a)(2), may apply for a provisional Level 1 ATO certificate if the school meets the requirements of 3.2.1.3.
- (b) Provisional Level 1 ATO.
  - (1) Except as provided in paragraph (b)(3), the SSCA will not renew a provisional Level 1 ATO certificate or the ratings on that certificate.
  - (2) A provisional Level 1 ATO may apply for a Level 1 ATO certificate and associated ratings provided that ATO meets the requirements of this Subpart.
  - (3) A former provisional Level 1 ATO may apply for another provisional Level 1 ATO certificate, provided 180 days have elapsed since its last provisional Level 1 ATO certificate expired.

## 3.2.2 Flight Training Requirements

### 3.2.2.1 APPLICABILITY

- (a) This section prescribes—

- (1) The personnel and aircraft requirements for an ATO certificate; and
- (2) The facilities that an ATO shall have available on a continuous basis.

#### 3.2.2.2 AIRPORT REQUIREMENTS

Each applicant for, and holder of, a Level 1 ATO certificate shall show that it has continuous use of each airport at which training flights originate, and that the airport has an adequate runway and the necessary equipment.

*Implementing Standard: See IS: 3.2.2.2 for specific runway and equipment requirements.*

#### 3.2.2.3 AIRCRAFT REQUIREMENTS

- (a) An applicant for, or holder of, an ATO certificate shall ensure, for each aircraft used for flight instruction and solo flights—
  - (1) Except for flight instruction and solo flights in a curriculum for agricultural aircraft operations, external load operations, and similar aerial work operations, that the aircraft has a Cambodia standard airworthiness certificate or a foreign equivalent of a Cambodia standard airworthiness certificate, acceptable to the SSCA;
  - (2) That each aircraft is maintained and inspected in accordance with the requirements of Part 4; and
  - (3) That each aircraft is equipped as provided in the training specifications for the approved course for which it is used.
- (b) Except as provided in paragraph (c), an applicant for, or holder of, an ATO certificate shall ensure that each aircraft used for flight instruction is at least a two-seat aircraft with engine power controls and flight controls that are easily reached and that operate in a conventional manner from both pilot stations.
- (c) A certificate holder may use aeroplanes with controls such as nose-wheel steering, switches, fuel selectors, and engine air flow controls that are not easily reached and operated in a conventional manner by both pilots for flight instruction if the certificate holder determines that the flight instruction can be conducted in a safe manner considering the location of controls and their non-conventional operation, or both.
- (d) Each certificate holder shall ensure that each aircraft used in a course involving IFR operations is equipped and maintained for IFR operations.
- (e) The Authority may approve aircraft with a restricted airworthiness certificate for use in the agricultural aircraft operations, external-load operations, test pilot, and special operations courses listed in 3.1.3.3(a), if its use for training is not prohibited by the aircraft's operating limitations.

#### 3.2.2.4 FLIGHT SIMULATORS AND FLIGHT TRAINING DEVICES

- (a) An applicant for, or holder of, an ATO certificate shall show that each flight simulator and flight training device used for training, testing, and checking will be or is specifically qualified and approved by the Authority for—
  - (1) Each manoeuvre and procedure for the make, model, and series of aircraft, set of aircraft, or aircraft type simulated, as applicable; and
  - (2) Each curriculum or training course in which the flight simulator or flight training device is used, if that curriculum or course is used to satisfy any requirement of these regulations.
- (b) An applicant for, and holder of, a Level 2 ATO certificate shall show that each of its flight simulators and flight training devices—
  - (1) Represent the aircraft for which the course is approved including the cockpit configuration;
  - (2) Is used only for training given by an authorised instructor; and
  - (3) Is not used for more than 25 percent of the total flight training hour requirements (75% has to be on live aircraft).

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- (c) Each certificate holder shall ensure, prior to use, that the approval required by this section includes—
    - (1) The aircraft make and model;
    - (2) If applicable, the particular variation within type for which the training, testing, or checking is being conducted; and
    - (3) The particular manoeuvre, procedure, or crewmember function to be performed.
  - (d) Each certificate holder shall ensure that each flight simulator or flight training device used by an ATO is—
    - (1) Maintained to ensure the reliability of the performances, functions, and all other characteristics that were required for qualification;
    - (2) Modified to conform with any modification to the aircraft being simulated if the modification results in changes to performance, function, or other characteristics required for qualification;
    - (3) The same cockpit configuration as the aircraft being simulated;
    - (4) Given a functional preflight check each day before being used; and
    - (5) Provided with a discrepancy log in which the instructor or evaluator, at the end of each training session, enters each discrepancy.
  - (e) Unless otherwise authorised by the SSCA, each certificate holder shall ensure that each component on a flight simulator or flight training device used by an ATO is operative if the component is essential to, or involved in, the training, testing, or checking of airmen.
  - (f) The SSCA will not restrict ATO instructors or students to specific—
    - (1) Route segments during line-oriented flight training scenarios; or
    - (2) Visual data bases replicating a specific customer's bases of operation.
  - (g) An applicant for, or holder of, an ATO certificate may request evaluation, qualification, and continuing evaluation for qualification of flight simulators and flight training devices without—
    - (1) Holding an air carrier certificate; or
    - (2) Having a specific relationship to an air carrier certificate holder.

### ***3.2.3 Curriculum and Syllabus Requirements***

#### **3.2.3.1 APPLICABILITY**

This Section prescribes the curriculum and syllabus requirements for the issuance of an ATO certificate and training specifications for training, testing, and checking conducted to meet the requirements of Part 2.

#### **3.2.3.2 APPROVAL OF TRAINING PROGRAM**

- (a) Each applicant for, or holder of, an ATO certificate shall apply to the SSCA for training program approval.
- (b) Each applicant for training program approval shall indicate in the application—
  - (1) Which courses are part of the core curriculum and which courses are part of the speciality curriculum;
  - (2) Which requirements of Part 2 would be satisfied by the curriculum or curricula; and
  - (3) Which requirements of Part 2 would not be satisfied by the curriculum or curricula.
- (c) After a certificate holder begins operations under an approved training program, the SSCA may require the certificate holder to make revisions to that training program if the SSCA finds that the certificate holder is not meeting the provisions of its approved training program.
- (d) If the SSCA requires an ATO certificate holder to make revisions to an approved training program and the certificate holder does not make those required revisions within 30 calendar days, the SSCA may suspend, revoke, or terminate the Level 2 ATO certificate under the provisions of 3.1.2.2(e).

### 3.2.3.3 TRAINING PROGRAM CURRICULUM REQUIREMENTS

- (a) Each applicant shall ensure that each training program curriculum submitted to the SSCA for approval meets the applicable requirements and contains—
- (1) A syllabus for each proposed curriculum;
  - (2) Minimum aircraft and flight training equipment requirements for each proposed curriculum;
  - (3) Minimum instructor and evaluator qualifications for each proposed curriculum;
  - (4) A curriculum for initial training and continuing training of each instructor or evaluator employed to instruct in a proposed curriculum; and
  - (5) For each curriculum that provides for the issuance of a license or rating in fewer than the minimum hours prescribed by Part 2—
    - (i) A means of demonstrating the ability to accomplish such training in the reduced number of hours; and
    - (ii) A means of tracking student performance.

## 3.2.4 Personnel Requirements

### 3.2.4.1 APPLICABILITY

This section prescribes the personnel and flight training equipment requirements for a certificate holder that is training to meet the requirements of Part 2.

### 3.2.4.2 LEVEL 2 ATO INSTRUCTOR ELIGIBILITY REQUIREMENTS

- (a) A certificate holder may not employ a person as an instructor in a flight training course that is subject to approval by the SSCA unless that person—
- (1) Is at least 18 years of age;
  - (2) Is able to read, write, speak, and understand the English language;
  - (3) If instructing in an aircraft in flight, holds a flight instructor license;
  - (4) If instructing in simulated flight, satisfies the requirements of paragraph (c); and
  - (5) Meets at least one of the following requirements—
    - (i) Meets the aeronautical experience requirements for a commercial pilot license, excluding the required hours of instruction in preparation for the commercial pilot practical test;
    - (ii) If instructing in a flight simulator or flight training device that represents an aeroplane requiring a type rating or if instructing in a curriculum leading to the issuance of an airline transport pilot license, meets the aeronautical experience requirements for an airline transport pilot; or
    - (iii) Is employed as a flight simulator instructor or a flight training device instructor for an ATO providing instruction and testing to meet the requirements of Part 2 on *[insert date 30 days following adoption of this rule]*.
- (b) An ATO shall designate each instructor in writing for each approved course, prior to that person functioning as an instructor in that course.
- (c) Prior to initial designation, each flight and simulator flight instructor shall complete the requirements of IS: 3.2.4.2(a).

*Implementing Standard: See IS: 3.2.4.2 for specific training eligibility requirements.*

### 3.2.4.3 LEVEL 2 ATO INSTRUCTOR AND EVALUATOR PRIVILEGES AND LIMITATIONS

- (a) An ATO may allow an instructor to provide—
- (1) Instruction for each curriculum for which that instructor is qualified;
  - (2) Testing and checking for which that instructor is qualified; and
  - (3) Instruction, testing, and checking intended to satisfy the requirements of this Part.

- (b) An ATO whose instructor or evaluator is designated in accordance with the requirements to conduct training, testing, or checking in flight training equipment, may allow its instructor or evaluator to give endorsements required by Part 2 if that instructor or evaluator is authorised by the SSCA to instruct or evaluate in a curriculum that requires such endorsements.
- (c) An ATO may not allow an instructor to—
  - (1) Excluding briefings and debriefings, conduct more than 8 hours of instruction in any 24-consecutive-hour period, or more than 6 days or 40 hours in any 7 day period;
  - (2) Provide flight training equipment instruction unless that instructor meets the requirements of 3.2.4.4(a)(1) through (a)(4), and 3.2.4.4(b), as applicable; or
  - (3) Provide flight instruction in an aircraft unless that instructor—
    - (i) Meets the requirements of 3.2.4.4(a)(1), (a)(2), and (a)(5);
    - (ii) Holds a flight instructor license;
    - (iii) Holds pilot licenses and ratings applicable to the category, class, and type aircraft in which instructing;
    - (iv) If instructing or evaluating in an aircraft in flight while occupying a required crewmember seat, holds at least a valid second class medical certificate; and
    - (v) Meets the currency requirements of 8.10.1.33 and 8.10.1.37.

#### 3.2.4.4 LEVEL 2 ATO INSTRUCTOR TRAINING AND TESTING REQUIREMENTS

- (a) Except as provided in paragraph (c), prior to designation and every 12 calendar months beginning the first day of the month following an instructor's initial designation, a certificate holder shall ensure that each of its instructors meets the following requirements.
  - (1) Each flight instructor or simulator flight instructor shall satisfactorily demonstrate to an authorised evaluator knowledge of, and proficiency in, instructing in a representative segment of each curriculum for which that instructor is designated to instruct under Subpart 3.4.
  - (2) Each instructor shall satisfactorily complete an approved course of ground instruction in at least—
    - (i) The fundamental principles of the learning process;
    - (ii) Elements of effective teaching, instruction methods, and techniques;
    - (iii) Instructor duties, privileges, responsibilities, and limitations;
    - (iv) Training policies and procedures;
    - (v) Cockpit resource management and crew co-ordination; and
    - (vi) Evaluation.
  - (3) Each instructor who instructs in a flight simulator or flight training device shall satisfactorily complete an approved course of training in the operation of the flight simulator, and an approved course of ground instruction, applicable to the training courses the instructor is designated to instruct, which shall include—
    - (i) Proper operation of flight simulator and flight training device controls and systems;
    - (ii) Proper operation of environmental and fault panels;
    - (iii) Limitations of simulation; and
    - (iv) Minimum equipment requirements for each curriculum.
  - (4) Each flight instructor who provides training in an aircraft shall satisfactorily complete an approved course of ground instruction and flight training in an aircraft, flight simulator, or flight training device, which shall include—
    - (i) Performance and analysis of flight training procedures and manoeuvres applicable to the training courses that the instructor is designated to instruct;
    - (ii) Technical subjects covering aircraft subsystems and operating rules applicable to the training courses that the instructor is designated to instruct;
    - (iii) Emergency operations;
    - (iv) Emergency situations likely to develop during training; and

- (v) Appropriate safety measures.
- (5) Each instructor who instructs in flight training equipment shall pass a knowledge test and annual proficiency check—
  - (i) In the flight training equipment in which the instructor will be instructing; and
  - (ii) On the subject matter and manoeuvres of a representative segment of each curriculum for which the instructor will be instructing.
- (b) In addition to the requirements of paragraphs (a)(1) through (a)(5), each certificate holder shall ensure that each instructor who instructs in a flight simulator that the SSCA has approved for all training and all testing for the airline transport pilot licensing test, aircraft type rating test, or both, has met at least one of the requirements of IS: 3.2.4.2 (b).
- (c) The SSCA will consider completion of a curriculum required by paragraph (a) or (b) taken in the calendar month before or after the month in which it is due as taken in the month in which it was due for the purpose of computing when the next training is due.
- (d) The SSCA may give credit for the requirements of paragraph (a) or (b) to an instructor who has satisfactorily completed an instructor training course for a Part 9 certificate holder if the SSCA finds such a course equivalent to the requirements of paragraph (a) or (b).

*Implementing Standard: See IS: 3.2.4.2 specific testing and training requirements for a Level 2 ATO instructor.*

#### 3.2.4.5 LEVEL 2 ATO EVALUATOR REQUIREMENTS

- (a) Except as provided by paragraph (d), each ATO shall ensure that each person authorised as an evaluator—
  - (1) Is approved by the SSCA;
  - (2) Is in compliance with 3.2.4.2, 3.2.4.3, 3.2.4.4;
  - (3) Prior to designation, satisfactorily completes a curriculum within 12 calendar months that includes the following—
    - (i) Evaluator duties, functions, and responsibilities;
    - (ii) Methods, procedures, and techniques for conducting required tests and checks;
    - (iii) Evaluation of pilot performance; and
    - (iv) Management of unsatisfactory tests and subsequent corrective action; and
  - (4) If evaluating in-flight training equipment, satisfactorily pass a knowledge test and annual proficiency check in a flight simulator or aircraft in which the evaluator will be evaluating.
- (b) For the purpose of computing when evaluator training is due, the SSCA will consider that an evaluator who satisfactorily completes a curriculum required by paragraph (a)(3) in the calendar month before or the calendar month after the month in which it was due, to have taken it in the month it was due.
- (c) The SSCA may give credit for the requirements of paragraph (a)(3) to an evaluator who has satisfactorily completed an evaluator training course for an AOC holder if the SSCA finds such a course equivalent to the requirements of paragraph (a)(3).

