



**MENTERI PERHUBUNGAN
REPUBLIK INDONESIA**

PERATURAN MENTERI PERHUBUNGAN REPUBLIK INDONESIA

NOMOR : PM 107 TAHUN 2015

TENTANG

**PERUBAHAN KEDUA ATAS PERATURAN MENTERI PERHUBUNGAN NOMOR PM 28 TAHUN 2013 TENTANG PERATURAN KESELAMATAN PENERBANGAN SIPIL BAGIAN 121 (*CIVIL AVIATION SAFETY REGULATION PART 121*)-
TENTANG PERSYARATAN-PERSYARATAN SERTIFIKASI DAN OPERASI BAGI PERUSAHAAN ANGKUTAN UDARA YANG MELAKUKAN PENERBANGAN DALAM NEGERI, INTERNASIONAL DAN ANGKUTAN UDARA NIAGA TIDAK BERJADWAL (*CERTIFICATION AND OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS*)**

DENGAN RAHMAT TUHAN YANG MAHA ESA

MENTERI PERHUBUNGAN REPUBLIK INDONESIA,

- Menimbang : a. bahwa dalam Peraturan Menteri Perhubungan Nomor PM 28 Tahun 2013 Tentang Peraturan Keselamatan Penerbangan Sipil Bagian 121 (*Civil Aviation Safety Regulation Part 121*) Tentang Persyaratan-Persyaratan Sertifikasi Dan Operasi Bagi Perusahaan Angkutan Udara Yang Melakukan Penerbangan Dalam Negeri, Internasional Dan Angkutan Udara Niaga Tidak Berjadwal (*Certification And Operating Requirements: Domestic, Flag, And Supplemental Air Carriers*) telah diatur ketentuan mengenai informasi petugas operasi penerbangan pesawat kepada penerbang yang berwenang untuk angkutan udara domestik dan pesawat resmi negara, dan ketentuan mengenai fasilitas dan pelayanan untuk penyedia angkutan udara tambahan;
- b. bahwa guna meningkatkan keselamatan penerbangan pada pengoperasian pesawat udara bagi perusahaan angkutan udara yang melakukan penerbangan dalam negeri, internasional dan angkutan udara niaga tidak berjadwal, perlu dilakukan penyesuaian terhadap pengaturan mengenai kondisi medis penerbang, juru mesin pesawat udara dan personel kabin sebelum melakukan pengoperasian pesawat udara, dan pengenaan sanksi administratif;

- c. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a dan huruf b, perlu menetapkan Peraturan Menteri Perhubungan Tentang Perubahan Atas Peraturan Menteri Perhubungan Nomor PM 28 Tahun 2013 Tentang Peraturan Keselamatan Penerbangan Sipil Bagian 121 (*Civil Aviation Safety Regulation Part 121*) Tentang Persyaratan-Persyaratan Sertifikasi Dan Operasi Bagi Perusahaan Angkutan Udara Yang Melakukan Penerbangan Dalam Negeri, Internasional Dan Angkutan Udara Niaga Tidak Berjadwal (*Certification And Operating Requirements: Domestic, Flag, And Supplemental Air Carriers*);

