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BELIZE
DEPARTMENT OF CIVIL AVIATION
AERONAUTICAL INFORMATION SERVICE

AIC
C008/21
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Airline Transport Pilot License - Aeronautical Knowledge and Flight Skill Requirement

1.0 Introduction

1.1 A person wishing to apply for an Airline Transport Pilot License must meet the requirements stipulated in BCAR APL 3.33.1 Airline Transport Pilot license general requirements.

2.0 Purpose

2.1 The purpose of this AIC is to introduce the BCAR APL requirements and the approved procedure to obtain an Airline Transport Pilot License.

3.0 Requirements to obtain an Airline Transport Pilot License:

3.1 An applicant for an airline transport pilot license, under BCAR-APL 3.33, shall provide evidence to the Director that he/she has received and logged ground training from an approved aviation training organization or authorized instructor on the required aeronautical knowledge areas set out in **5.0** of this AIC.

3.2 Pass or provide the Director with evidence of having passed an aeronautical knowledge test in the applicable knowledge areas referred to in **5.0** of this AIC with a minimum pass of 70% ;

3.3 The applicant must meet the aeronautical experience requirements of **BCAR-APL 3.36 Airline transport pilot aeronautical experience for aeroplane category rating** before applying for the skill test check;

3.4 The examiner will determine if the applicant is ready to take the skill test by verifying with the instruction records and the logbook.

3.5 Pass or provide the Director with evidence of having passed the skill test referred to in BCAR-APL 3.35 and in **6.0** of this AIC.

3.6 Present log book endorsement from an authorized flight instructor from he or she received and logged training.

3.7 Present logbook at the licensing unit demonstrating compliance with the minimum hours for the issue of ATP as required BCAR.

3.8 The applicant must then follow the procedure below to commence the process for the issuance of the license.

4.0 License issuance procedure:

4.1 The applicant must fill out the application form BDCA-FORM-APL-3000.

4.2 The form is to be submitted along with the required supporting documents.

4.2.1 If the application form is not completed appropriately and/or the supporting documents are not complete, then the application will not be accepted.

4.3 The documentation submitted will be reviewed.

4.4 For applicants with foreign license, a license verification request will be sent to the issuing civil aviation authority. The Licensing Unit will await a response before a license is issued to the applicant.

4.4.1 The applicant for an Air Transport License may at any time after having initially applied for mentioned license, apply to the Department to conduct the knowledge tests stipulated in the BCAR.

4.4.2 Personal information for foreign applicants will be sent to the Ministry of National Security for vetting. The applicants license will not be issued until a not objection is received from the Ministry of National Security. (Foreign Applicants only)

4.5 Prior to conducting the knowledge test, the corresponding fee must be paid in accordance with the scheme of charges. This payment is to be done at the BDCA Accounting unit, and a copy of the receipt is to be provided to the Licensing Unit.

4.6 Two copies of the knowledge test result will be printed and signed by the applicant and the licensing officer conducting the test. The test result will be imprinted with the BDCA stamp.

4.7 Having passed the knowledge test, the applicant will undergo a skill test with either a BDCA qualified inspector or Designated Examiners. The results shall be presented to the Licensing Unit.

4.8 The applicant shall pay the technical examination charges as prescribed in the scheme of charges prior to the processing of a license.

4.9 After all documents have been reviewed and approved by the licensing officer, the applicant’s photo and signature will be captured.

4.10 A control sheet is signed by the licensing officer and Director of Civil Aviation or his designated representative before issuing the license to the applicant. He or she will sign a logbook certifying the receipt of the document.

4.11 A copy of the Belize License issued is kept on the applicants file at the Licensing Unit.

Note 1: For applicants of foreign nationality opting for a License expecting to receive remuneration for their services, they must submit a copy of a valid temporary employment permit issued by the Ministry responsible for Immigration and Nationality before the BDCA can issue the license.

5.0 Aeronautical knowledge requirements

5.1 Air law

5.1.1 Rules and regulations relevant to the holder of an airline transport pilot license; rules of the air; appropriate air traffic services practices and procedures.