#### 3.2.4.6 LEVEL 1 ATO PERSONNEL

- (a) Each applicant for, and holder of, a Level 1 ATO certificate shall have adequate personnel, including licensed flight instructors, licensed ground instructors, and holders of a commercial pilot license with a lighter-than-air rating, if applicable, and a chief instructor who are qualified and competent to perform the duties assigned in each approved training course.
- (b) Each instructor for ground or flight training shall hold a flight instructor license, ground instructor license, or commercial pilot license with a lighter-than-air rating, as appropriate, with ratings for the approved training course and any aircraft used in that course.

### 3.2.4.7 LEVEL 1 ATO CHIEF INSTRUCTOR QUALIFICATIONS

To be designated as a chief instructor for a Level 1 ATO course, a person shall meet one or more of the requirements of **Error! Reference source not found.**, as applicable.

*Implementing Standard: See IS: 3.2.4.7***Error! Reference source not found.** for chief instructor qualification requirements.

### 3.2.4.8 LEVEL 1 ATO ASSISTANT CHIEF INSTRUCTOR QUALIFICATIONS

To be designated as an assistant chief instructor for a Level 1 ATO course, a person shall meet the requirements of IS: 3.2.4.8.

*Implementing Standard: See IS: 3.2.4.8 for assistant chief instructor qualification requirements.*

### 3.2.4.9 LEVEL 1 ATO CHECK INSTRUCTOR QUALIFICATIONS

To be designated as a check instructor for a Level 1 ATO conducting student stage checks, end-of-course tests, and instructor proficiency checks under this Part, a person shall meet the applicable requirements of IS: 3.2.4.9.

*Implementing Standard: See of IS: 3.2.4.9 for check instructor qualification requirements.*

### 3.2.4.10 LEVEL 1 ATO INSTRUCTOR FLIGHT TRAINING

- (a) No person other than a licensed flight instructor or commercial pilot with a lighter-than-air rating who has the ratings and the minimum qualifications specified in the approved training course outline may give a student flight training under an approved course of training.
- (b) No ATO may authorise a student pilot to start a solo flight until the flight has been approved by an authorised instructor who is present at the origination.
- (c) Each chief instructor and assistant chief instructor assigned to a training course shall complete, at least once every 12 calendar months, an approved syllabus of training consisting of ground or flight training, or both, or an approved flight instructor refresher course.
- (d) Each licensed flight instructor or commercial pilot with a lighter-than-air rating who is assigned to a flight training course shall satisfactorily complete the following tasks, which shall be administered by the school's chief instructor, assistant chief instructor, or check instructor—
  - (1) Prior to receiving authorisation to train students in a flight training course, accomplish—
    - (i) A review of and a briefing on the objectives and standards of that training course; and
    - (ii) An initial proficiency check in each make and model of aircraft used in that training course in which that person provides training.
  - (2) Every (6 months or 12 months) calendar months after the month in which the person last complied with paragraph (d)(1)(ii), accomplish a proficiency check in one of the aircraft the person trains students.

### 3.2.4.11 LEVEL 1 ATO INSTRUCTOR GROUND TRAINING

- (a) Except as provided in paragraph (b), each instructor who is assigned to a ground training course, shall hold a flight or ground instructor license, or a commercial pilot license with a lighter-than-air rating with the appropriate rating for that course of training.
- (b) A person who does not meet the requirements of paragraph (a) may be assigned ground training duties in a ground training course, if—
  - (1) The chief instructor who is assigned to that ground training course finds the person qualified to give that training; and
  - (2) The instructor serves under the supervision of the chief instructor or the assistant chief instructor who is present at the facility when the training is given.

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- (c) An instructor may not be used in a ground training course until that instructor has been briefed in regard to the objectives and standards of that course by the chief instructor, assistant chief instructor, or check instructor.

#### 3.2.4.12 LEVEL 1 ATO CHIEF INSTRUCTOR RESPONSIBILITIES

- (a) During training, each Level 1 ATO shall ensure that the chief instructor or an assistant chief instructor is available—
  - (1) At the Level 1 ATO, or
  - (2) By telephone, radio, or other electronic means.

### 3.2.5 Operating Rules

#### 3.2.5.1 APPLICABILITY

This section prescribes the operating rules applicable to a certified ATO and operating a course or training program curriculum approved in accordance with this Part.

#### 3.2.5.2 PRIVILEGES

- (a) A Level 2 ATO certificate holder may allow flight simulator instructors and evaluators to meet currency requirements through the use of a flight simulator or flight training device if that flight simulator or flight training device is used in a course approved in accordance with Section 3.2.5.
- (b) The holder of an ATO certificate may advertise and conduct approved pilot training courses in accordance with the certificate and any ratings that it holds.
- (c) A Level 1 ATO may credit towards the curriculum requirements of a course previous training and pilot experience and knowledge, provided the student meets the requirements of IS: 3.2.5.2.

*Implementing Standard: See IS: 3.2.5.2 for specific transfer credit requirements.*

#### 3.2.5.3 LIMITATIONS: ATO

- (a) Each ATO shall—
  - (1) Ensure that a flight simulator or flight training device freeze, slow motion, or repositioning feature is not used during testing or checking; and
  - (2) Ensure that a repositioning feature is used during line operational simulation for evaluation and line-oriented flight training only to advance along a flight route to the point where the descent and approach phase of the flight begins.
- (b) When practical testing, flight checking, or line operational simulation is being conducted, the Level 2 ATO shall ensure that one of the following occupies each supporting crewmember position—
  - (1) A crewmember qualified as SIC in the aircraft category and class, provided that no flight instructor who is giving instruction may occupy a crewmember position; and
  - (2) A student, provided that he is a student from the same course;
- (c) Maintenance of Personnel, Facilities, and Equipment: The holder of an ATO certificate may not provide training to a student who is enrolled in an approved course of training unless each airport, all flight training equipment, and each authorised instructor and evaluator continuously meets the requirements and the standards specified in the certificate holder's training specifications.
- (d) A certified ATO may not require any student to attend classes of instruction more than 8 hours in any day or more than 6 days or 40 hours in any consecutive 7-day period.

#### 3.2.5.4 LIMITATIONS: ENROLLED STUDENTS IN ACTUAL FLIGHT CURRICULA

- (a) Each student pilot shall carry the following items on each aircraft used for flight training and solo flights—
  - (1) A pre-takeoff and pre-landing checklist; and

- (2) The operator's handbook or AFM for the aircraft if one is furnished by the manufacturer or copies of the handbook to each student using the aircraft.

### 3.2.5.5 LEVEL 1 ATO ENROLMENT DOCUMENTS

- (a) The holder of a Level 1 ATO certificate shall furnish each student, upon enrolment, with a copy of the following.
  - (1) A certificate of enrolment containing —
    - (i) The name of the course in which the student is enrolled; and
    - (ii) The date of that enrolment.
  - (2) A copy of the student's training syllabus.
  - (3) For pilot students, a copy of the safety procedures and practices that describe—
    - (i) The use of facilities and the operation of its aircraft;
    - (ii) The weather minimums required by the school for dual and solo flights;
    - (iii) The procedures for starting and taxiing aircraft on the ramp;
    - (iv) Fire precautions and procedures;
    - (v) Redispatch procedures after unprogrammed landings, on and off airports;
    - (vi) Aircraft discrepancies and write-offs;
    - (vii) Securing of aircraft when not in use;
    - (viii) Fuel reserves necessary for local and cross-country flights;
    - (ix) Avoidance of other aircraft in flight and on the ground;
    - (x) Minimum altitude limitations and simulated emergency landing instructions; and
    - (xi) A description of and instructions regarding the use of assigned practice areas.
  - (4) The holder of a Level 1 ATO certificate shall maintain a monthly listing of persons enrolled in each training course offered by the school.
- (b) Each Level 1 ATO applicant shall ensure that each training course for which it seeks approval meets the minimum curriculum requirements.

*Implementing Standard: See IS: 3.2.5.5 for Level 1 training course contents.*

## 3.3 OTHER CREWMEMBERS

### 3.3.1.1 SPECIAL CURRICULA

An applicant for, or holder of, an ATO certificate may apply for approval to conduct a special course of airman training for which a curriculum is not prescribed in the implementing standards, if the applicant shows that the training course contains features that could achieve a level of pilot proficiency equivalent to that achieved by a training course prescribed in the requirements of Part 2, as applicable.

## 3.4 AIRMEN OTHER THAN FLIGHTCREW

### 3.4.1 Other than AME Courses

#### 3.4.1.1 APPLICABILITY

- (a) This Subpart provides an alternative means to accomplish flight training required by Parts 2 or 9.
- (b) Certification under this Subpart is not required for training that is—
  - (1) Approved under the provisions of Part 9; and
  - (2) Conducted under Part 2, unless that Part requires certification under this Part.

### 3.4.1.2 OTHER TRAINING COURSES

- (a) The SSCA may approve the following courses of instruction to an applicant for, or holder of an ATO certificate, provided the applicant meets the applicable requirements of 3.1.2.2(d):
- (1) Flight operations officer.
  - (2) Flight engineer.
  - (3) Flight attendants.
  - (4) Material handlers.
  - (5) Ground servicing personnel.
  - (6) Security personnel.
  - (7) Others approved by the SSCA.
- (b) The SSCA will approve a course for which the application is made if the ATO, or ATO applicant, shows that the course contains a curriculum that will achieve a level of competency equal to, or greater than, that required by the applicable Parts of these regulations.

*Implementing Standard: See IS: 3.2.1.1, Appendix M, for Flight Engineer Training Course Requirements.*

### 3.4.1.3 APPLICATION, DURATION, AND RENEWAL

- (a) *Application.* An ATO proposing to train flight operations officers shall submit an application containing—
- (1) Instruction in the areas of knowledge and topics;
  - (2) A minimum of 200 total course hours; and
  - (3) An outline of the major topics and subtopics to be covered and the number of hours proposed for each.
- (b) *Duration and renewal.*
- (1) The authority to operate an aircraft flight operations officer licensing course expires 24 months after the last day of the month of issuance of the authority.
  - (2) The holder of an approval for an aircraft flight operations officer licensing course shall apply to the SSCA for renewal within 30 days prior to the expiration date.
- (c) *Instruction.*
- (1) The holder of a course approval shall ensure that it maintains an adequate number of instructors who maintain a 24 calendar-month average of at least 80 percent of the graduates of that school passing the practical test on the first attempt.

*Implementing Standard: See IS: 3.2.5.5 for course approval requirements.*

## 3.4.2 AME Training Courses

### 3.4.2.1 APPLICABILITY

- (a) This Subpart prescribes the requirements for—
- (1) Issuing ATO certificates and ratings;
  - (2) Conducting basic aircraft maintenance training courses;
  - (3) Conducting licensing courses and associated ratings for AMEs; and
  - (4) Instructing the general operating rules for the holders of AME licenses and ratings.

### 3.4.2.2 AME TRAINING COURSES

- (a) The SSCA may approve the following courses of instruction to an applicant for, or holder of an ATO certificate, provided the applicant meets the requirements of 3.1.2.2
- (1) AME—
    - (i) Airframe rating;

- (ii) Powerplant rating; and
- (iii) Airframe and Powerplant rating

### 3.4.2.3 GENERAL CURRICULUM REQUIREMENTS

- (a) Each ATO shall have an approved curriculum that is designed to qualify its students to perform the duties of an AME for a particular rating or ratings.
- (b) The curriculum shall offer at least the following number of hours of instruction shown, and the instruction unit hour shall be not less than 50 minutes in length.
  - (1) Airframe – 1,150 hours (400 general plus 750 airframe).
  - (2) Powerplant – 1,150 hours (400 general and 750 powerplant).
  - (3) Combined airframe and powerplant – 1,900 hours (400 general plus 750 airframe and 750 powerplant).
- (c) The curriculum shall cover the subjects and items prescribed in IS: 3.2.1.1, Appendix L.
- (d) Each ATO shall teach each subject to at least the indicated level of proficiency defined in the applicable appendix to IS: 3.2.1.1, Appendix L.
- (e) The certificate holder shall maintain a curriculum that shows—
  - (1) The required practical projects to be completed;
  - (2) For each subject, the proportions of theory and other instruction to be given; and
  - (3) A list of the minimum required tests to be given.
- (f) Each ATO may issue AME licenses of competency to persons successfully completing speciality courses provided that all requirements are met and the licenses of competency specifies the aircraft make and model to which the license applies.

*Implementing Standard: See IS: 3.2.1.1, Appendix L, for applicable AME course curriculum subjects and items.*

### 3.4.2.4 AME TRAINING PROGRAM PROVIDERS

- (a) The holder of a training organisation applicant may apply to the SSCA for approval for an AME training program.
- (b) An AOC holder, an AMO, or an ATO may apply to the SSCA for approval for an AME training program that meets the requirements of this Subpart.

*Implementing Standard: See IS: 3.2.1.1, Appendix L, for AME training program curriculum requirements.*

### 3.4.2.5 INSTRUCTOR REQUIREMENTS

- (a) Each ATO shall provide the number of instructors holding appropriate licenses and ratings, issued under Part 2, Section 2.4.4, that the SSCA determines is necessary to provide adequate instruction and supervision of the students, including at least one such instructor for each 25 students in each class held in a shop where students are performing actual tasks appropriate to the curriculum.
- (b) An ATO may provide specialised instructors, who are not licensed in accordance with Part 2, to teach mathematics, physics, basic electricity, basic hydraulics, drawing, and similar subjects.
- (c) Each ATO shall maintain a list of the names and qualifications of such specialised instructors, and upon request, provide a copy of the list, with a summary of the qualifications of each specialised instructor to the SSCA.