- Mengingat :
1. Undang-Undang Republik Indonesia Nomor 1 Tahun 2009 tentang Penerbangan (Lembaran Negara Republik Indonesia Tahun 2009 Nomor 1, Tambahan Lembaran Negara Republik Indonesia Nomor 4956);
 2. Peraturan Presiden Republik Indonesia Nomor 7 Tahun 2015 tentang Organisasi Kementerian Negara ((Lembaran Negara Republik Indonesia Tahun 2015 Nomor 8);
 3. Peraturan Presiden Republik Indonesia Nomor 40 Tahun 2015 tentang Kementerian Perhubungan (Lembaran Negara Republik Indonesia Tahun 2015 Nomor 75);
 4. Peraturan Menteri Perhubungan Nomor KM 60 Tahun 2010 tentang Organisasi dan Tata Kerja Departemen Perhubungan sebagaimana telah diubah dengan Peraturan Menteri Perhubungan Nomor PM. 68 Tahun 2013;
 5. Peraturan Menteri Perhubungan Nomor PM 41 Tahun 2011 tentang Organisasi dan Tata Kerja Kantor Otoritas Bandar Udara;
 6. Peraturan Menteri Perhubungan Nomor PM 28 Tahun 2013 Tentang Peraturan Keselamatan Penerbangan Sipil Bagian 121 (*Civil Aviation Safety Regulation Part 121*) Tentang Persyaratan-Persyaratan Sertifikasi Dan Operasi Bagi Perusahaan Angkutan Udara Yang Melakukan Penerbangan Dalam Negeri, Internasional Dan Angkutan Udara Niaga Tidak Berjadwal (*Certification And Operating Requirements: Domestic, Flag, And Supplemental Air Carriers*) sebagaimana telah diubah terakhir dengan Peraturan Menteri Perhubungan Nomor PM 36 Tahun 2015;
 7. Peraturan Menteri Perhubungan Nomor PM 22 Tahun 2015 tentang Peningkatan Fungsi Pengendalian dan Pengawasan Oleh Kantor Otoritas Bandar Udara;
 8. Peraturan Menteri Perhubungan Nomor PM 59 Tahun 2015 tentang Kriteria, Tugas dan Wewenang Inspektur Penerbangan;

MEMUTUSKAN :

Menetapkan : PERATURAN MENTERI PERHUBUNGAN TENTANG PERUBAHAN KEDUA ATAS PERATURAN MENTERI PERHUBUNGAN NOMOR PM 28 TAHUN 2013 TENTANG PERATURAN KESELAMATAN PENERBANGAN SIPIL BAGIAN 121 (*CIVIL AVIATION SAFETY REGULATION PART 121*) TENTANG PERSYARATAN-PERSYARATAN SERTIFIKASI DAN OPERASI BAGI PERUSAHAAN ANGKUTAN UDARA YANG MELAKUKAN PENERBANGAN DALAM NEGERI, INTERNASIONAL DAN ANGKUTAN UDARA NIAGA TIDAK BERJADWAL (*CERTIFICATION AND OPERATING REQUIREMENTS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS*).

Pasal I

Beberapa ketentuan dalam Lampiran Peraturan Menteri Perhubungan Nomor PM 28 Tahun 2013 tentang Peraturan Keselamatan Penerbangan Sipil Bagian 121 (*Civil Aviation Safety Regulation Part 121*) Tentang Persyaratan-Persyaratan Sertifikasi Dan Operasi Bagi Perusahaan Angkutan Udara Yang Melakukan Penerbangan Dalam Negeri, Internasional Dan Angkutan Udara Niaga Tidak Berjadwal (*Certification And Operating Requirements: Domestic, Flag, And Supplemental Air Carriers*) sebagaimana telah diubah dengan Peraturan Menteri Perhubungan Nomor PM 36 Tahun 2015, diubah sebagai berikut:

1. Menambah definisi "*Extended over water*" pada butir 121.1 pada Sub Bagian A yang berbunyi sebagai berikut:

Extended over water. A flight operated over water at a distance of more than 93 km (50 NM), or 30 minutes at normal cruising speed, whichever is the lesser, away from land suitable for making an emergency landing.

2. Ketentuan Sub Bagian E butir 121.97 huruf (a) diubah sehingga berbunyi sebagai berikut:

121.97 Airports: Required Data

- (a) Each domestic and flag air carrier must show that each route it submits for approval has enough airports that are properly equipped and adequate for the proposed operation, considering such items as size, surface, obstructions, facilities, public protection, level of rescue and fire fighting service (RFFS), lighting, navigational and communications aids, and ATC.

3. Ketentuan Sub Bagian E butir 121.125 diubah sehingga berbunyi sebagai berikut:

121.125 Flight Following System: Flag, Domestic and Supplemental Air Carriers

- (a) Each certificate holder conducting supplemental operations must show that it has:
- (1) An approved flight following system established in accordance with Subpart U of this part and adequate for the proper monitoring of each flight, considering the operations to be conducted; and
 - (2) Flight following centers located at those points necessary:
 - (i) To ensure the proper monitoring of the progress of each flight with respect to its departure at the point of origin and arrival at its destination, including intermediate stops and diversions therefrom, and maintenance or mechanical delays encountered at those points or stops; and
 - (ii) To ensure that the pilot in command is provided with all information necessary for the safety of the flight.
- (b) The certificate holder conducting supplemental operations may arrange to have flight following facilities provided by persons other than its employees, but in such a case the air carrier or commercial operator continues to be primarily responsible for operational control of each flight.
- (c) A flight following system need not provide for in-flight monitoring by a flight following center.
- (d) A certificate holder's operations specifications must specify the flight following system it is authorized to use and the location of the centers.