5.2 Aircraft general knowledge for airplanes, helicopters, and powered lifts.

5.2.1 General characteristics and limitations of electrical, hydraulic, pressurization and other aircraft systems, flight control systems, including autopilot and stability augmentation.

5.2.2 Principles of operation, handling procedures and operating limitations of aircraft engines; effects of atmospheric conditions on engine performance; relevant operational information from the flight manual or other appropriate document.

5.2.3 Operating procedures and limitations of the relevant category of aircraft; effects of atmospheric conditions on aircraft performance in accordance with the relevant operational information from the flight manual.

5.2.4 Use and serviceability checks of equipment and systems of appropriate aircraft.

5.2.5 Flight instruments; compasses, turning and acceleration errors; gyroscopic instruments, operational limits and precession effects; practices and procedures in the event of malfunctions of various flight instruments and electronic display units.

5.2.6 Maintenance procedures for airframes, systems, and engines of appropriate aircraft.

5.2.7 For helicopters and powered-lifts, transmission (power trains) where applicable.

5.3 Flight performance, planning and loading

5.3.1 Effects of loading and mass distribution on aircraft handling, flight characteristics and performance; mass and balance calculations.

5.3.2 Use and practical application of take-off, landing and other performance data, including procedures for cruise control.

5.3.3 Pre-flight and en-route operational flight planning; preparation and filing of air traffic services flight plans, appropriate air traffic services procedures; altimeter setting procedures.

5.3.4 In the case of helicopters and powered-lifts, effects of external loading on handling.

5.4 Human performance

5.4.1 Human performance including principles of TEM.

5.5 Meteorology

5.5.1 Interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations. use of, and procedures for obtaining, meteorological information, pre-flight and in-flight, altimetry.

5.5.2 Aeronautical meteorology; climatology of relevant areas in respect of the elements having an effect upon aviation; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect take-off, en-route, and landing conditions.

5.5.3 Causes, recognition and effects of icing; frontal zone penetration procedures; hazardous weather avoidance.

5.5.4 In the case of airplanes and powered-lifts, practical high-altitude meteorology, including interpretation and use of weather reports, charts, and forecasts; jet streams.

5.6 Navigation

5.6.1 Air navigation, including the use of aeronautical charts, radio navigation aids and area navigation systems; specific navigation requirements for long-range flights.

5.6.2 Use, limitation and serviceability of avionics and instruments necessary for the control and navigation of aircraft.

5.6.3 Use, accuracy and reliability of navigation systems used in departure, en-route, approach, and landing phases of flight. identification of radio navigation aids.

5.6.4 Principles and characteristics of self-contained and external-referenced navigation systems; operation of airborne equipment.

5.7 Operational procedures

5.7.1 Application of TEM to operational performance.

5.7.2 Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes and abbreviations.

5.7.3 Precautionary and emergency procedures; safety practices.

5.7.4 Operational procedures for carriage of freight and dangerous goods.

5.7.5 Requirements and practices for safety briefing to passengers, including precautions to be observed when embarking and disembarking from aircraft.

5.7.6 In the case of helicopters, and if applicable, powered lifts, settling with power; ground resonance; retreating blade stall; dynamic rollover and other operating hazards; safety procedures, associated with flight in VMC.

5.8 Principles of flight

5.8.1 Principles of flight.

5.9 Radiotelephony

5.9.1 Communication procedures and phraseology; action to be taken in case of communication failure.

6.0 Flight instruction and skill Test- aeroplane category

6.1 The applicant shall have received dual instruction in airplanes appropriate to the class and/or type rating, sought from an authorized flight instructor. The applicant shall have demonstrated the ability to perform, as pilot-in-command of an aircraft within the appropriate category required to be operated with a co-pilot, the following procedures and maneuvers:

6.1.1 Pre-flight procedures, including the preparation of the operational flight plan and filing of the air traffic services flight plan;

6.1.2 Normal flight procedures and maneuvers during all phases of flight.

6.1.3 Abnormal and emergency procedures and maneuvers related to failures and malfunctions of equipment, such as engine, systems and airframe.