### 3.4.2.6 ATTENDANCE AND CREDIT FOR PRIOR INSTRUCTION OR EXPERIENCE

- (a) An ATO may credit a student with instruction or previous experience as follows:
  - (1) Instruction satisfactorily completed at—
    - (i) An accredited university, college, or junior college;

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- (ii) An accredited vocational, technical, trade or high school;
  - (iii) A military technical school; or
  - (iv) An ATO.
- (2) Previous aviation maintenance experience comparable to required curriculum subjects—
- (i) By determining the amount of credit to be allowed by documents verifying previous experience; and
  - (ii) By giving the student a test equal to the one given to students who complete the comparable required curriculum subject at the ATO.
- (3) Credit to be allowed for previous instruction —
- (i) By an entrance test equal to one given to the students who complete a comparable required curriculum subject at the crediting ATO;
  - (ii) By an evaluation of an authenticated transcript from the student's former school; or
  - (iii) In the case of an applicant from a military school, only on the basis of an entrance test.
- (4) A certificate holder may credit a student seeking an additional rating with previous satisfactory completion of the general portion of an AME's curriculum.
- (b) Each ATO shall show hours of absence allowed and how it will make missed material available to the student.

## PART 3 - IMPLEMENTING STANDARDS

### IS: 3.1.2.2 APPLICATION FOR ISSUANCE OR AMENDMENT OF ATO CERTIFICATE

- (a) Each applicant for an ATO certificate and training specification shall provide to the SSCA the following information:
- (1) A statement showing that the minimum qualification requirements for each management position are met or exceeded.
  - (2) A statement acknowledging that the applicant must notify the SSCA within 10 working days of any change made in the assignment of persons in the required management positions.
  - (3) The proposed training specifications requested by the applicant.
  - (4) The proposed evaluation authorisation.
  - (5) A description of the flight training equipment that the applicant proposes to use.
  - (6) A description of the applicant's training facilities, equipment, and qualifications of personnel to be used, and proposed evaluation plans.
  - (7) A training program curriculum, including syllabi, outlines, courseware, procedures, and documentation to support the items required in 3.1.2.3, upon request by the SSCA.
  - (8) A description of a record keeping system that will identify and document the details of training, qualification, and licensing of students, instructors, and evaluators.
  - (9) A description of quality control measures proposed.
  - (10) A method of demonstrating the applicant's qualification and ability to provide training for a license or rating in fewer than the minimum hours prescribed in Part 2 if the applicant proposes to do so.

### IS: 3.1.3.1 FACILITIES FOR AME COURSES

- (a) An applicant for, and holder of, an ATO certificate shall have facilities the SSCA determines are appropriate for the maximum number of students expected to be taught at any time, as follows:
- (1) An enclosed classroom.
  - (2) Suitable facilities arranged to assure proper separation from the working space, for parts, tools, materials, and similar articles.
  - (3) Suitable area for application of finishing materials, including paint spraying.
  - (4) Suitable areas equipped with wash tank and degreasing equipment with air pressure or other adequate cleaning equipment.
  - (5) Suitable facilities for running engines.
  - (6) Suitable area with adequate equipment, including benches, tables, and test equipment, to disassemble, service, and inspect—
    - (i) Ignition systems, electrical equipment, and appliances;
    - (ii) Carburetors and fuel systems; and
    - (iii) Hydraulic and vacuum systems for aircraft, aircraft engines, and their appliances.
  - (7) Suitable space with adequate equipment, including tables, benches, stands, and jacks, for disassembling, inspecting, and rigging aircraft.
  - (8) Suitable space with adequate equipment for disassembling, inspecting, assembling, troubleshooting, and timing engines.

### IS: 3.2.1.1 APPENDIX A: PRIVATE PILOT LICENSING COURSE

- (a) Applicability. Appendix A prescribes the minimum curriculum for a private pilot licensing course with the following ratings—
- (1) Aeroplane single-engine;
  - (2) Aeroplane multi-engine;
  - (3) Rotor wing aircraft;
  - (4) Gyroplane;
  - (5) Powered-glider;

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- (6) Glider;
  - (7) Micro-light aircraft;
  - (8) Airship; and
  - (9) Balloon.
- (b) Eligibility for enrolment. A person shall hold a student pilot license prior to enrolling in the flight portion of the private pilot licensing course.
- (c) Aeronautical knowledge training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each approved course includes at least the following hours of ground training on the following aeronautical knowledge areas, appropriate to the aircraft category and class rating—
    - (i) 35 hours for an aeroplane, rotorcraft, or powered-lift category rating;
    - (ii) 15 hours for a glider category rating;
    - (iii) 10 hours for a lighter-than-air category with a balloon class rating; and
    - (iv) 35 hours for a lighter-than-air category with an airship class rating.
  - (2) Ground training shall include the following aeronautical knowledge areas—
    - (i) Applicable Cambodia regulations for private pilot privileges, limitations, and flight operations;
    - (ii) Accident reporting requirements of Cambodia;
    - (iii) Applicable subjects of the SSCA provided aeronautical information publications;
    - (iv) Aeronautical charts for VFR navigation;
    - (v) Radio communication procedures;
    - (vi) Recognition of critical weather situations from the ground and in flight, windshear avoidance, and the procurement and use of aeronautical weather reports and forecasts;
    - (vii) Safe and efficient operation of aircraft, including collision avoidance, and recognition and avoidance of wake turbulence;
    - (viii) Effects of density altitude on takeoff and climb performance;
    - (ix) Weight and balance computations;
    - (x) Principles of aerodynamics, powerplants, and aircraft systems;
    - (xi) If the training course is for an aeroplane category or glider category rating, stall awareness, spin entry, spins, and spin recovery techniques;
    - (xii) Aeronautical decision making and judgement; and
    - (xiii) Pre-flight action that includes—
      - (A) Obtaining information on runway lengths, data on takeoff and landing distances, weather reports and forecasts, and fuel requirements; and
      - (B) Planning for alternatives if a planned flight cannot be completed or delays are encountered.
- (d) Flight training.
- (1) Each applicant for, and holder of, an ATO certificate with this rating shall include at least the following hours of flight training on the areas of operation listed in paragraph (d), appropriate to the aircraft category and class rating—
    - (i) 35 hours for an aeroplane, rotorwing, powered-glider, or airship rating;
    - (ii) 6 hours for a glider rating; and
    - (iii) 8 hours for a balloon rating.
  - (2) Each applicant for, and holder of, an ATO certificate with this rating shall include at least the following hours of flight training in each course—
    - (i) For each category and class, unless otherwise noted, 20 hours from a licensed flight instructor on the applicable areas of operation that includes at least—

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- (A) 3 hours of cross-country flight training in the category and class involved;
  - (B) 3 hours of night flight training in the category and class involved that includes—
    - 1. One cross-country flight of more than 100-nautical-miles total distance; and
    - 2. 10 takeoffs and 10 landings to a full stop (with each landing involving a flight in the traffic pattern).
      - (A) 3 hours of instrument training in the category and class involved; and
      - (B) 3 hours in the category and class involved in preparation for the practical test within 60 days proceeding the date of the test.
- (3) Specific training for other categories and classes as shown:
- (i) For a helicopter and gyroplane course:
    - (A) 3 hours of night flight training in a helicopter that includes one cross-country flight of more than 50-nautical-miles total distance.
  - (ii) For a glider course: 4 hours from a licensed flight instructor on the areas of operation in paragraph (d)(6) that includes at least—
    - (A) Five training flights in a glider on launch/tow procedures approved for the course and in the applicable areas of operation listed in paragraph (d)(6); and
    - (B) Three training flights in a glider in preparation for the practical test within 60 days proceeding the date of the test.
  - (iii) For a lighter-than-air airship course: 20 hours from a commercial pilot with an airship rating on the areas of operation in paragraph (e)(7) that includes at least—
    - (A) The training shown in paragraph (c)(1)(iv), taken in a lighter-than-air airship;
    - (B) 3 hours of night flight training in an airship that includes—
      - 1. One cross-country flight over 25 nautical-miles total distance; and
      - 2. Five takeoffs and five landings to a full stop (with each landing involving a flight in the traffic pattern).
  - (iv) For a lighter-than-air balloon course: 8 hours, including at least five flights, from a commercial pilot with a balloon rating on the areas of operation in paragraph (e)(8), that includes—
    - (A) If the training is being performed in a gas balloon—
      - 1. Two flights of 1 hour each;
      - 2. One flight involving a controlled ascent to 3,000 feet above the launch site; and
      - 3. Two flights in preparation for the practical test within 60 days proceeding the date of the test.
    - (B) If the training is being performed in a balloon with an airborne heater—
      - 1. Two flights of 30 minutes each;
      - 2. One flight involving a controlled ascent to 2,000 feet above the launch site; and
      - 3. Two flights in preparation for the practical test within 60 days proceeding the date of the test.
- (4) Each approved course shall include flight training in the following areas of operation that are applicable to the aircraft category and class rating—
- (i) Preflight preparation;
  - (ii) Preflight procedures;
  - (iii) Airport and seaplane base operations;
  - (iv) Takeoffs, landings, and go-arounds;
  - (v) Performance manoeuvres;
  - (vi) Ground reference manoeuvres;
  - (vii) Navigation;
  - (viii) Slow flight and stalls;

- (ix) Basic instrument manoeuvres;
  - (x) Emergency operations;
  - (xi) Night operations; and
  - (xii) Postflight procedures.
- (5) In addition, for the specific category and class of aircraft shown, each approved course shall include the applicable flight training in the following areas of operation:
- (i) For a multiengine aeroplane course—
    - (A) Multiengine operations.
  - (ii) For a rotorcraft helicopter course—
    - (A) Hovering manoeuvres.
  - (iii) For a rotorcraft gyroplane course—
    - (A) Flight at slow airspeeds.
  - (iv) For a powered-lift course—
    - (A) Hovering manoeuvres.
  - (v) For a glider course—
    - (A) Launches/tows, as appropriate, and landings;
    - (B) Performance speeds; and
    - (C) Soaring techniques.
  - (vi) For a lighter-than-air balloon course—
    - (A) Launches and landings.
- (e) Solo flight training. Each approved course shall include at least the following solo flight training—
- (1) For an aeroplane single-engine course: 5 hours of solo flight training in a single-engine aeroplane on the applicable areas of operation in paragraph (d) that includes at least—
    - (i) One solo cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and
    - (ii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.
  - (2) For an aeroplane multiengine course: 5 hours of flight training in a multiengine aeroplane performing the functions of a pilot in command while under the supervision of a licensed flight instructor. The training shall consist of the applicable areas of operation in paragraph (d) and include at least—
    - (i) One cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations; and
    - (ii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.
  - (3) For a rotorcraft helicopter course: 5 hours of solo flight training in a helicopter on the areas of operation in paragraph (d) that includes at least—
    - (i) One solo cross-country flight of more than 50 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles between the takeoff and landing locations; and
    - (ii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.
  - (4) For a rotorcraft gyroplane course: 5 hours of solo flight training in gyroplanes on the applicable areas of operation in paragraph (d) that includes at least—
    - (i) One solo cross-country flight of more than 50 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles between the takeoff and landing locations; and

- (ii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower.
- (5) For a powered-lift course: 5 hours of solo flight training in a powered-lift on the applicable areas of operation in paragraph (d) that includes at least—
  - (i) One solo cross-country flight of at least 100 nautical miles with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles between the takeoff and landing locations;
  - (ii) Three takeoffs and three landings to a full stop (with each landing involving a flight in the traffic pattern) at an airport with an operating control tower; and
  - (iii) Transition from hover to forward flight using wing lift.
- (6) For a glider course: Two solo flights in a glider on the applicable areas of operation in paragraph (d) and the launch and tow procedures appropriate for the approved course.
- (7) For a lighter-than-air airship course: 5 hours of flight training in the applicable areas of operation shown in paragraph (d) in an airship performing the functions of pilot in command while under the supervision of a commercial pilot with an airship rating.
- (8) For a lighter-than-air balloon course: Training on the applicable areas of operation in paragraph (d), as applicable, and—
  - (i) Two solo flights in a balloon with an airborne heater; or
  - (ii) At least two flights in a gas balloon performing the functions of pilot in command while under the supervision of a commercial pilot with a balloon rating.
- (f) Stage checks and end-of-course tests.
  - (1) Each student, to graduate from a private pilot course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation listed in paragraph (d) for the aircraft category and class rating.
  - (2) Each student shall demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

#### IS: 3.2.1.1 APPENDIX B: INSTRUMENT RATING COURSE

- (a) Applicability. This appendix prescribes the minimum curriculum for an instrument rating course and additional instrument rating course, required under this Part, for the following ratings:
  - (1) Instrument: aeroplane.
  - (2) Instrument: helicopter.
  - (3) Instrument: powered-lift.
- (b) Eligibility for enrolment. A person shall hold at least a private pilot license with an aircraft category and class rating appropriate to the instrument rating for which the course applies prior to enrolling in the flight portion of the instrument rating course.
- (c) Aeronautical knowledge training.
  - (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each approved course includes at least the following hours of ground training on the aeronautical knowledge areas appropriate to the instrument rating sought—
    - (i) 30 hours for an initial instrument rating.
    - (ii) 20 hours for an additional instrument rating.
  - (2) Ground training shall include the following aeronautical knowledge areas—
    - (i) Applicable Cambodia regulations for IFR flight operations;
    - (ii) Appropriate information in aeronautical information publications provided by the SSCA;
    - (iii) Air traffic control system and procedures for instrument flight operations;
    - (iv) IFR navigation and instrument approaches to an airport by use of navigation systems;
    - (v) Use of IFR enroute and instrument approach procedure charts;

