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MULTI-CREW PILOT LICENCE (AEROPLANE)

INTRODUCTION

1. This AIC is issued in the exercise of the powers conferred under Section 24o of the Civil Aviation Act 1969.
2. The International Civil Aviation Organisation has established a new aeroplane pilot qualification, designated specifically for airline co-pilots, termed the Multi-crew Pilot Licence (MPL). The training for MPL involves the expanded use of Flight Simulation Training Devices (FSTD) and the determination of more relevant training standards and methodologies. It provides the opportunity to train pilots directly for co-pilot duties. The Malaysian Department of Civil Aviation supports this move and has decided to incorporate the MPL in addition to the existing licences.
3. Pursuant to regulation 41 of the Civil Aviation Regulations (CAR) 1996, the Director General may, subject to such conditions as he thinks fit, grant licences authorising the holder to act as a member of the flight crew of a Malaysian aircraft. This AIC sets forth the requirements for MPL in addition to regulation 41 of CAR 1996 and shall become applicable on 1 June 2011.
4. This AIC also sets forth the means that would be acceptable to the Department of Civil Aviation for the purpose of complying with the regulation 45 of CAR 1996, with regards to the provisions and certificate of approval for any instruction in flying.

MINIMUM AGE, MEDICAL REQUIREMENTS, PERIOD OF VALIDITY AND PRIVILEGES

5. The MPL shall not be granted to any person who is under the minimum age of eighteen (18) years.
6. The MPL shall not be renewed or granted to any person who has attained the age of sixty-five (65) years.
7. The applicant of MPL shall meet the medical requirements appropriate to that of a Commercial Pilot's Licence (aeroplane) or Airline Transport Pilot's Licence (aeroplane) set out in the Fourteenth Schedule of CAR 1996.
8. The applicant of MPL shall meet the medical examinations and standard of medical fitness required in section 7 (h) of 14th Schedule of CAR 1996.

9. The maximum period of validity of MPL;
 - a. Twelve (12) months, if the holder is less than forty (40) years of age on the date on which the licence is granted or renewed; or
 - b. Six (6) months, if the holder is forty (40) years of age or more on that date.
10. Subject to the conditions specified in respect of the licence, the privileges of the holder of a MPL are to:
 - a. act as a co-pilot of any aeroplane included in the licence which is required to be operated with a co-pilot on any flight;
 - b. exercise the privileges of the licence at night;
 - c. exercise the privileges of an instrument rating in an aeroplane required to be operated with a co-pilot;
 - d. that the holder shall not fly such aeroplane on any flight after attaining the age of sixty (60) years or the age of sixty-five (65) years in the case where the aeroplane is fitted with dual controls and carries a second pilot who has not attained the age of sixty (60) years and who holds an appropriate licence under CAR 1996 entitling him to act as pilot-in-command or co-pilot of that aeroplane.

CERTIFICATE OF TEST

11. A certificate of test required by regulation 41 of the CAR in respect of MPL shall not be valid in relation to a flight described as follows;
 - a. made more than thirteen (13) months after the date of test which it certifies for flights involving the carriage of passengers in respect of which the holder of the licence receives remuneration; and
 - b. made more than six (6) months after the date of test which it certifies for flights involving public transport.
12. In the case of Section 11 b of this AIC, the certificate of test shall not be valid in relation to a flight made more than thirteen months after the date of test provided that two (2) certificates of test shall together be deemed to constitute a valid certificate of test if the certifying flying tests conducted on two occasions within the period of thirteen (13) months preceding the flight on which the functions are to be performed, such occasions being separated by an interval of not less than four (4) months, and if both certificates are appropriate to those functions.

KNOWLEDGE REQUIREMENTS

13. The applicant for MPL shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of an Airline Transport Pilot's Licence appropriate to the aeroplane category in an approved training course.

SKILL REQUIREMENTS

14. The applicant for MPL shall have demonstrated the skills required for fulfilling all the competency units specified in Section 22 of this AIC as pilot flying and pilot not flying,

to the level required to perform as a co-pilot of turbine-powered aeroplanes certified for operation with a minimum crew of at least two (2) pilots under VFR and IFR, and to:

- a. recognise and manage threats and errors;
- b. smoothly and accurately, manually control the aeroplane within its limitations at all times, such that the successful outcome of a procedure or manoeuvre is assured;
- c. operate the aeroplane in the mode of automation appropriate to the phase of flight and to maintain awareness of the active mode of automation;
- d. perform, in an accurate manner, normal, abnormal and emergency procedures in all phases of flight; and
- e. communicate effectively with other flight crew members and demonstrate the ability to effectively perform procedures for crew incapacitation, crew coordination, including allocation of pilot task, crew cooperation, adherence to standard operating procedures and use of checklist

FLIGHT EXPERIENCE

15. The applicant for MPL shall have completed in an approved training course not less than two hundred forty (240) hours as pilot flying and pilot not flying of actual and simulated flight.
16. The applicant for MPL shall have a flight experience in aeroplanes of at least of thirty-five (35) hours that includes upset recovery training, night flying and flight by reference solely to instruments. This shall include not less than ten (10) hours of solo flight under the supervision of a flight instructor, including (five) 5 hours of solo cross-country flight time with at least one (1) cross-country flight totaling hundred fifty (150) nautical miles in the course of which full-stop landings at two (2) different aerodromes shall be made.
17. In addition to Section 16 of this AIC, the applicant for MPL shall have gained, in a turbine-powered aeroplane certified for operation with a minimum crew of at least two (2) pilots, or in a Flight Simulation Training Device (FSTD) approved for that purpose by the DCA in accordance with Section 24 of this AIC, the experience necessary to achieve the advanced level of competency defined in Attachment A hereof.