6.1.4 Procedures for crew incapacitation and crew coordination, including allocation of pilot tasks, crew cooperation and use of checklists; and

6.1.5 In the case of airplanes and powered-lifts, procedures and maneuvers for instrument flight described in ATP flight instruction requirements including simulated engine failure.

6.2 The applicant shall have demonstrated the ability to perform the procedures and maneuvers described above with a degree of competency appropriate to the privileges granted to the holder of an airline transport pilot license, and to:

6.2.1 Recognize and manage threats and errors.

6.2.2 Smoothly and accurately, manually control the aircraft within its limitations at all times, such that the successful outcome of a procedure or maneuver is assured.

6.2.3 Operate the aircraft in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation.

6.2.4 Perform, in an accurate manner, normal, abnormal, and emergency procedures in all phases of flight.

6.2.5 Exercise good judgement and airmanship, to include structured decision making and the maintenance of situational awareness; and

6.2.6 Communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot tasks, crew cooperation, adherence to SOPs and use of checklists.

6.3 The flight instruction and skill test for the multi- engine Airline Transport pilot license aeroplane shall include at least the following areas of operation with CRM competencies applied and evident in all tasks:

Note 2: When it marks ATP: ATP Certificate only, AMEL: Airplane – Multiengine Land, AMES: Airplane – Multiengine Sea only. When nothing is indicated, the item or paragraph applies to all.

6.3.1 Preflight Preparation

(i) Operation of Systems

(ii) Performance and Limitations

(iii) Weather Information (ATP)

(iv) High Altitude Aerodynamics (ATP) (AMEL, AMES)

(v) Air Carrier Operations (ATP) (AMEL)

(vi) Human Factors (ATP)

(vii) Water and Seaplane Characteristics, Seaplane Bases, Maritime Rules, and Aids to Marine Navigation (AMES)

6.3.2 Preflight Procedures

(i) Preflight Assessment

(ii) Powerplant Start

(iii) Taxiing (AMEL)

(iv) Taxiing and Sailing (AMES)

(v) Before Takeoff Checks

6.3.3 Takeoffs and Landings

(i) Normal Takeoff and Climb

(ii) Normal Approach and Landing

(iii) Glassy Water Takeoff and Climb (AMES)

(iv) Glassy Water Approach and Landing (AMES)

(v) Rough Water Takeoff and Climb (AMES)

(vi) Rough Water Approach and Landing (AMES)

(vii) Confined-Area Takeoff and Maximum Performance Climb (AMES)

(viii) Confined-Area Approach and Landing (AMES)

(ix) Rejected Takeoff

(x) Go-Around/Rejected Landing

6.3.4 Inflight Maneuvers

(i) Steep Turns

(ii) Recovery from Unusual Flight Attitudes

(iii) Specific Flight Characteristics

6.3.5 Stall Prevention

(i) Partial Flap Configuration Stall Prevention

(ii) Clean Configuration Stall Prevention

(iii) Landing Configuration Stall Prevention

6.3.6 Instrument Procedures

(i) Instrument Takeoff

(ii) Departure Procedures Arrival Procedures

(iii) Non precision Approaches

(iv) Precision Approaches

(v) Landing from a Precision Approach

(vi) Circling Approach

(vii) Landing from a Circling Approach

(viii) Missed Approaches

(ix) Holding Procedures

6.3.7 Emergency Operations

(i) Emergency Procedures

(ii) Powerplant Failure during Takeoff

(iii) Powerplant Failure (Simulated) (ASEL, ASES)

(iv) Inflight Powerplant Failure and Restart (AMEL, AMES)

(v) Approach and Landing with a Powerplant Failure (Simulated) (AMEL, AMES)

(vi) Precision Approach (Manually Flown) with a Powerplant Failure (Simulated) (AMEL, AMES)

(vii) Landing from a No Flap or a Nonstandard Flap Approach

6.3.8 Postflight Procedures

(i) After Landing, Parking and Securing (AMEL)

(ii) Seaplane Post-Landing Procedures (AMES)

7.0 Conclusion

The elements introduced in this AIC must be passed satisfactorily to meet the requirements of BCAR APL 3.33.1 Airline Transport Pilot license general requirements.

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