- (vi) Procurement and use of aviation weather reports and forecasts, and the elements of forecasting weather trends on the basis of that information and personal observation of weather conditions;
  - (vii) Safe and efficient operation of aircraft under IFR conditions;
  - (viii) Recognition of critical weather situations and windshear avoidance;
  - (ix) Aeronautical decision making and judgement; and
  - (x) Crew resource management, to include crew communication and co-ordination.
- (d) Flight training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least the following hours of flight training on the applicable areas of operation listed in paragraph (c)—
    - (i) 35 hours for an initial instrument rating;
    - (ii) 15 hours for an additional instrument rating.
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes the following flight training—
    - (i) For an instrument aeroplane course: Instrument training from a licensed flight instructor with an instrument rating on the applicable areas of operation in paragraph (c) including at least one cross-country flight that—
      - (A) Is in the category and class of aeroplane that the course is approved for, and is performed under IFR;
      - (B) Is a distance of at least 250 nautical miles with one segment of the flight consisting of at least a straight-line distance of 100 nautical miles between airports;
      - (C) Involves an instrument approach at each airport; and
      - (D) Involves three approaches with the using different kinds of navigation systems.
    - (ii) For an instrument helicopter course: Instrument training from a licensed flight instructor with an instrument rating on the applicable areas of operation in paragraph (c) including at least one cross-country flight that—
      - (A) Is performed in a helicopter under IFR;
      - (B) Is a distance of at least 100 nautical miles with one segment of the flight consisting of at least a straight-line distance of 50 nautical miles between airports;
      - (C) Involves an instrument approach at each airport; and
      - (D) Involves three approaches with the using different kinds of navigation systems.
    - (iii) For an instrument powered-lift course: Instrument training from a licensed flight instructor with an instrument rating on the areas of operation in paragraph (c) including at least one cross-country flight that—
      - (A) Is in a powered-lift and is performed under IFR;
      - (B) Involves transition from wing-borne to rotor-borne flight under IFR;
      - (C) Is a distance of at least 250 nautical miles with one segment of the flight consisting of at least a straight-line distance of 100 nautical miles between airports;
      - (D) Involves an instrument approach at each airport; and
      - (E) Involves three different kinds of approaches with the use of navigation systems.
  - (3) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes the flight training on the applicable areas of operation listed in this paragraph appropriate to the instrument aircraft category and class rating—
    - (i) Preflight preparation;
    - (ii) Preflight procedures;

- (iii) Air traffic control clearances and procedures;
  - (iv) Flight by reference to instruments;
  - (v) Navigation systems;
  - (vi) Instrument approach procedures;
  - (vii) Emergency operations; and
  - (viii) Postflight procedures.
- (e) Stage checks and end-of-course tests.
- (1) Each student, to graduate from an instrument rating course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation listed in paragraph (c) that are appropriate to the aircraft category and class rating.

### IS: 3.2.1.1 APPENDIX C: COMMERCIAL PILOT LICENSING COURSE

- (a) Applicability. This appendix prescribes the minimum curriculum for a commercial pilot licensing course required under this Part, for the following ratings:
- (1) Aeroplane single-engine.
  - (2) Aeroplane multiengine.
  - (3) Rotorcraft helicopter.
  - (4) Rotorcraft gyroplane.
  - (5) Powered-lift.
  - (6) Glider.
  - (7) Lighter-than-air airship.
  - (8) Lighter-than-air balloon.
- (b) Eligibility for enrolment. A person shall hold the following prior to enrolling in the flight portion of the commercial pilot licensing course—
- (1) At least a private pilot license; and
  - (2) If the course is for a rating in an aeroplane or a powered-lift category—
    - (i) Hold an instrument rating in the aircraft that is appropriate to the aircraft category rating for which the course applies; or
    - (ii) Be enrolled concurrently in an instrument rating course that is appropriate to the aircraft category rating for which the course applies, and pass the required instrument rating practical test prior to completing the commercial pilot licensing course.
- (c) Aeronautical knowledge training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least the following ground training on the applicable aeronautical knowledge areas listed in paragraph (b):
    - (i) 65 hours for an aeroplane category rating, powered-lift category rating, or a lighter-than-air category with an airship class rating.
    - (ii) 30 hours for a rotorcraft category rating.
    - (iii) 20 hours for a glider category rating.
    - (iv) 20 hours for a lighter-than-air category with a balloon class rating.
  - (2) Ground training shall include the following aeronautical knowledge areas:
    - (i) Cambodia regulations that apply to commercial pilot privileges, limitations, and flight operations.
    - (ii) Accident reporting requirements of Cambodia.
    - (iii) Basic aerodynamics and the principles of flight.
    - (iv) Meteorology, to include recognition of critical weather situations, windshear recognition and avoidance, and the use of aeronautical weather reports and forecasts.
    - (v) Safe and efficient operation of aircraft.

- (vi) Weight and balance computations.
  - (vii) Use of performance charts.
  - (viii) Significance and effects of exceeding aircraft performance limitations.
  - (ix) Use of aeronautical charts and a magnetic compass for pilotage and dead reckoning.
  - (x) Use of air navigation facilities.
  - (xi) Aeronautical decision making and judgement.
  - (xii) Principles and functions of aircraft systems.
  - (xiii) Manoeuvres, procedures, and emergency operations appropriate to the aircraft.
  - (xiv) Night and high-altitude operations.
  - (xv) Descriptions of and procedures for operating within the Cambodia Airspace System.
  - (xvi) Procedures for flight and ground training for lighter-than-air ratings.
- (d) Flight training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least the following flight training on the applicable areas of operation listed in paragraph (c):
    - (i) 155 hours for an aeroplane, powered-lift, or an airship rating.
    - (ii) 115 hours for a rotorcraft rating.
    - (iii) 6 hours for a glider rating.
    - (iv) 10 hours and 8 training flights for a balloon rating.
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least the following flight training—
    - (i) For an aeroplane single-engine course: 55 hours of flight training from a licensed flight instructor on the areas of operation listed in paragraph (c)(1) that includes at least—
      - (A) 5 hours of instrument training in a single-engine aeroplane;
      - (B) 10 hours of training in a single-engine aeroplane that has retractable landing gear, flaps, and a controllable pitch propeller, or is turbine-powered;
      - (C) One cross-country flight in a single-engine aeroplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in day VFR conditions;
      - (D) One cross-country flight in a single-engine aeroplane of at least a 2-hour duration, a total straight-line distance of more than 100 nautical miles from the original point of departure, and occurring in night VFR conditions; and
      - (E) 3 hours in a single-engine aeroplane in preparation for the practical test within 60 days preceding the date of the test.
    - (ii) For an aeroplane multiengine course: The flight training shown in paragraph (d)(1), accomplished in a multiengine aeroplane.
    - (iii) For a rotorcraft helicopter and gyroplane course—
      - (A) The flight training shown in paragraph (d)(1), accomplished in a helicopter; except 30 hours of flight training from a licensed flight instructor on the areas of operation listed in paragraph (e)(3) that includes at least—
        - 1. 5 hours of instrument training;
        - 2. One cross-country flight in a helicopter of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure, and occurring in day VFR conditions; and
        - 3. One cross-country flight in a helicopter of at least a 2-hour duration, a total straight-line distance of more than 50 nautical miles from the original point of departure, and occurring in night VFR conditions.
    - (iv) For a powered-lift course: The applicable flight training shown in paragraph (d)(1), flown in a powered-lift aircraft.

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- (v) For a glider course: 4 hours of flight training from a licensed flight instructor on the areas of operation in paragraph (e)(6), that includes at least—
    - (A) Five training flights in a glider on launch/tow procedures approved for the course and on the appropriate areas of operation listed in paragraph (e)(6); and
    - (B) Three training flights in a glider in preparation for the practical test within the 60 days proceeding the date of the test.
  - (vi) For a lighter-than-air airship course: 55 hours of training in airships from a commercial pilot with an airship rating on the areas of operation in paragraph (c)(7) that includes at least—
    - (A) 3 hours of instrument training in an airship;
    - (B) One cross-country flight in an airship of at least a 1-hour duration, a total straight-line distance of more than 25 nautical miles from the original point of departure, and occurring in day VFR conditions; and
    - (C) One cross-country flight in an airship of at least a 1-hour duration, a total straight-line distance of more than 25 nautical miles from the original point of departure, and occurring in night VFR conditions; and
    - (D) 3 hours in an airship, in preparation for the practical test within 60 days proceeding the date of the test.
  - (vii) For a lighter-than-air balloon course: Flight training from a commercial pilot with a balloon rating on the areas of operation in paragraph (e)(8) that includes at least—
    - (A) For a gas balloon—
      1. Two flights of 1 hour each;
      2. One flight involving a controlled ascent to at least 5,000 feet above the launch site; and
      3. Two flights in preparation for the practical test within 60 days proceeding the date of the test.
    - (B) For a balloon with an airborne heater—
      1. Two flights of 30 minutes each;
      2. One flight involving a controlled ascent to at least 3,000 feet above the launch site; and
      3. Two flights in preparation for the practical test within 60 days proceeding the date of the test.
- (3) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes the flight training on the following areas of operation, as applicable—
- (i) For an aeroplane single-engine course—
    - (A) Preflight preparation;
    - (B) Preflight procedures;
    - (C) Airport and seaplane base operations;
    - (D) Takeoffs, landings, and go-arounds;
    - (E) Performance manoeuvres;
    - (F) Navigation;
    - (G) Slow flight and stalls;
    - (H) Emergency operations;
    - (I) High-altitude operations; and
    - (J) Postflight procedures.
- (4) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course for the following category and class ratings includes flight training on the applicable areas of operation:
- (i) For an aeroplane multiengine course—

- (A) Multiengine operations.
  - (ii) For a rotorcraft helicopter course—
    - (A) Hovering manoeuvres;
    - (B) Transition to wing-borne flight;
    - (C) Transition to hover; and
    - (D) Special operations.
  - (iii) For a rotorcraft gyroplane course—
    - (A) Flight at slow airspeeds.
  - (iv) For a powered-lift course—
    - (A) Hovering manoeuvres; and
    - (B) Special operations.
  - (v) For a glider course—
    - (A) Launches/tows, as appropriate, and landings; and
    - (B) Soaring techniques.
  - (vi) For a lighter-than-air airship course—
    - (A) Fundamentals of instructing;
    - (B) Technical subjects; and
    - (C) Preflight lessons on a manoeuvre to be performed in flight.
  - (vii) For a lighter-than-air balloon course—
    - (A) Fundamentals of instructing;
    - (B) Technical subjects;
    - (C) Preflight lesson on a manoeuvre to be performed in flight; and
    - (D) Launches and landings.
- (e) Solo training. Each applicant for, and holder of, a Level 1 ATO certificate, shall ensure that each approved course includes at least the following solo flight training—
- (1) For an aeroplane single-engine course: 10 hours of solo flight training in a single-engine aeroplane on the areas of operation in paragraph (d)(3)(i) that include at least—
    - (i) One cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points, and one of the segments consisting of a straight-line distance of at least 150 nautical miles;
    - (ii) One cross-country flight, if the training is being performed on other than a small island, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 250 nautical miles; and
    - (iii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower.
  - (2) For an aeroplane multiengine course: 10 hours of flight training in a multiengine aeroplane performing the functions of pilot in command while under the supervision of a licensed flight instructor, consisting of the areas of operation in paragraph (d)(4)(i) that include at least—
    - (i) One cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points, and one of the segments consisting of a straight-line distance of at least 150 nautical miles;
    - (ii) One cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points and one segment of the flight consisting of straight-line distance of at least 250 nautical miles; and
    - (iii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower.
  - (3) For a rotorcraft helicopter course: 10 hours of solo flight training in a helicopter on the areas of operation in paragraph (d)(4)(ii) that include at least—

- (i) One cross-country flight with landings at a minimum of three points and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and
- (ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower.
- (4) For a rotorcraft-gyroplane course: 10 hours of solo flight training in a gyroplane on the areas of operation in paragraph (d)(4)(iii) that include at least—
  - (i) One cross-country flight with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 50 nautical miles from the original point of departure; and
  - (ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower.
- (5) For a powered-lift course: 10 hours of solo flight training in a powered-lift on the areas of operation in paragraph (d)(4)(iv) that include at least—
  - (i) One cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points, and one segment of the flight consisting a straight-line distance of at least 150 nautical miles;
  - (ii) One cross-country flight, if the training is being performed on a small island, with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 250 nautical miles; and
  - (iii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings with each landing involving a flight with a traffic pattern at an airport with an operating control tower.
- (6) For a glider course: 5 solo flights in a glider the areas of operation in paragraph (d)(4)(v).
- (7) For a lighter-than-air airship course: 10 hours of flight training in an airship, while performing the functions of pilot in command under the supervision of a commercial pilot with an airship rating consisting of the areas of operation in paragraph (d)(4)(vi) that include at least—
  - (i) One cross-country flight with landings at a minimum of three points, and one segment of the flight consisting of a straight-line distance of at least 25 nautical miles from the original point of departure; and
  - (ii) 5 hours in night VFR conditions with 10 takeoffs and 10 landings with each landing involving a flight with a traffic pattern.
- (8) For a lighter-than-air balloon course:
  - (i) Training on the applicable areas of operation in paragraph (d)(4)(vii), while performing the duties of pilot in command under the supervision of a commercial pilot with a balloon rating.
  - (ii) Two solo flights is for a hot air balloon rating.
  - (iii) At least two flights in a gas balloon for a gas balloon rating.
- (f) Stage checks and end-of-course tests.
  - (1) Each student, to graduate from a commercial pilot course, shall satisfactorily accomplish the stage checks and end-of-course tests consisting of the applicable areas of operation listed in paragraph (d)(4).
  - (2) Each student shall demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

### IS: 3.2.1.1 APPENDIX D: AIRLINE TRANSPORT PILOT LICENSING COURSE

- (a) Applicability. This appendix prescribes the minimum curriculum for a airline transport pilot licensing course under this Part, for the following ratings—
  - (1) Aeroplane single-engine.
  - (2) Aeroplane multiengine.
  - (3) Rotorcraft helicopter.
  - (4) Powered-lift.