TRAINING

18. The applicant for MPL shall have completed a course of approved training covering the experience requirements specified in Section 15, 16 and 17 of this AIC. The training shall be competency-based and conducted in a multi-crew operational environment.
19. The applicant for MPL shall have received dual flight instruction in all the competency units specified in Section 22 of this AIC, to the level required for the issue of the MPL, to include the competency units required to pilot under instrument flight rules.
20. During the MPL training, the applicant shall have acquired the knowledge, skills and attitudes, required as the underpinning attributes for performing as co-pilot of a turbine-powered air transport aeroplane for operation with a minimum crew of at least

two (2) pilots.

21. The applicant for MPL shall have satisfactorily demonstrated performance in all the nine (9) competency units specified in Section 22 of this AIC, at the advanced level of competency as defined in Attachment A hereof.
22. The competency units that the applicant for MPL has to demonstrate in accordance to Section 14 of this AIC, are as follows:
 - a. apply threat and error management (TEM) principles;
 - b. perform aeroplane ground operations;
 - c. perform take-off;
 - d. perform climb;
 - e. perform cruise;
 - f. perform descend;
 - g. perform approach;
 - h. perform landing; and
 - i. perform after-landing and aeroplane post-flight operations.
23. Flying Training for MPL shall be conducted in four (4) phases as described in Attachment A.
24. FSTD used to gain the experience for a MPL specified in Section 17 of this AIC, shall be approved by DCA. FSTD shall be categorised as follows:
 - a. Phase 1. E-training and part tasking devices approved by DCA that have the following characteristics:
 - i. involves accessories beyond those normally associated with desktop computers, such as functional replicas of a throttle quadrant, sidestick controller, or a Flight Management System keypad; and
 - ii. involves psychomotor activity with appropriate application of force and timing responses.
 - b. Phase 2. A FSTD that represents a generic turbine-powered aeroplane. The minimum specifications of which can be met by a Flight and Navigation Procedures Trainer Multi-crew Co-operation (FNPT MCC) equipped with a daylight visual system.
 - c. Phase 3. A FSTD that represents a multi-engined turbine powered aeroplane certified for a crew of two (2) pilots with enhanced daylight visual system and equipped with an autopilot. The minimum specifications of which can be met by a Full Flight Simulator Level B.
 - d. Phase 4. Full Flight Simulator Level D or a Full Flight Simulator Level C with an enhanced daylight visual system.

GUIDANCE DOCUMENT

25. Guidance on MPL training can be in found in the Procedures for Air Navigation Service – Training (PANS-TRG, Doc 9868) covering the:
- a. training scheme, including the various levels of competency;
 - b. competency elements and performance criteria;
 - c. development of performance criteria; and
 - d. application of threat and error management.

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MULTI-CREW PILOT LICENCE LEVEL OF COMPETENCY

Multi-crew pilot training is conducted as one continuous course of study broken down into four distinct phase. Each phase is comprised of instructions in underpinning knowledge and practical training sessions designed to impart specific and measurable skill, knowledge and attitudinal competencies. The breakdown of the programmed phases are as below.

PHASE 1 CORE FLYING SKILLS

The level of competency at which the applicant shall have complied with the requirements for the private pilot licence, including night flying requirements, and, in addition, have completed, smoothly and with accuracy, all procedures and manoeuvres related to upset training and flight with reference solely to instruments. From the outset, all training is conducted in an integrated multi-crew, competency based and threat and error management (TEM) environment. Initial training and instructional input levels are high as core skills are being embedded in the ab initio application. Assessment at this level confirms that control of the aeroplane is maintained at all times in a manner such that the successful outcome of a procedure or a manoeuvre is assured.

PHASE 2 BASIC

The level of competency at which assessment confirms that control of the aeroplane or situation is maintained at all times and in such a manner that if the successful outcome of a procedure or manoeuvre is in doubt, corrective action is taken. Performance in the generic cockpit environment does not yet consistently meet the Standards of knowledge, operational skills and level of achievement required in the core competencies. Continual training input is required to meet an acceptable initial training standard. Specific performance improvement/personal development plans will be agreed and the details recorded. Applicants will be continuously assessed as to their suitability to progress to further training and assessment in successive phases.

PHASE 3 INTERMEDIATE

The level of competency at which assessment confirms that control of the aeroplane or situation is maintained and in such a manner that if the successful outcome of a procedure or manoeuvre is assured. The training level at Level 2 shall be conducted under instrument flight rules, but need not be specific to any type of aeroplane. On completion of Level 2, the applicant shall demonstrate levels of knowledge and operational skills that are adequate in the environment and achieves the basic standard in the core capability. Training support may be required with a specific development plan to maintain or improve aeroplane handling, behavioural performance in leadership or team management. Improvement and development to attain the Standard is the key performance objective. Any core competency assessed as less than satisfactory should include supporting evidence and a remedial plan.

PHASE 4 ADVANCED

The level of competency required to operate as a co-pilot in a turbine-powered aeroplane certified for operation with a minimum crew of at least two pilots, under visual and instrument conditions. Assessment confirms that control of the aeroplane or situation is maintained at all times in such a manner that a successful outcome of a procedure or manoeuvre is assured. The applicant shall consistently demonstrate the knowledge, skills and attitudes required for the safe operation of an applicable aeroplane type as specified in the performance criteria.