4. Ketentuan Sub Bagian E butir 121.127 diubah sehingga berbunyi sebagai berikut:

121.127 Flight Following System Requirements: Flag, Domestic and Supplemental Air Carriers

- (a) Each certificate holder conducting supplemental operations using a flight following system must show that:

- (1) The system has adequate facilities and personnel to provide the information necessary for the initiation and safe conduct of each flight to:
 - (i) The flight crew of each aircraft; and
 - (ii) The persons designated by the air carrier to perform the function of operational control of the aircraft; and
- (2) The system has a means of communication by private or available public facilities (such as telephone, telegraph, or radio) to monitor the progress of each flight with respect to its departure at the point of origin and arrival at its destination, including intermediate stops and diversions there from, and maintenance or mechanical delays encountered at those points or stops.
- (b) The certificate holder conducting supplemental operations must show that the personnel specified in Paragraph (a) of this section, and those it designates to perform the function of operational control of the aircraft, are able to perform their required duties.

5. Ketentuan Sub Bagian E butir 121.135 diubah sehingga berbunyi sebagai berikut:

121.135 Contents

- (a) Each manual required by Section 121.133 must:
 - (1) include instructions and information necessary to allow the personnel concerned to perform their duties and responsibilities with a high degree of safety;
 - (2) be in a form that is easy to revise;
 - (3) have the date of last revision on each page concerned; and
 - (4) not be contrary to any applicable Civil Aviation Safety Regulation and, in the case of flag or supplemental operation, any applicable foreign regulation, or the certificate holder's operations specifications or air operator certificate.
- (b) The operation manual, which may be issued in separate parts corresponding to specific aspects of operations shall be organized with the following structure:
 - (1) General;
 - (2) Aircraft operating information;
 - (3) Areas, routes and aerodromes; and
 - (4) Training.

- (c) The general part or section of the operations manual shall contain at least the following:
- (1) Administration and control of the operations manual:
 - (i) introduction;
 - (ii) system of amendment and revision.
 - (2) Organization and responsibilities:
 - (i) organizational structure;
 - (ii) the name of responsible manager as prescribed in Section 121.59;
 - (iii) duties and responsibilities of operations management personnel, PIC, and crew member other than PIC.
 - (3) Operational control and supervision:
 - (i) supervision of the operation by the air operator;
 - (ii) system of promulgation of additional operational instructions and information;
 - (iii) operational control as prescribed in Subpart U of this part.
 - (4) Crew composition:
 - (i) crew composition. An explanation of the method for determining crew compositions;
 - (ii) designation of the PIC. The rules applicable to the designation of a PIC.
 - (5) Qualifications of flight crew, cabin crew, flight operations officer and other operations personnel.
 - (6) Flight and duty time limitation and rest requirement. The scheme developed by the operator in according with applicable requirement.
 - (7) Crew health precaution. The relevant regulations and guidance for crew members concerning health.
 - (8) Operating procedures:
 - (i) flight preparation instructions. As applicable to the operation:
 - (A) criteria for determining the usability of aerodromes;
 - (B) the method for determining minimum flight altitudes;
 - (C) the method for determining aerodrome operating minima;