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- (b) Eligibility for enrolment. Prior to enrolling in the flight portion of the airline transport pilot licensing course, a person shall—
- (1) Meet the aeronautical experience requirements prescribed in Part 2, Subpart 2.2.5 for an airline transport pilot license that is appropriate to the aircraft category and class rating for which the course applies;
  - (2) Hold at least a commercial pilot license and an instrument rating;
  - (3) Meet the military experience requirements under 2.1.3.3 to qualify for a commercial pilot license and an instrument rating, if the person is a rated military pilot or former rated military pilot of an Armed Force of Cambodia; or
  - (4) Hold a foreign airline transport pilot license or foreign commercial pilot license and an instrument rating, issued by a contracting State to the Convention on International Civil Aviation.
- (c) Aeronautical knowledge areas.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least 40 hours of ground training on the applicable aeronautical knowledge areas listed in paragraph (b).
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that ground training includes the following aeronautical knowledge areas—
    - (i) Applicable Cambodia regulations that relate to airline transport pilot privileges, limitations, and flight operations;
    - (ii) Meteorology, including knowledge of and effects of fronts, frontal characteristics, cloud formations, icing, and upper-air data;
    - (iii) General system of weather and NOTAM collection, dissemination, interpretation, and use;
    - (iv) Interpretation and use of weather charts, maps, forecasts, sequence reports, abbreviations, symbols;
    - (v) Cambodia Weather Service functions as they pertain to operations in the Cambodia Airspace System;
    - (vi) Windshear and microburst awareness, identification, and avoidance;
    - (vii) Principles of air navigation under instrument meteorological conditions in the Cambodia Airspace System;
    - (viii) Air traffic control procedures and pilot responsibilities as they relate to en route operations, terminal area and radar operations, and instrument departure and approach procedures;
    - (ix) Aircraft loading; weight and balance; use of charts, graphs, tables, formulas, and computations; and the effects on aircraft performance;
    - (x) Aerodynamics relating to an aircraft's flight characteristics and performance in normal and abnormal flight regimes;
    - (xi) Human factors;
    - (xii) Aeronautical decision making and judgement; and
    - (xiii) Crew resource management to include crew communication and co-ordination.
- (d) Flight training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least 25 hours of flight training on the applicable areas of operation listed in paragraph 3(b), including at least 15 hours of be instrument flight training; and
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes flight training on the following areas of operation, as applicable—
    - (i) Preflight preparation;
    - (ii) Preflight procedures;
    - (iii) Takeoff and departure phase;

- (iv) In-flight manoeuvres;
  - (v) Instrument procedures;
  - (vi) Landings and approaches to landings;
  - (vii) Normal and abnormal procedures;
  - (viii) Emergency procedures; and
  - (ix) Postflight procedures.
- (e) Stage checks and end-of-course tests.
- (1) Each student, to graduate from an airline transport pilot course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation listed in paragraph 3(b) that are appropriate to the aircraft category and class rating for which the course applies.

### IS: 3.2.1.1 APPENDIX E: FLIGHT INSTRUCTOR LICENSING COURSE

- (a) Applicability. This appendix prescribes the minimum curriculum for a flight instructor licensing course and an additional flight instructor rating course required under this Part, for the following ratings—
- (1) Aeroplane single-engine.
  - (2) Aeroplane multiengine.
  - (3) Rotorcraft helicopter.
  - (4) Rotorcraft gyroplane.
  - (5) Powered-lift.
  - (6) Glider category.
- (b) Eligibility for enrolment. A person shall hold the following prior to enrolling in the flight portion of the flight instructor or additional flight instructor rating course—
- (1) A commercial pilot license or an airline transport pilot license with an aircraft category and class rating appropriate to the flight instructor rating for which the course applies; and
  - (2) An instrument rating or privilege in an aircraft that is appropriate to the aircraft category and class rating for which the course applies, if the course is for a flight instructor aeroplane or powered-lift instrument rating.
- (c) Aeronautical knowledge training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least the following ground training in the aeronautical knowledge areas listed in paragraph (d)—
    - (i) 40 hours of training if the course is for an initial issuance of a flight instructor certificate; or
    - (ii) 20 hours of training if the course is for an additional flight instructor rating.
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that ground training includes the following aeronautical knowledge areas—
    - (i) The fundamentals of instructing, including—
      - (A) The learning process;
      - (B) Elements of effective teaching;
      - (C) Student evaluation and testing;
      - (D) Course development;
      - (E) Lesson planning; and
      - (F) Classroom training techniques.
    - (ii) The aeronautical knowledge areas required for—
      - (A) A private and commercial pilot license that is appropriate to the category and class rating sought; and

- 
- (B) An instrument rating that is appropriate to the aircraft category and class rating for which the course applies, if the course is for an aeroplane or powered-lift aircraft rating.
- (3) A Level 1 ATO may credit a student who satisfactorily completes 2 years of study on the principles of education at a college or university with no more than 20 hours of the training required in paragraph (c)(1).
- (d) Flight training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least the following flight training on the applicable areas of operation of paragraphs (d)(2) and (d)(3)—
- (i) 25 hours for an aeroplane, rotorcraft, or powered-lift rating; and
  - (ii) 10 hours and 10 flights for a glider category rating.
- (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes flight training on the following areas of operation, as applicable for each category and class—
- (i) Fundamentals of instructing;
  - (ii) Technical subject areas;
  - (iii) Preflight preparation;
  - (iv) Preflight lesson on a manoeuvre to be performed in flight;
  - (v) Preflight procedures;
  - (vi) Airport and seaplane base operations;
  - (vii) Takeoffs, landings, and go-arounds;
  - (viii) Fundamentals of flight;
  - (ix) Performance manoeuvres;
  - (x) Ground reference manoeuvres;
  - (xi) Slow flight, stalls, and spins;
  - (xii) Basic instrument manoeuvres;
  - (xiii) Emergency operations; and
  - (xiv) Postflight procedures.
- (3) For the category and class of aircraft shown below, each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes flight training in the following areas of operation, as applicable:
- (i) For an aeroplane: multiengine course—
    - (A) Multiengine operations.
  - (ii) For a rotorcraft: helicopter course—
    - (A) Hovering manoeuvres; and
    - (B) Special operations.
  - (iii) For a rotorcraft: gyroplane course—
    - (A) Flight at slow airspeeds.
  - (iv) For a powered-lift course—
    - (A) Hovering manoeuvres;
    - (B) Transition to wing-borne flight;
    - (C) Transition to hover; and
    - (D) Special operations.
  - (v) For a glider course—
    - (A) Launches, landings, and go-arounds;
    - (B) Performance speeds; and
    - (C) Soaring techniques.

- (e) Stage checks and end-of-course tests.
  - (1) Each student, to graduate from a flight instructor course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation listed in paragraph 4 of this appendix.
  - (2) A student enrolled in a flight instructor-aeroplane rating or flight instructor-glider rating course shall have—
    - (i) Received a logbook endorsement from a licensed flight instructor certifying the student received ground and flight training on stall awareness, spin entry, spins, and spin recovery procedures in an aircraft that is certified for spins and that is appropriate to the rating sought; and
    - (ii) Demonstrated instructional proficiency in stall awareness, spin entry, spins, and spin recovery procedures.

### IS: 3.2.1.1 APPENDIX F: FLIGHT INSTRUCTOR INSTRUMENT LICENSING COURSE

- (a) Applicability. This appendix prescribes the minimum curriculum for a flight instructor instrument licensing course required under this Part, for the following ratings—
  - (1) Flight Instructor Instrument: Aeroplane.
  - (2) Flight Instructor Instrument: Helicopter.
  - (3) Flight Instructor Instrument: Powered-lift aircraft.
- (b) Eligibility for enrolment. A pilot shall hold, prior to enrolling in the flight portion of the course—
  - (1) A commercial pilot license or airline transport pilot license with a category and class rating appropriate to the rating sought; and
  - (2) For commercial pilot license holders, an instrument rating that is appropriate to the rating sought.
- (c) Aeronautical knowledge training.
  - (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least 15 hours of ground training on the applicable aeronautical knowledge areas listed in paragraph (c)(2).
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes ground training on the following aeronautical knowledge areas—
    - (i) The fundamentals of instructing including—
      - (A) Learning process;
      - (B) Elements of effective teaching;
      - (C) Student evaluation and testing;
      - (D) Course development;
      - (E) Lesson planning; and
      - (F) Classroom training techniques.
    - (ii) The aeronautical knowledge areas required for the instrument rating that is appropriate to the category and class of aircraft.
- (d) Flight training.
  - (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least 15 hours of flight training in the applicable areas of operation of paragraph (b).
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course for the flight instructor-instrument rating includes flight training on the following areas of operation in paragraph (d)(2)—
    - (i) Fundamentals of instructing;
    - (ii) Technical subject areas;
    - (iii) Preflight preparation;
    - (iv) Preflight lesson on a manoeuvre to be performed in flight;

- (v) Air traffic control clearances and procedures;
  - (vi) Flight by reference to instruments;
  - (vii) Navigation systems;
  - (viii) Instrument approach procedures;
  - (ix) Emergency operations; and
  - (x) Postflight procedures.
- (e) Stage checks and end-of-course tests.
- (1) Each student, to graduate from a flight instructor instrument course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation listed in paragraph (d).

### IS: 3.2.1.1 APPENDIX G: GROUND INSTRUCTOR LICENSING COURSE

- (a) Applicability. This appendix prescribes the minimum curriculum for a ground instructor licensing course and an additional ground instructor rating course, issued under Part 2 for the following ratings—
- (1) Ground Instructor: Basic.
  - (2) Ground Instructor: Advanced.
  - (3) Ground Instructor: Instrument.
- (b) Aeronautical knowledge training.
- (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least the following ground training on the applicable knowledge areas listed in paragraphs (b), (c), (d), and (e)—
    - (i) 20 hours of training for an initial issuance of a ground instructor certificate; or
    - (ii) 10 hours of training for an additional ground instructor rating.
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that ground training includes the following aeronautical knowledge areas—
    - (i) Learning process;
    - (ii) Elements of effective teaching;
    - (iii) Student evaluation and testing;
    - (iv) Course development;
    - (v) Lesson planning; and
    - (vi) Classroom training techniques.
  - (3) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that ground training for a basic ground instructor license includes the aeronautical knowledge areas applicable to a private pilot.
  - (4) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that ground training for an advanced ground instructor rating includes the aeronautical knowledge areas applicable to a private, commercial, and airline transport pilot.
  - (5) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that ground training for an instrument ground instructor rating includes the aeronautical knowledge areas applicable to an instrument rating.
  - (6) A Level 1 ATO may credit a student who satisfactorily completed 2 years of study on the principles of education at a college or university with 10 hours of the training required in paragraph (a)(1).
- (c) Stage checks and end-of-course tests.
- (1) Each student, to graduate from a ground instructor course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable knowledge areas of this appendix.

**IS: 3.2.1.1 APPENDIX H: ADDITIONAL AIRCRAFT CATEGORY OR CLASS RATING COURSE**

- (a) Applicability. This appendix prescribes the minimum curriculum for an additional aircraft category rating course or an additional aircraft class rating course required under this Part, for the following ratings:
- (1) Aeroplane single-engine.
  - (2) Aeroplane multiengine.
  - (3) Rotorcraft helicopter.
  - (4) Rotorcraft gyroplane.
  - (5) Powered-lift.
  - (6) Glider.
  - (7) Lighter-than-air airship.
  - (8) Lighter-than-air balloon.
- (b) Eligibility for enrolment. A person shall hold the level of pilot license for the additional aircraft category and class rating for which the course applies prior to enrolling in the flight portion of an additional aircraft category or additional aircraft class rating course.
- (c) Aeronautical knowledge training. Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course for an additional category rating and additional class rating includes the total number of hours of training in all the aeronautical knowledge areas appropriate to the aircraft rating and pilot license level sought.
- (d) Flight training. Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course for an additional aircraft category rating or additional aircraft class includes the total number of hours of flight training on all of the areas of operation of this paragraph appropriate to the aircraft rating and pilot license level for which the course applies.
- (e) Stage checks and end-of-course tests.
- (1) Each student, to graduate from an additional aircraft category rating course or an additional aircraft class rating course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation in this appendix.
  - (2) Each student shall demonstrate satisfactory proficiency prior to being endorsed to operate an aircraft in solo flight.

**IS: 3.2.1.1 APPENDIX I: AIRCRAFT TYPE RATING COURSE**

- (a) Applicability. This appendix prescribes the minimum Level 1 ATO curriculum for an aircraft type rating course for:
- (1) A type rating in an aeroplane category: single-engine class.
  - (2) A type rating in an aeroplane category: multiengine class.
  - (3) A type rating in a rotorcraft category: helicopter class.
  - (4) A type rating in a powered-lift category.
  - (5) Other aircraft type ratings specified by the SSCA through the aircraft type certificate procedures.
- (b) Eligibility for enrollment.
- (1) Prior to enrolling in the flight portion of an aircraft type rating course, a person shall hold at least a private pilot license and—
    - (i) An instrument rating in the category and class of aircraft that is appropriate to the aircraft type rating for which the course applies, provided the aircraft's type certificate does not have a VFR limitation; or
    - (ii) Be concurrently enrolled in an instrument rating course in an aircraft of the type rating sought, and pass the required instrument rating practical test concurrently with the type rating practical test.

- (c) Aeronautical knowledge training.
  - (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least 10 hours of ground training on the applicable aeronautical knowledge areas listed in paragraph (b).
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that ground training includes the following aeronautical areas—
    - (i) Subjects requiring a practical knowledge of the aircraft type and its powerplant, systems, components, operational, and performance factors;
    - (ii) The aircraft's normal, abnormal, and emergency procedures, and the operations and limitations relating thereto;
    - (iii) Appropriate provisions of the approved aircraft's flight manual;
    - (iv) Location of and purpose of inspecting each item on the aircraft's checklist that relate to the exterior and interior preflight; and
    - (v) Use of the aircraft's prestart checklist, appropriate control system checks, starting procedures, radio and electronic equipment checks, and the selection of proper navigation and communication radio facilities and frequencies.
- (d) Flight training.
  - (1) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each course includes at least—
    - (i) Flight training on the applicable areas of operation of paragraph (b) in the aircraft type for which the course applies; and
    - (ii) At least 5 hours shall be instrument training in the aircraft for which the course applies.
  - (2) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each type rating course includes the flight training on the following areas of operation—
    - (i) Preflight preparation;
    - (ii) Preflight procedures;
    - (iii) Takeoff and departure phase;
    - (iv) In-flight manoeuvres;
    - (v) Instrument procedures;
    - (vi) Landings and approaches to landings;
    - (vii) Normal and abnormal procedures;
    - (viii) Emergency procedures; and
    - (ix) Postflight procedures.
- (e) Stage checks and end-of-course tests. Each student, to graduate from an aircraft type rating course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the applicable areas of operation for the airline transport pilot license.

