# REGULATION OF THE MINISTER OF TRANSPORTATION OF THE REPUBLIC OF INDONESIA NUMBER PM 59 OF 2017

ON

THE SECOND AMENDMENT TO REGULATION OF THE MINISTER OF
TRANSPORTATION KM NUMBER 16 OF 2010 ON CIVIL AVIATION SAFETY
REGULATIONS (CASR) PART 63 ON LICENSING FLIGHT CREW MEMBERS
OTHER THAN PILOT, FLIGHT OPERATION OFFICERS, AND CERTIFICATION
OF FLIGHT ATTENDANT

#### BY THE BLESSINGS OF THE ALMIGHTY GOD

#### MINISTER OF TRANSPORTATION OF THE REPUBLIC OF INDONESIA,

- Considering: a. that Regulation of the Minister of Transportation KM

  Number 16 of 2010 on Civil Aviation Safety Regulations
  (CASR) Part 63 on Licensing of Flight Crew Members Other

  Than Pilots, Flight Operation Officers, and Certification of
  Flight Attendant as amended last by Regulation of the

  Minister of Transportation Number PM 49 of 2016, has
  regulated provisions concerning Licensing Flight Crew

  Members Other Than Pilot, Flight Operation Officers, and
  Certification of Flight Attendant;
  - b. that to comply with the international standards as stated in the International Civil Aviation Organization Annex 1 Personnel Licensing Amendment 173, it needs refinements to Regulation of the Minister of Transportation KM Number 16 of 2010;

c. that based on considerations as referred to in point a and point b, it is necessary to issue the Regulation of the Minister of Transportation on the second amendment to Regulation of the Minister of Transportation KM Number 16 of 2010 on Civil Aviation Safety Regulations (CASR) Part 63 on Flight Crew Licensing Members Other Than Pilot, Flight Operation Officers, and Certification of Flight Attendant;

# Observing

- : 1. Law Number 1 of 2009 on Flight (State Gazette of the Republic of Indonesia of 2009 Number 1, Supplement to the State Gazette of the Republic of Indonesia Number 4956);
  - 2. Regulation of the President Number 7 of 2015 about the Organization of the State Ministries (State Gazette of the Republic of Indonesia of 2015 number 8);
  - 3. Regulation of the President Number 40 of the 2015 on the Ministry of Transportation (State Gazette of the Republic of Indonesia of 2015 Number 75);
  - 5. Regulation of the Minister of Transportation Number PM 59 of 2015 on Criteria, Duties And Authorities of the Aviation Inspector (State Bulettin of the Republic of Indonesia of 2015 Number 409) as amended by Regulation of the Minister of Transportation Number PM 142 of 2016 on Amendment to Regulation of the Minister of Transportation Number PM 59 of 2015 on Criteria, Duties and Authorities of the Aviation Inspector (State Bulletin of the Republic of Indonesia Number 2016 of 1684);
  - 6. Regulation of the Minister of Transportation Number PM 189 on 2015 on the Organization and Management of the Ministry of Transportation (State Gazette of the Republic of Indonesia Number 2015 of 1844) as amended last by Regulation of the Minister of Transportation Number PM 44 of 2017 on the Second Amendment to Regulation of the Minister of transportation Number PM 189 of 2015 on the Organization and Management of the Ministry of Transportation (State Bulletin of the Republic of Indonesia of 2017 Number 816);

#### HAS DECIDED:

To issue

: REGULATION OF THE MINISTER OF TRANSPORTATION ON THE SECOND AMENDMENT TO REGULATION OF THE MINISTER OF TRANSPORTATION NUMBER KM 16 OF 2010 ON CIVIL AVIATION SAFETY REGULATIONS (CASR) PART 63 ON LICENSING FLIGHT CREW MEMBERS OTHER THAN PILOT, FLIGHT OPERATION OFFICERS, AND CERTIFICATION OF FLIGHT ATTENDANT.