- (D) en-route operating minima for visual flight rules (VFR) flights. Policy regarding VFR flights, including a description of en route operating minima for VFR flights or VFR portions of a flight, instructions for route selection with respect to the availability of surfaces which permit a safe forced landing;
 - (E) presentation and application of aerodrome and en-route operating minima;
 - (F) interpretation of meteorological information.;
 - (G) determination of the quantities of fuel and oil carried;
 - (H) maintaining weight and centre of gravity within approved limit.
- (9) Ground handling arrangements and procedures:
- (i) fuelling procedures. including refueling and defueling when passenger are embarking, on board or disembarking
 - (ii) aircraft, passengers and cargo handling procedures related to safety.
 - (iii) procedures for the refusal of embarkation.;
 - (iv) de-icing and anti-icing on the ground (as applicable).
- (10) Flight procedures, including:
- (i) standard operating procedures (SOP) for each phase of flight;
 - (ii) instructions on the use of normal checklists and the timing for their use;
 - (iii) departure contingency procedures;
 - (iv) instructions on the maintenance of altitude awareness and the use of automated or flight crew altitude call-outs;
 - (v) instructions on the use of autopilots and auto-throttles in instrument meteorological conditions (IMC), in RVSM airspace and when conducting performance-based navigation procedures, as applicable;
 - (vi) instructions on the clarification and acceptance of ATC clearances, particularly where terrain clearance is involved;
 - (vii) departure and approach briefings;
 - (viii) procedures for familiarization with areas, routes and aerodromes;
 - (ix) stabilized approach procedure;
 - (x) limitation on high rates of descent near the surface;
 - (xi) conditions required to commence or to continue an instrument approach;

- (xii) instructions for the conduct of precision and non-precision instrument approach procedures;
 - (xiii) allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach and landing operations; and
 - (xiv) the circumstances during which a radio listening watch is to be maintained.
- (11) Navigation equipment. A list of the navigational equipment to be carried including any requirements relating to operations where performance-based navigation is prescribed.
- (12) Navigation procedures. A description of all navigation procedures relevant to the type(s) and area(s) of operation. Consideration shall be given to:
- (i) standard navigational procedures including policy for carrying out independent cross-checks of keyboard entries where these affect the flight path to be followed by the aircraft;
 - (ii) in-flight re-planning;
 - (iii) procedures in the event of system degradation;
 - (iv) where relevant to the operations, the long range navigation procedures, engine failure procedure for extended operations (ETOPS) and the identification and utilization of diversion aerodromes;
 - (v) instructions and training requirements for the avoidance of controlled flight into terrain and policy for the use of Terrain Awareness and Warning System (TAWS);
 - (vi) policy, instructions, procedures and training requirements for the avoidance of collisions and the use of the airborne collision avoidance system (ACAS);
 - (vii) information and instructions relating to the interception of civil aircraft including:
 - (A) procedures for pilots-in-command of intercepted aircraft; and
 - (B) visual signals for use by intercepting and intercepted aircraft;
 - (viii) for aeroplanes intended to be operated above 49 000 ft (15 000 m), procedure for cosmic radiation.
- (13) Policy and procedures for in-flight fuel management.
- (14) Procedures for operating in, and/or avoiding, potentially hazardous atmospheric conditions and operating restrictions.

- (15) Incapacitation of crew members. Procedures to be followed in the event of incapacitation of crew members in flight. Examples of the types of incapacitation and the means for recognizing them shall be included.
- (16) Cabin safety requirements. Procedures covering cabin preparation for flight, in-flight requirements and preparation for landing.
- (17) Passenger briefing procedures. The contents, means and timing of passenger briefing.
- (18) All-weather operations;
- (19) Use of the minimum equipment list (MEL) and configuration deviation list (CDL);
- (20) Non-revenue flights. Procedures and limitations, including persons who may be carried on such flights.
- (21) Oxygen requirements. An explanation of the conditions under which oxygen shall be provided and used.
- (22) Dangerous goods and weapons:
 - (i) transport of dangerous goods. Information, instructions and general guidance on the transport of dangerous goods including:
 - (A) air operator's policy on the transport of dangerous goods;
 - (B) guidance on the requirements for acceptance, labelling, handling, stowage and segregation of dangerous goods;
 - (C) procedures and actions to be taken for responding to emergency situations involving dangerous goods;
 - (D) duties and training of all personnel involved; and
 - (E) instructions on the carriage of company material;
 - (ii) transport of weapons. The conditions under which weapons, munitions of war and sporting weapons may be carried.
- (23) Security;
 - (i) security policies and procedures;
 - (ii) security instructions and guidance;
 - (iii) preventative security measures and training;
 - (iv) aeroplane search procedures and guidance on least-risk bomb locations where practicable.