### IS: 3.2.1.1 APPENDIX J: SPECIAL PREPARATION COURSES

- (a) Applicability. This appendix prescribes the minimum curriculum for the special preparation courses that are listed in 3.1.2.2.
- (b) Eligibility for enrolment. Prior to enrolling in the flight portion of a special preparation course, a person shall hold a pilot license, flight instructor certificate, or ground instructor license that is appropriate for the exercise of the operating privileges or authorisations sought.
- (c) General requirements.
  - (1) To be approved, an applicant for a special preparation course shall present to the SSCA a proposal that:
    - (i) Meets the appropriate requirements of this Appendix.

- (ii) Prepares the graduate with the necessary skills, competency, and proficiency to exercise safely the privileges of the certificate, rating, or authorisation for which the course is established.
  - (iii) Includes ground and flight training on the operating privileges or authorisation sought.
- (d) Stage check and end-of-course tests.
  - (1) Each person, to graduate from a special preparation course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation that are appropriate to the operating privileges or authorisation sought, and for which the course applies.
- (e) Agricultural aircraft operations course.
  - (1) A special preparation course for pilots in agricultural aircraft operations shall include at least the following—
    - (i) 25 hours of training on—
      - (A) Agricultural aircraft operations;
      - (B) Safe piloting operating practices and procedures for handling, dispensing, and disposing agricultural and industrial chemicals, including operating in and around congested areas; and
      - (C) Applicable provisions of Part 11, Subpart 11.2.
    - (ii) 15 hours of flight training on agricultural aircraft operations.
- (f) Rotorcraft external-load operations course.
  - (1) A special preparation course for pilots of external-load operations shall include at least the following:
    - (i) 10 hours of training on—
      - (A) Rotorcraft external-load operations;
      - (B) Safe piloting operating practices and procedures for external-load operations, including operating in and around congested areas; and
      - (C) Applicable provisions of Part 11, Subpart 11.3.
    - (ii) 15 hours of flight training on external-load operations.
- (g) Test pilot course.
  - (1) Each applicant for, and holder of, a special preparation course for test pilot duties shall include at least the following:
    - (i) Aeronautical knowledge training on—
      - (A) Performing aircraft maintenance, quality assurance, and certification test flight operations; and
      - (B) Applicable parts of these regulations that pertain to aircraft maintenance, quality assurance, and certification tests.
    - (ii) 15 hours of flight training.
- (h) Special operations course.
  - (1) A special preparation course for pilots in special operations that are mission-specific for certain aircraft shall include at least the following:
    - (i) Aeronautical knowledge training on—
      - (A) Performing that special flight operation;
      - (B) Safe piloting operating practices and procedures for performing that special flight operation;
      - (C) Applicable parts of these regulations that pertain to that special flight operation; and
      - (D) Pilot in command duties and responsibilities for performing that special flight operation.

- (ii) Flight training on that special flight operation.
- (i) Pilot refresher course.
  - (1) Each applicant for, and holder of, a special preparation pilot refresher course for a pilot license, aircraft category and class rating, or an instrument rating shall include at least the following:
    - (i) 4 hours of aeronautical knowledge training on—
      - (A) The aeronautical knowledge areas that are applicable to the level of pilot license, category rating, class rating, or instrument rating sought;
      - (B) Safe piloting operating practices and procedures; and
      - (C) Applicable provisions of Parts 2 and 9.
    - (ii) 6 hours of flight training on the areas of operation that are applicable to the level of pilot license, aircraft category and class rating, or instrument rating, as appropriate, for performing pilot-in-command duties and responsibilities.
- (j) Flight instructor refresher course.
  - (1) Each applicant for, and holder of, a special preparation flight instructor refresher course shall include at least a combined total of 16 hours of aeronautical knowledge training, flight training, or any combination of ground and flight training on the following:
    - (i) Aeronautical knowledge training on—
      - (A) The aeronautical knowledge areas that apply to student, private, and commercial pilot licenses and instrument ratings;
      - (B) The aeronautical knowledge areas that apply to flight instructor certificates;
      - (C) Safe piloting operating practices and procedures, including airport operations and operating in the Cambodia Airspace System; and
      - (D) Applicable provisions of Parts 2 and 9.
    - (ii) Flight training, to review—
      - (A) The areas of operations applicable to student, private, and commercial pilot licenses and instrument ratings; and
      - (B) The skills, competency, and proficiency for performing flight instructor duties and responsibilities.
- (k) Ground instructor refresher course.
  - (1) A special preparation ground instructor refresher course shall include at least 16 hours of aeronautical knowledge training on—
    - (i) The aeronautical knowledge areas that apply to student, private, and commercial pilots and instrument rated pilots and ground instructors;
    - (ii) Safe piloting operating practices and procedures, including airport operations and operating in the Cambodia Airspace System; and
    - (iii) Applicable provisions of Parts 2 and 9.

#### IS: 3.2.1.1 APPENDIX K: PILOT GROUND SCHOOL COURSE

- (a) Applicability. This appendix prescribes the minimum curriculum for a pilot ground school course.
- (b) General requirements. Each applicant for, and holder of, an approved training course for a pilot ground school shall include training on the aeronautical knowledge areas that are—
  - (1) Needed to safely exercise the privileges of the certificate, rating, or authority for which the course is established; and
  - (2) Conducted to develop competency, proficiency, resourcefulness, self-confidence, and self-reliance in each student.
- (c) Aeronautical knowledge training requirements. Each applicant for, and holder of, an approved pilot ground school course shall include—

- (1) The aeronautical knowledge training that is appropriate to the aircraft rating and pilot license level for which the course applies; and
  - (2) An adequate number of total aeronautical knowledge training hours appropriate to the aircraft rating and pilot license level for which the course applies.
- (d) Stage checks and end-of-course tests. Each person, to graduate from a pilot ground school course shall satisfactorily accomplish the stage checks and end-of-course tests, consisting of the areas of operation that are appropriate to the operating privileges or authorisation that graduation from the course will permit.

### IS: 3.2.1.1 APPENDIX L: AME AIRFRAME AND/OR POWERPLANT RATING

## Curriculum Requirements

This appendix defines terms used in Section A, B, and C of this part, and describes the levels of proficiency at which items under each subject in each curriculum must be taught, as outlined in Sections A, B, and C.

- (a) Definitions. As used in Sections A, B, and C:
- (1) "Inspect" means to examine by sight and touch.
  - (2) "Check" means to verify proper operation.
  - (3) "Troubleshoot" means to analyse and identify malfunctions.
  - (4) "Service" means to perform functions that assure continued operation.
  - (5) "Repair" means to correct a defective condition. Repair of an airframe or power plant system includes component replacement and adjustment, but not component repair.
  - (6) "Overhaul" means to disassemble, inspect, repair as necessary, and check.
- (b) Teaching levels.
- (1) Level 1 requires:
    - (i) Knowledge of general principles, but no practical application.
    - (ii) No development of manipulative skill.
    - (iii) Instruction by lecture, demonstration, and discussion.
  - (2) Level 2 requires:
    - (i) Knowledge of general principles, and limited practical application.
    - (ii) Development of sufficient manipulative skill to perform basic operations.
    - (iii) Instruction by lecture, demonstration, discussion, and limited practical application.
  - (3) Level 3 requires:
    - (i) Knowledge of general principles, and performance of a high degree of practical application.
    - (ii) Development of sufficient manipulative skills to simulate return to service.
    - (iii) Instruction by lecture, demonstration, discussion, and a high degree of practical application.
- (c) Teaching materials and equipment.
- (1) The curriculum may be presented utilising currently accepted educational materials and equipment, including, but not limited to: calculators, computers, and audio-visual equipment.

## Section A – General Curriculum Subjects

This section list the subjects required for at least 400 hours of general curriculum subjects. The number in parentheses before each item listed under each subject heading indicates the level of proficiency at which that item shall be taught.

Teaching  
Level

### A. BASIC ELECTRICITY

- (2) 1. Calculate and measure capacitance and inductance.

- (2) 2. Calculate and measure electrical power.
- (3) 3. Measure voltage, current, resistance, and continuity.
- (3) 4. Determine the relationship of voltage, current, and resistance in electrical circuits.
- (3) 5. Read and interpret aircraft electrical circuit diagrams, including solid state devices and logic functions.
- (3) 6. Inspect and service batteries.

#### B. AIRCRAFT DRAWINGS

- (2) 7. Use aircraft drawings, symbols, and system schematics.
- (3) 8. Draw sketches of repairs and alterations.
- (3) 9. Use blueprint information.
- (3) 10. Use graphs and charts.

#### C. WEIGHT AND BALANCE

- (2) 11. Weigh aircraft.
- (3) 12. Perform complete weight and balance check and record data.

#### D. FLUID LINES AND FITTINGS

- (3) 13. Fabricate and install rigid and flexible fluid lines and fittings.

#### E. MATERIALS AND PROCESSES

- (1) 14. Identify and select appropriate nondestructive testing methods.
- (2) 15. Perform dye penetrate, eddy current, ultrasonic, and magnetic particle inspections.
- (1) 16. Perform basic heat treating processes.
  
- (3) 17. Identify and select aircraft hardware and materials.
- (3) 18. Inspect and check welds.
- (3) 19. Perform precision measurements.

#### F. GROUND OPERATION AND SERVICING

- (2) 20. Start, ground operate, move, service, and secure aircraft and identify typical ground operation hazards.
- (2) 21. Identify and select fuels.

#### G. CLEANING AND CORROSION CONTROL

- (3) 22. Identify and select cleaning materials.
- (3) 23. Inspect, identify, remove, and treat aircraft corrosion and perform aircraft cleaning.

Teaching  
level

#### H. MATHEMATICS

- (3) 24. Extract roots and raise numbers to a given power.
- (3) 25. Determine areas and volumes of various geometric shapes.
- (3) 26. Solve ratio, proportion, and percentage problems.
- (3) 27. Perform algebraic operations involving addition, subtraction, multiplication, and division of positive and negative numbers.

#### I. MAINTENANCE FORMS AND RECORDS

- (3) 28. Write descriptions of work performed including aircraft discrepancies and corrective actions using typical aircraft maintenance records.
- (3) 29. Complete required maintenance forms, records, and inspection reports.

#### J. BASIC PHYSICS

- (2) 30. Use and understand the principles of simple machines; sound, fluid, and heat dynamics; basic aerodynamics; aircraft structures; and theory of flight.

K. MAINTENANCE PUBLICATIONS

- (3) 31. Demonstrate ability to read, comprehend, and apply information contained in the SSCA and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications, and related SSCA Regulations, Airworthiness Directives, and Advisory Material.
- (3) 32. Read technical data.

L. MECHANIC PRIVILEGES AND LIMITATIONS

- (3) 33. Exercise mechanic privileges within the limitations prescribed by Part 2 of these regulations.

## Section B - Airframe Curriculum Subjects

This section list the subjects required in at least 750 hours of each airframe curriculum, in addition to at least 400 hours in general curriculum subjects. The number in parentheses before each item listed under each subject heading indicates the level of proficiency at which that item must be taught.

### I. AIRFRAME STRUCTURES

Teaching  
level

#### A. WOOD STRUCTURES

- (1) 1. Service and repair wood structures.
- (1) 2. Identify wood defects.
- (1) 3. Inspect wood structures.

#### B. AIRCRAFT COVERING

- (1) 4. Select and apply fabric and fiberglass covering materials.
- (1) 5. Inspect, test, and repair fabric and fiberglass.

#### C. AIRCRAFT FINISHES

- (1) 6. Apply trim, letters, and touchup paint.
- (2) 7. Identify and select aircraft finishing materials.
- (2) 8. Apply finishing materials.
- (2) 9. Inspect finishes and identify defects.

Teaching  
level

#### D. SHEET METAL AND NONMETALLIC STRUCTURES

- (2) 10. Select, install, and remove special fasteners for metallic, bonded, and composite structures.
- (2) 11. Inspect bonded structures.
- (2) 12. Inspect, test and repair fiberglass, plastics, honeycomb, composite, and laminated primary and secondary structures.
- (2) 13. Inspect, check, service, and repair windows, doors, and interior furnishings.
- (3) 14. Inspect and repair sheet metal structures.
- (3) 15. Install conventional rivets.
- (3) 16. Form, layout, and bend sheet metal.

#### E. WELDING

- (1) 17. Weld magnesium and titanium.
- (1) 18. Solder stainless steel.
- (1) 19. Fabricate tubular structures.
- (2) 20. Solder, braze, gas weld, and arc weld steel.
- (1) 21. Weld aluminum and stainless steel.

F. ASSEMBLY AND RIGGING

- (1) 22. Rig rotary wing aircraft.
- (2) 23. Rig fixed wing aircraft.
- (2) 24. Check alignment of structures.
- (3) 25. Assemble aircraft components, including flight control surfaces.
- (3) 26. Balance, rig, and inspect moveable primary and secondary flight control surfaces.
- (3) 27. Jack aircraft.

G. AIRFRAME INSPECTION

- (3) 28. Perform airframe conformity and airworthiness inspections.

II. AIRFRAME SYSTEMS AND COMPONENTS

A. AIRCRAFT LANDING GEAR SYSTEMS

- (3) 29. Inspect, check, service, and repair landing gear, retraction systems, shock struts, brakes, wheels, tires, and steering systems.

B. HYDRAULIC AND PNEUMATIC POWER SYSTEMS

- (2) 30. Repair hydraulic and pneumatic power systems components.
- (3) 31. Identify and select hydraulic fluids.
- (3) 32. Inspect, check, service, troubleshoot, and repair hydraulic and pneumatic power systems.

C. CABIN ATMOSPHERE CONTROL SYSTEMS

- (1) 33. Inspect, check, troubleshoot, service, and repair heating, cooling, air conditioning, pressurization systems, and air cycle machines.
- (1) 34. Inspect, check, troubleshoot, service, and repair heating, cooling, air conditioning, and pressurization systems.
- (2) 35. Inspect, check, troubleshoot, service and repair oxygen systems.