#### Article I

To amend the Annex to the Regulation of the Minister of Transportation Number KM 16 of 2010 on Civil Aviation Safety Regulations (CASR) Part 63 on Licensing Flight Crew Members Other Than Pilots, Flight Operation Officers, and Certification of Flight Attendant as amended by Regulation of the Minister of Transportation Number PM 49 of 2016 on Civil Aviation Safety Regulations (CASR) Part 63 on Flight Crew Licensing Members other than Pilots, Flight Operation Officers, and Certification of Flight Attendant (State Gazette of the Republic of Indonesia of 2016 Number 691) as follows:

- 1. To add the Annex to the point f of section 63.3 Sub Part A concerning Licenses and Ratings required, the section 63.3 so as to read as follows:
  - 63.3 Requirement for Licences and Ratings
    - (f) Privileges of the holder of the license and the conditions to be observed in exercising such privileges:
      - privileges of the holder of flight navigator licence shall be act as flight navigator of any aircraft;
      - (2) privileges of the holder of a flight engineer licence shall be to act as flight engineer of any type of aircraft on which the holder has demonstrated a level of knowledge and skill, as determined by the DGCA on the basis of those

- requirements specified in 63.35 and 63.39 which are applicable to the safe operation of that type of aircraft; and
- of the (3) privileges holder of flight operations officer license is shall be to serve responsibilities in accordance with and basic functions the duty regulated in the Civil Aviation Safety Regulations Part 121/135 where the license holder has demonstrated a level of knowledge and skills, as determined by the Director General of Civil Aviation based on the requirements that are set in the applicable provisions are put in place to ensure the safety of the airplane's flight operations.

privileges of the holder of a flight operations officer licence shall be to serve in that capacity with responsibility for each area for which the applicant meets the requirements specified in CASR 121/135 on which the holder has demonstrated a level of knowledge and skill, as determined by the DGCA on the basis of applicable requirements to the safe operation of that type of aircraft.

- 2. To amend the Annex of the point (a) of section 63.35 Sub Part B regarding the requirements of knowledge, the section of 63.35 point (a) so as to reads as follows:
  - 63.35 Knowledge Requirements
    - (a) The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight engineer licence, in at least the following subjects:

## (1) Air law

rules and regulations relevant to the holder of a flight engineer licence; rules and regulations governing the operation of civil aircraft pertinent to the duties of a flight engineer.

# (2) Aircraft general knowledge

- (i) basic principles of engines, gas turbines and/or piston engines, characteristics of fuels, fuel systems including fuel control, lubricants and lubrication systems; afterburners and injection systems, function and operation of engine ignition and starter systems;
- (ii) principles of operation, handling procedures and operating limitations of aircraft engines, effects of atmospheric conditions on engine performance;
- (iii) airframes, flight controls, wheel assemblies, structures, brakes and anti-skid units. corrosion and fatigue life; identification of structural damage and defects;
- (iv) ice and rain protection systems;
- (iv) pressurization and airconditioning systems, oxygen systems;
- (v) hydraulic and pneumatic systems;
- (vi) basic electrical theory, electric systems (AC and DC), aircraft wiring systems, bonding and screening;

- (vii) principles of operation of instruments, compasses, autopilots, radio communication equipment, radio radar and navigation aids, flight management systems, displays and avionics;
- (ix) limitations of appropriate aircraft;
- (x) fire protection, detection, suppression and extinguishing systems; and
- (xi) use and service ability checks of equipment and systems of appropriate aircraft.
- (3) Flight performance, planning and loading
  - (i) effects of loading and mass distribution on aircraft handling, flight characteristics and performance, mass and balance calculations; and
  - (ii) use and practical application of performance data including procedures for cruise control.
- (4) Human performance human performance relevant to the flight engineer including principles of threat and error management.
- (5) Operational procedures
  - (i) principles of maintenance, procedures for the maintenance of airworthiness, defect reporting, pre-flight inspections, precautionary procedures for fuelling and use of external power, installed equipment and cabin systems;

- (ii) normal, abnormal and emergency procedures; and
- (iii) operational procedures for carriage of freight and dangerous goods.
- (6) Principles of flightFundamentals of aerodynamics.
- (7) Radiotelephony
  Communication procedures and phraseology.
- (8) fundamentals of navigation, principles and operation of self-contained systems.
- (9) operational aspects of meteorology.
- 3. To amend the point (c) of section 63.37 Sub Part B regarding Aeronautical Experience Requirements, section 63.37 of point (c) to read as follows:
  - 63.37 Aeronautical Experience Requirements
    - (c) The applicant shall have operational experience in the performance of the duties of a flight engineer, under the supervision of a flight engineer accepted by the Director General for that purpose, in at least the following areas:
      - (1) Normal procedures
        - (i) Pre-flight inspections;
        - (ii) Fuelling procedures, fuel management;
        - (ii) Inspection of maintenance documents;
        - (iv) Normal flight deck procedures during all phases of flight;
        - (v) Crew coordination and procedures in case of crew incapacitation;
        - (vi) Defect reporting.