D. AIRCRAFT INSTRUMENT SYSTEMS

- (1) 36. Inspect, check, service, troubleshoot, and repair electronic flight instrument systems and both mechanical and electrical heading, speed, altitude, temperature, pressure, and position indicating systems to include the use of built-in test equipment.
- (2) 37. Install instruments and perform a static pressure system leak test.

E. COMMUNICATION AND NAVIGATION SYSTEMS

- (1) 38. Inspect, check, and troubleshoot autopilot, servos, and approach coupling systems.
- (1) 39. Inspect, check, and service aircraft electronic communication and navigation systems, including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS, LORAN, Radar beacon transponders, flight management computers, INS/ANS, GPS and GPWS.
- (2) 40. Inspect and repair antenna and electronic equipment installations.

F. AIRCRAFT FUEL SYSTEMS

- (1) 41. Check and service fuel dump systems.
- (1) 42. Perform fuel management transfer, and defueling.
- (1) 43. Inspect, check, and repair pressure-fueling systems.
- (2) 44. Repair aircraft fuel system components.
- (2) 45. Inspect and repair fluid quantity indicating systems.
- (2) 46. Troubleshoot, service, and repair fluid pressure and temperature warning systems.
- (3) 47. Inspect, check, service, troubleshoot, and repair aircraft fuel systems.

G. AIRCRAFT ELECTRICAL SYSTEMS

- (2) 48. Repair and inspect aircraft electrical system components; crimp and splice wiring to manufacturers'

specifications, and repair pins and sockets of aircraft connectors.

- (3) 49. Install, check, and service airframe electrical wiring, controls, switches, indicators, and protective devices.
- (3) 50.a. Inspect, check, troubleshoot, service, and repair alternating and direct current electrical systems.
- (1) 50.b. Inspect, check, and troubleshoot constant speed and integrated speed drive generators.

#### H. POSITION AND WARNING SYSTEMS

- (2) 51. Inspect, check, and service speed and configuration warning systems, electrical brake controls, and antiskid systems.
- (3) 52. Inspect, check, troubleshoot and service landing gear position indicating and warning systems.

#### I. ICE AND RAIN CONTROL SYSTEMS

- (2) 53. Inspect, check, troubleshoot, service, and repair airframe ice and rain control systems.

#### J. FIRE PROTECTION SYSTEMS

- (1) 54. Inspect, check, and service smoke and carbon monoxide detection systems.
- (3) 55. Inspect, check, service, troubleshoot, and repair aircraft fire detection and extinguishing systems.

## Section C - Powerplant Curriculum Subjects

This section list the subjects required in at least 750 hours of each powerplant curriculum, in addition to at least 400 hours in general curriculum subjects.

The number in parentheses before each item listed under each subject heading indicates the level of proficiency at which that item must be taught.

### I. POWERPLANT THEORY AND MAINTENANCE

Teaching  
level

#### A. RECIPROCATING ENGINES

- (1) 1. Inspect and repair a radial engine.
- (2) 2. Overhaul reciprocating engine.
- (3) 3. Inspect, check, service, and repair reciprocating engines and engine installations.
- (3) 4. Install, troubleshoot, and remove reciprocating engines.

#### B. TURBINE ENGINES

- (2) 5. Overhaul turbine engine.
- (3) 6. Inspect, check, service, and repair turbine engines and turbine engine installations.
- (3) 7. Install, troubleshoot, and remove turbine engines.

#### C. ENGINE INSPECTION

- (3) 8. Perform powerplant conformity and airworthiness inspections.

### II. POWERPLANT SYSTEMS AND COMPONENTS

#### A. ENGINE INSTRUMENT SYSTEMS

- (2) 9. Troubleshoot, service, and repair electrical and mechanical fluid rate-of-flow indicating systems.
- (3) 10. Inspect, check, service, troubleshoot, and repair electrical and mechanical engine temperature, pressure, and rpm indicating systems.

#### B. ENGINE FIRE PROTECTION SYSTEMS

- (3) 11. Inspect, check, service, troubleshoot, and repair engine fire detection and extinguishing systems.

C. ENGINE ELECTRICAL SYSTEMS

- (2) 12. Repair engine electrical system components.
- (3) 13. Install, check, and service engine electrical wiring, controls, switches, indicators, and protective devices.

D. LUBRICATION SYSTEMS

- (2) 14. Identify and select lubricants.
- (2) 15. Repair engine lubrication system components.
- (3) 16. Inspect, check, service, troubleshoot, and repair engine lubrication systems.

E. IGNITION AND STARTING SYSTEMS

- (2) 17. Overhaul magneto and ignition harness.
- (2) 18. Inspect, service, troubleshoot, and repair reciprocating and turbine engine ignition systems and components.
- (3) 19.a. Inspect, service, troubleshoot, and repair turbine engine electrical starting systems.
- (1) 19.b. Inspect, service, and troubleshoot turbine engine pneumatic starting systems.

Teaching  
level

F. FUEL METERING SYSTEMS

- (1) 20. Troubleshoot and adjust turbine engine fuel metering systems and electronic engine fuel controls.
- (2) 21. Overhaul carburetor.
- (2) 22. Repair engine fuel metering system components.
- (3) 23. Inspect, check, service, troubleshoot, and repair reciprocating and turbine engine fuel metering systems.

G. ENGINE FUEL SYSTEMS

- (2) 24. Repair engine fuel system components.
- (3) 25. Inspect, check, service, troubleshoot, and repair engine fuel systems.

H. INDUCTION AND ENGINE AIRFLOW SYSTEMS

- (2) 26. Inspect, check, troubleshoot, service, and repair engine ice and rain control systems.
- (1) 27. Inspect, check, service, troubleshoot and repair heat exchangers, superchargers, and turbine engine airflow and temperature control systems.
- (3) 28. Inspect, check, service, and repair carburetor air intake and induction manifolds.

I. ENGINE COOLING SYSTEMS

- (2) 29. Repair engine cooling system components.
- (3) 30. Inspect, check, troubleshoot, service, and repair engine cooling systems.

J. ENGINE EXHAUST AND THRUST REVERSER SYSTEMS

- (2) 31. Repair engine exhaust system components.
- (3) 32.a. Inspect, check, troubleshoot, service, and repair engine exhaust systems.
- (1) 32.b. Troubleshoot and repair engine thrust reverser systems and related components.

K. PROPELLERS

- (1) 33. Inspect, check, service, and repair propeller synchronizing and ice control systems.
- (2) 34. Identify and select propeller lubricants.
- (1) 35. Balance propellers.
- (2) 36. Repair propeller control system components.
- (3) 37. Inspect, check, service, and repair fixed pitch, constant speed, and feathering propellers, and propeller governing systems.
- (3) 38. Install, troubleshoot, and remove propellers.
- (3) 39. Repair aluminum alloy propeller blades.

L. UNDUCTED FANS

- (1) 40. Inspect and troubleshoot unducted fan systems and components.

M. AUXILIARY POWER UNITS

- (1) 41. Inspect, check, service, and troubleshoot turbine driven auxiliary power units.

**IS: 3.2.1.1 APPENDIX M: FLIGHT ENGINEER COURSE**

- (a) Each flight engineer training course holder shall comply with the following—

(1) Training course outline:

- (i) Format. An applicant shall prepare separate course outlines for each type of aeroplane.
- (ii) Ground course outline.
- (iii) The SSCA will accept any arrangement of subjects if all the subject material listed here is included and at least the minimum programmed hours are assigned to each subject.
- (iv) If any flight engineer training course holder desires to include additional subjects in the ground course curriculum, the hours allotted these additional subjects may not be included in the minimum programmed classroom hours.
- (v) All subjects, except *Theory of Flight and Aerodynamics* and *Regulations*, shall apply to the same type of aeroplane in which the flight engineer training course holder presents training.

Subject Area		Classroom Hours
Civil Aviation Regulations		10
Theory of Flight and Aerodynamics		10
Aeroplane Familiarisation, to include, as applicable:	Specifications Construction features Flight controls Hydraulic systems Pneumatic systems Electrical systems Anti-icing and de-icing systems Pressurisation and air-conditioning systems Vacuum systems Pilot static systems Instrument systems Fuel and oil systems Emergency equipment	90
Engine Familiarisation, to include, as applicable:	Specifications Construction features Lubrication Ignition Fuel systems Accessories Propellers Instrumentation Emergency equipment	45
Normal Operations (Ground and Flight), to include, as appropriate	Servicing methods and procedures Operation of all the aeroplane systems Operation of all the engine systems Loading and centre of gravity computations	50

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CIVIL AVIATION REGULATIONS

Implementing Standards: Part 3

	Cruise control (normal, long range, maximum endurance) Power and fuel computation Meteorology as applicable to engine operation	
Emergency Operations, to include	Landing gear, brakes, flaps, speed brakes, and leading edge devices Pressurisation and air-conditioning Portable fire extinguishers Fuselage fire and smoke control Loss of electrical power Engine fire control Engine shut-down and restart Oxygen	80
Total (exclusive of final tests)		235

(2) Flight Course Outline.

- (i) The flight training curriculum shall include at least 10 hours of flight instruction in an aeroplane. A student may not credit the flight time required for the practical test as part of the required flight instruction.
- (ii) The flight engineer training course holder shall present all of the flight training in the same type aircraft.
- (iii) As appropriate to the aircraft type, the flight engineer training course holder shall teach the following subjects in the flight training course:

<b>Subject Area</b>	
Normal Duties, Procedures And Operations	To include as appropriate— Aeroplane preflight. Engine starting, power checks, pre-takeoff, post landing and shut-down procedures. Power control. Temperature control. Engine operation analysis. Operation of all systems. Fuel management. Logbook entries. Pressurization and air conditioning.
Recognition And Correction Of In-Flight Malfunctions	Analysis of abnormal engine operation. Analysis of abnormal operation of all systems. Corrective action.
Emergency Operations In Flight	Engine fire control. Fuselage fire control. Smoke control. Loss of power or pressure in each system. Engine overspeed. Fuel dumping. Landing gear, spoilers, speed brakes, and flap extension and retraction. Engine shut-down and restart. Use of oxygen.

- (iv) The SSCA may allow the school to teach the flight training time in a flight simulator.

- (v) To obtain credit for flight training time in an flight simulator, the student shall occupy the flight engineer station and operate the controls.
- (b) Revisions. Each flight engineer training course holder shall request revisions of the course outlines, facilities or equipment by following the procedures for original approval of the course.
- (c) Ground school credits.
  - (1) A flight engineer training course holder may grant credit to a student in the ground school course for comparable previous training or experience that the student can show by written evidence—
  - (2) A flight engineer training course holder shall meet the quality of instruction described in this Appendix.
  - (3) Before granting credit for previous training or experience, the flight engineer training course holder shall ensure that the student passes a test given by the flight engineer training course holder on the subject for which the credit is to be given.
  - (4) The flight engineer training course holder shall incorporate results of the test, the basis for credit allowance, and the hours credited as part of the student's records.
- (d) Records and reports.
  - (1) The flight engineer training course holder shall maintain, for at least two years after a student graduates, fails, or drops from a course, a record of the student's training, including a chronological log of the subject course, attendance examinations, and grades.
  - (2) Except as provided in paragraph (3), the flight engineer training course holder shall submit to the SSCA, not later than January 31 of each year, a report for the previous calendar year's training, to include—
    - (i) Name, enrolment and graduation date of each student;
    - (ii) Ground school hours and grades of each student;
    - (iii) Flight and flight simulator hours, and grades of each student; and
    - (iv) Names of students failed or dropped, together with their school grades and reasons for dropping.
  - (3) Upon request, the SSCA may waive the reporting requirements of subparagraph (2) of this paragraph for an approved flight engineer course that is part of an approved training course under Part 9.
- (e) Quality of instruction.
  - (1) The SSCA shall revoke approval of a flight engineer training course holder's ground course whenever less than 80 percent of the students pass the SSCA knowledge test on the first attempt.
  - (2) The SSCA shall revoke approval of a flight engineer training course holder's flight course whenever less than 80 percent of the student's pass the SSCA practical test on the first attempt.
  - (3) Notwithstanding paragraphs (1) and (2), the SSCA may allow continued approval of a ground or flight course when the SSCA finds—
    - (i) That the failure rate was based on less than a representative number of students; or
    - (ii) That the flight engineer training course holder has taken satisfactory means to improve the effectiveness of the training.
- (f) Time limitation. Each student shall apply for the written test and the flight test within 90 days after completing the ground school course.
- (g) Statement of course completion.
  - (1) Each flight engineer training course holder shall give to each student who successfully completes an approved flight engineer ground school training course, and passes the SSCA knowledge test, a statement of successful completion of the course that indicates the date of

- training, the type of aeroplane on which the ground course training was based, and the number of hours received in the ground school course.
- (2) Each flight engineer training course holder shall give each student who successfully completes an approved flight engineer flight course, and passed the SSCA practical test, a statement of successful completion of the flight course that indicates the dates of the training, the type of aeroplane used in the flight course, and the number of hours received in the flight course.
  - (3) A flight engineer training course holder who is approved to conduct both the ground course and the flight course may include both courses in a single statement of course completion if the provisions of paragraphs (1) and (2) of this subsection are included.
  - (4) The requirements of this paragraph do not apply to an AOC holder with an approved training course under Part 9, providing the student receives a flight engineer license upon completion of that course.
- (h) Duration. Except for a course operated as part of an approved training course under of Part 9, the approval to operate a flight engineer ground course or flight course terminates 24 months after the last day of the month of issue.

### IS: 3.2.1.2 LEVEL 1 ATO CHIEF FLIGHT INSTRUCTOR QUALIFICATIONS

- (a) Each ATO shall designate a supervisory instructor for a flight training course who shall meet one or more of the following requirements, as applicable:
  - (1) Hold a commercial pilot license or an airline transport pilot license, and, except for a chief instructor for a training course solely for a lighter-than-air rating, a current flight instructor license with appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course.
  - (2) Meet the pilot in command recent flight experience requirements of 8.4.1.9 through 8.4.1.11, as applicable.
  - (3) Pass a knowledge test on —
    - (i) Teaching methods;
    - (ii) Applicable provisions of SSCA provided aeronautical information publications;
    - (iii) Applicable provisions of Parts 2, 3, and 8; and
    - (iv) The objectives and approved course completion standards of the course for which the person seeks to obtain designation.
  - (4) Pass a proficiency test on instructional skills and ability to train students on the flight procedures and manoeuvres appropriate to the course.
- (b) Except for a training course for gliders, balloons, or airships, the chief instructor shall meet the applicable requirements in paragraphs (c), (d), and (e).
- (c) For a training course for a private pilot license or rating, a chief instructor shall have—
  - (1) At least 1,000 hours as pilot in command; and
  - (2) Primary flight training experience as a licensed flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least 2 years and a total of 500 flight hours.
- (d) For a training course for an instrument rating or a rating with instrument privileges, a chief instructor shall have—
  - (1) At least 100 hours of flight time under actual or simulated instrument conditions;
  - (2) At least 1,000 hours as pilot in command; and
  - (3) Instrument flight instructor experience as a licensed flight instructor-instrument or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—
    - (i) 2 years and a total of 250 flight hours; or
    - (ii) 400 flight hours of instrument flight instruction.

- (e) For a training course for other than a private pilot license or rating, or an instrument rating or a rating with instrument privileges, a chief instructor shall have—
  - (1) At least 2,000 hours as pilot in command; and
  - (2) Flight training experience as a licensed flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least 3 years and a total of 1,000 flight hours.
- (f) A chief instructor for a training course for gliders or balloons is required to have only 40 percent of the hours required in paragraphs (c) and (e).
- (g) A chief instructor for a training course for airships is required to have only 40 percent of the hours required in paragraphs (c), (d), and (e).
- (h) To be eligible as chief instructor for a ground school course, a person shall have one year of experience as a ground school instructor at a certified Level 1 ATO.

#### IS: 3.2.2.2 AIRPORT REQUIREMENTS

- (a) Each applicant for, and holder of, a Level 1 ATO certificate shall show that the airport at which training flights originate has the following.
  - (1) At least one runway or takeoff area that allows training aircraft to make a normal takeoff and landing at the aircraft's maximum certified takeoff gross weight under the following conditions —
    - (i) Wind not more than 5 knots;
    - (ii) Temperatures equal to the mean high temperature for the hottest month of the year in the operating area;
    - (iii) If applicable, with the powerplant operation, and landing gear and flap operation recommended by the manufacturer; and
    - (iv) In the case of a takeoff—
      - (A) With smooth transition from liftoff to the best rate of climb speed without exceptional piloting skills or techniques; and
      - (B) Clearing all obstacles in the takeoff flight path by at least 50 feet.
  - (2) A wind direction indicator that is visible from the end of each runway at ground level.
  - (3) A traffic direction indicator when—
    - (i) The airport does not have an operating control tower; and
    - (ii) Traffic and wind advisories are not available.
  - (4) Except as provided in paragraph (a)(5), permanent runway lights if that airport is to be used for night training flights.
  - (5) Adequate non-permanent lighting or shoreline lighting for an airport or seaplane base for night training flights in seaplanes, if approved by the SSCA.

#### IS: 3.2.4.2 LEVEL 2 ATO INSTRUCTOR TRAINING AND TESTING REQUIREMENTS

- (a) Prior to initial designation, each flight and simulator flight instructor shall complete the following requirements—
  - (1) Complete at least 8 hours of ground training on the following subject matter:
    - (i) Instruction methods and techniques.
    - (ii) Training policies and procedures.
    - (iii) The fundamental principles of the learning process.
    - (iv) Instructor duties, privileges, responsibilities, and limitations.
    - (v) Proper operation of simulation controls and systems.
    - (vi) Proper operation of environmental control and warning or caution panels.
    - (vii) Limitations of simulation.
    - (viii) Minimum equipment requirements for each curriculum.
    - (ix) Revisions to the training courses.

- (x) Cockpit resource management and crew co-ordination.
- (2) Satisfactorily complete a knowledge test—
  - (i) On the subjects specified in paragraph (a)(1); and
  - (ii) That is accepted by the SSCA as being of equivalent difficulty, complexity, and scope as the tests provided by the SSCA for the flight instructor aeroplane and instrument flight instructor knowledge tests.
- (b) Each certificate holder shall ensure that each instructor who instructs in a flight simulator that the SSCA has approved for all training and all testing for the airline transport pilot licensing test, aircraft type rating test, or both, has met at least one of the following requirements:
  - (1) Each instructor shall have performed 2 hours in flight, including three takeoffs and three landings as the sole manipulator of the controls of an aircraft of the same category and class, and, if a type rating is required, of the same type replicated by the approved flight simulator in which that instructor is designated to instruct;
  - (2) Each instructor shall have participated in an approved line-observation program as specified in 8.10.1.43, and that—
    - (i) Was accomplished in the same aeroplane type as the aeroplane represented by the flight simulator in which that instructor is designated to instruct; and
    - (ii) Included line-oriented flight training of at least 1 hour of flight during which the instructor was the sole manipulator of the controls in a flight simulator that replicated the same type aircraft for which that instructor is designated to instruct.

#### IS: 3.2.4.7 LEVEL 1 ATO CHIEF INSTRUCTOR QUALIFICATIONS

- (a) Each ATO shall designate a supervisory instructor for a flight training course who shall meet one or more of the following requirements, as applicable:
  - (1) Hold a commercial pilot license or an airline transport pilot license, and, except for a chief instructor for a training course solely for a lighter-than-air rating, a current flight instructor license with appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course.
  - (2) Meet the pilot in command recent flight experience requirements of 8.4.1.9 through 8.4.1.11, as applicable.
  - (3) Pass a knowledge test on —
    - (i) Teaching methods;
    - (ii) Applicable provisions of SSCA provided aeronautical information publications;
    - (iii) Applicable provisions of Parts 2, 3, and 8; and
    - (iv) The objectives and approved course completion standards of the course for which the person seeks to obtain designation.
  - (4) Pass a proficiency test on instructional skills and ability to train students on the flight procedures and manoeuvres appropriate to the course.
- (b) Except for a training course for gliders, balloons, or airships, the chief instructor shall meet the applicable requirements in paragraphs (c), (d), and (e).
- (c) For a training course for a private pilot license or rating, a chief instructor shall have—
  - (1) At least 1,000 hours as pilot in command; and
  - (2) Primary flight training experience as a licensed flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least 2 years and a total of 500 flight hours.
- (d) For a training course for an instrument rating or a rating with instrument privileges, a chief instructor shall have—
  - (1) At least 100 hours of flight time under actual or simulated instrument conditions;
  - (2) At least 1,000 hours as pilot in command; and
  - (3) Instrument flight instructor experience as a licensed flight instructor-instrument or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least—

- (i) 2 years and a total of 250 flight hours; or
  - (ii) 400 flight hours of instrument flight instruction.
- (e) For a training course for other than a private pilot license or rating, or an instrument rating or a rating with instrument privileges, a chief instructor shall have—
- (1) At least 2,000 hours as pilot in command; and
  - (2) Flight training experience as a licensed flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least 3 years and a total of 1,000 flight hours.
- (f) A chief instructor for a training course for gliders or balloons is required to have only 40 percent of the hours required in paragraphs (c) and (e).
- (g) A chief instructor for a training course for airships is required to have only 40 percent of the hours required in paragraphs (c), (d), and (e).
- (h) To be eligible as chief instructor for a ground school course, a person shall have one year of experience as a ground school instructor at a certified Level 1 ATO.

**IS: 3.2.4.8 LEVEL 1 ATO ASSISTANT CHIEF INSTRUCTOR QUALIFICATIONS**

- (a) To be eligible for designation as an assistant chief instructor, a person shall meet the following requirements.
- (1) Hold a commercial pilot or an airline transport pilot license and, except for the assistant chief instructor for a training course for a lighter-than-air rating, a current flight instructor license with appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course.
  - (2) Meet the pilot in command recent flight experience requirements of 8.4.1.9 through 8.4.1.11, as applicable.
  - (3) Pass a knowledge test on—
    - (i) Teaching methods;
    - (ii) Applicable provisions of the Cambodia-provided aeronautical information publications;
    - (iii) Applicable provisions of Parts 2, 3, and 8; and
    - (iv) The objectives and approved course completion standards of the course for which the person seeks to obtain designation.
  - (4) Pass a proficiency test on the flight procedures and manoeuvres appropriate to that course.
  - (5) Meet the applicable requirements in paragraphs (b), (c), and (d), except that an assistant chief instructor for a training course for gliders, balloons, or airships is required to have only 40 percent of the hours required in paragraphs (b) and (c).
- (b) For a training course for a private pilot license or rating, an assistant chief instructor shall have—
- (1) At least 500 hours as pilot in command; and
  - (2) Flight training experience as a licensed flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least 1 year and a total of 250 flight hours.
- (c) For a training course for an instrument rating or a rating with instrument privileges, an assistant chief flight instructor shall have—
- (1) At least 50 hours of flight time under actual or simulated instrument conditions;
  - (2) At least 500 hours as pilot in command; and
  - (3) Instrument flight instructor experience as a licensed flight instructor-instrument or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least 1 year and a total of 125 flight hours.
- (d) For a training course other than for a private pilot license or rating, or an instrument rating or a rating with instrument privileges, an assistant chief instructor shall have—
- (1) At least 1,000 hours as pilot in command; and

- (2) Flight training experience as a licensed flight instructor or an instructor in a military pilot flight training program, or a combination thereof, consisting of at least 1 1/2 years and a total of 500 flight hours.
- (e) To be eligible for designation as an assistant chief instructor for a ground school course, a person shall have 6 months of experience as a ground school instructor at a certified Level 1 ATO.

#### IS: 3.2.4.9 LEVEL 1 ATO CHECK INSTRUCTOR QUALIFICATIONS

- (a) To be designated as a check instructor for conducting student stage checks, end-of-course tests, and instructor proficiency checks under this Part, a person shall meet the following requirements, as applicable.
  - (1) Pass a test, given by the chief instructor, on—
    - (i) Teaching methods;
    - (ii) Applicable provisions of the Cambodia-provided aeronautical information publications;
    - (iii) Applicable provisions of Parts 2, 8, and this Part; and
    - (iv) The objectives and course completion standards of the approved training course for the designation sought.
  - (2) For flight checks and tests—
    - (i) Meet the requirements in paragraph (a)(1);
    - (ii) Hold a commercial pilot license or an airline transport pilot license and, except for a check instructor for a training course for a lighter-than-air rating, a current flight instructor license, with appropriate aircraft category, class, and instrument ratings for the category and class of aircraft used in the course;
    - (iii) Meet the pilot in command recent flight experience requirements of 8.4.1.9 through 8.4.1.11, as applicable; and
    - (iv) Pass a proficiency test, given by the chief instructor or assistant chief instructor, on the flight procedures and manoeuvres of the approved training course.
  - (3) For checks and tests that relate to ground training—
    - (i) Meet the requirements in paragraph (a)(1);
    - (ii) Except for a training course for a lighter-than-air rating, hold a current flight instructor license or ground instructor license with ratings appropriate to the category and class of aircraft used in the course; and
    - (iii) For a training course for a lighter-than-air rating, hold a commercial pilot license with a lighter-than-air category rating and the appropriate class rating.
- (b) Before functioning as a check instructor, a person who meets the eligibility requirements in paragraph (a) shall—
  - (1) Be designated in writing by the chief instructor to conduct student stage checks, end-of-course tests, and instructor proficiency checks; and
  - (2) Be approved by the SSCA.
- (c) A check instructor may not conduct a stage check or an end-of-course test of any student for whom the check instructor has—
  - (1) Served as the principal instructor; or
  - (2) Recommended for a stage check or end-of-course test.

#### IS: 3.2.5.2 TRANSFER PRIVILEGES

- (a) A Level 1 ATO receiving a student from another Level 1 ATO may credit that pilot's previous experience towards the curriculum requirements of a course subject to the following conditions:
  - (1) If the credit is based upon 3.2.5.2 or 3.4.2.6, the gaining ATO may credit that student not more than 50 percent of the curriculum requirements;
  - (2) If the credit is not based upon 3.2.5.2 or 3.4.2.6, the gaining ATO may credit that student not more than 25 percent of the curriculum requirements;

*Note: The receiving ATO shall determine the amount of course credit to be credited under paragraph (1) or paragraph (2), based on a proficiency test or knowledge test, or both, of the student; and*

- (b) The receiving ATO may grant credit for training specified in paragraph (a)(1) or paragraph (2) only if the previous provider of the training has certified the kind and amount of training provided, and the result of each stage check and end-of-course test, if applicable, given to the student.
- (c) An AME training course holder may evaluate and grant credit for an entrant's previous training provided—
  - (1) The AME training course holder determines that the training is verifiable and comparable to portions of the training program.
  - (2) The individual requesting credit passes an examination given by the AME training course holder, which is equivalent to those examinations given by the AME training course holder for the same subject in the training program.

#### IS: 3.2.5.5 TRAINING COURSE: CONTENTS

- (a) Each applicant for, and holder of, a Level 1 ATO certificate shall ensure that each training course contains—
  - (1) A description of each flight simulator or flight training device used for training;
  - (2) A listing of the airports at which training flights originate and a description of the facilities, including pilot briefing areas that are available for use by the school's students and personnel at each of those airports;
  - (3) A description of the type of aircraft including any special equipment used for each phase of training.
  - (4) The minimum qualifications and ratings for each instructor assigned to ground or flight training; and
  - (5) A training syllabus that includes—
    - (i) The prerequisites for enrolling in the ground and flight portion of the course that include the pilot license and rating (if required by this Part), training, pilot experience, and pilot knowledge;
    - (ii) A detailed description of each lesson, including the lesson's objectives, standards, and planned time for completion;
    - (iii) Course learning objectives;
    - (iv) Stage learning objectives and standards; and
    - (v) A description of the checks and tests to be used to measure learning after each stage of training.
- (b) A Level 1 ATO may—
  - (1) Include training in a flight simulator or flight training device, provided it is representative of the aircraft for which the course is approved, meets the requirements of this paragraph, and the training is given by an authorised instructor; and
  - (2) Permit a student to credit training in a flight simulator that meets the requirements of 3.2.2.4 for a maximum of 25 percent of the total flight training hour requirements of the approved course.