- (2) Abnormal and alternate (standby) procedures
  - (i) Recognition of abnormal functioning of aircraft systems;
  - (ii) Use of abnormal and alternate (standby) procedures.
- (3) Emergency procedures
  - (i) Recognition of emergency conditions;
  - (ii) Use of appropriate emergency procedures.
- 4. To amend section 63.53 Sub Part C regarding the requirement of knowledge, section 63.53 to read as follows:
  - 63.53 Knowledge Requirements
    - (a) The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight navigator licence, in at least the following subjects:
      - (1) Air law

        Rules and regulation relevant to the holder of a flight navigator licence, appropriate air traffic services practices and procedures.
      - (2 Flight performance, planning and loading
        - (i) Effects of loading and mass distribution on aircraft performance;
        - (ii) Use of take-off, landing and other performance data including procedures for cruise control;
        - (iii) 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.

(3) Human performance relevant to the flight navigator including principles of threat and error management.

# (4) Meteorology

- practical (i) Interpretation and application of aeronautical meteorological reports, charts and forecasts, codes and abbreviations; of. use and procedures for obtaining, meteorological information, pre-flight and in-flight, altimetry;
- Aeronautical meteorology, (ii) 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, and landing en-route conditions.

## (5) Navigation

- (i) Dead-reckoning, pressure-pattern and celestial navigation procedures, the use of aeronautical charts, radio navigation aids and area navigation systems, specific navigation requirements for long-range flights;
- (ii) Use, limitation and serviceability of avionics and instruments necessary for the navigation of the aircraft;
- (iii) Radio use, accuracy and reliability of navigation systems used in

- departure, en-route and approach phases of flight, identification of radio navigation aids;
- (iv) Principles, characteristics and use of self-contained and external-referenced navigation systems, operation of airborne equipment;
- (v) The celestial sphere including the movement of heavenly bodies and their selection and identification for the purpose of observation and reduction of sights; calibration of sextants; the completion of navigation documentation;
- (vi) Definitions, units and formulae used in air navigation.
- (6) Operational procedures

  Interpretation and use of aeronautical documentation such as AIP, NOTAM, aeronautical codes, abbreviations, and instrument procedure charts for departure, en-route, descent and approach.
- (7) Principle of Flight
- (8) RadiotelephonyCommunication procedures and phraseology.
- (b) A passing grade is evidence, for a period of 24 calendar months after the test, which the applicant has complied with this Part.
- 5. To amend the point (a) point (4) section 63.75 Sub Part D concerning Knowledge Requirements, so that the section of 63.75 point (a) point (4) to read as follows:
  - 63.75 Knowledge Requirements
    - (4) Human performance

human performance relevant to dispatch duties, including principles of threat and error management

- To add the point (d) of section 63.79 Sub Part D concerning Skill Requirements which reads as follows:
   63.79 Skill Requirements
  - d) recognize and manage threats and errors
- 7. To add point (e) on section 63.80 Sub Part D concerning Flight Operations Officer Licence Issued on Basis of a Foreign Flight Operations Officer Licence which reads as follows:
  - 63.80. Flight Operations Officer Licence Issued on Basis of a Foreign Flight Operations Officer License.
    - (e) Renewal of licence and ratings. The holder of a licence issued under this Part may have that licence and ratings placed thereon renewed if, at the time of application for renewal, the foreign flight operations officer licence on which that licence is based in effect. Application for the renewal of the licence and ratings thereon must be made before the expiration of the licence.

#### Article II

This Ministerial Regulation comes into force on the date of promulgation.

In order that every person may know hereof, it is ordered to promulgate this Ministerial Regulation by its placement in the State Bulletin of the Republic of Indonesia.

> Issued in Jakarta on 4 August 2017

MINISTER OF TRANSPORTATION OF THE REPUBLIC OF INDONESIA,

signed

BUDI KARYA SUMADI

Promulgated in Jakarta on 8 August 2017

DIRECTOR GENERAL
OF LEGISLATION MINISTRY OF LAW AND HUMAN RIGHTS OF
THE REPUBLIC OF INDONESIA,

signed

WIDODO EKATJAHJANA

STATE BULLETIN OF THE REPUBLIC OF INDONESIA OF 2017 NUMBER 1095

Jakarta, 16 August 2017

Has been translated as an Official Translation on behalf of Minister of Law and Human Rights of the Republic of Indonesia,

DIRECTOR GENERAL OF LEGISLATION,

WIDODO EKATJAHJANA