- (24) Handling of accidents and occurrences. Procedures for the handling, notifying and reporting of accidents and occurrences.
 - (25) Rules of the air. Rules of the air including:
 - (i) territorial application of the rules of the air;
 - (ii) interception procedures;
 - (iii) ATC clearances, adherence to flight plan and position reports;
 - (iv) the ground/air visual codes for use by survivors, description and use of signal aids; and
 - (v) distress and urgency signals;
 - (26) safety management system (SMS). Details of the safety management system.
- (d) Aircraft operating information. The part or section containing aircraft operating information shall contain at least the following:
- (1) general information and units of measurement. General Information (e.g., aircraft dimensions), including a description of the units of measurement used for the operation of the aircraft type concerned and conversion tables;
 - (2) certification and operational limitations. A description of the certified limitations and the applicable operational limitations;
 - (3) normal, abnormal, and emergency procedures:
 - (i) The normal procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists, *specific flight deck procedures*, and a statement covering the necessary coordination procedures between flight and cabin crew, as applicable;
 - (ii) abnormal and emergency procedures and duties. The manual shall contain a listing of abnormal and emergency procedures assigned to crew members with appropriate check-lists that include a system for use of the check-lists and a statement covering the necessary co-ordination procedures between flight and cabin crew.
 - (4) performance data. Performance data shall be provided in a form in which it can be used without difficulty. Performance material which provides the necessary data to allow the flight crew to comply with the approved aircraft flight manual performance requirements shall be included to allow the determination of take-off, climb, cruise, descent, approach, and landing.

- (5) supplementary and additional performance *data* which provide the necessary data to allow the flight crew to comply with the approved aircraft flight manual.
- (6) flight planning data:
 - (i) flight planning. Specific data and instructions necessary for pre-flight and in-flight planning including factors such as speed schedules and power settings. Where applicable, procedures for engine(s) out operations, ETOPS and flights to isolated aerodromes shall be included for the flight plan and the operational flight plan; and
 - (ii) fuel calculations. The method for calculating the fuel needed for the various stages of flight;
- (7) weight and balance calculations. Instructions and data for the calculation of weight and balance including:
 - (i) calculation system (e.g. index system);
 - (ii) information and instructions for completion of weight and balance documentation, including manual and computer generated types;
 - (iii) limiting weight and centre of gravity of the various versions; and
 - (iv) dry operating weight and corresponding centre of gravity or index;
- (8) loading:
 - (i) loading procedures. Instructions for loading and securing the load in the aircraft;
 - (ii) loading dangerous goods. The operations manual shall contain a method to notify the PIC when dangerous goods are loaded in the aircraft (if applicable);
- (9) survival and emergency equipment including oxygen:
 - (i) list of survival equipment to be carried;
 - (ii) *oxygen usage*. The procedure for determining the amount of oxygen required and the quantity that it available;
 - (iii) *emergency equipment usage*. A description of the proper use of emergency equipment.
- (10) emergency evacuation procedures;
- (11) aircraft systems. A description of the aircraft systems, related controls and indications and operating instructions.

- (e) Areas, routes and aerodromes. The route guide part or section of the operations manual shall contain at least the following:
 - (1) the route guide will ensure that the flight crew will have for each flight, information relating to communication facilities, navigation aids, aerodromes, instrument approaches, instrument arrivals and instrument departures as applicable for the operation, and such other information as the operator may deem necessary in the proper conduct of flight operations;
 - (2) each route guide shall contain at least the following information:
 - (i) the minimum flight altitudes for each aircraft to be flown;
 - (ii) aerodrome operating minima for each of the aerodromes that are likely to be used as aerodromes of intended landing or as alternate aerodromes;
 - (iii) the increase of aerodrome operating minima in case of degradation of approach or aerodrome facilities;
 - (3) Information related to the level of RFFS (rescue and fire fighting services) protection that is deemed acceptable by the operator.
- (f) Training. The training part or section of the operations manual shall contain at least the following:
 - (1) flight crew training programme;
 - (2) cabin crew duties training programme;
 - (3) flight operations officer / flight dispatcher training programme.

6. Menambah ketentuan Sub Bagian H butir 121.165 setelah butir 121.163 yang berbunyi sebagai berikut:

121.165 Empty weight and center of gravity: Currency requirement.

- (a) No person may operate an airplane unless the current empty weight and center of gravity are calculated from values established by actual weighing of the aircraft within the preceding 36 calendar months.
- (b) Paragraph (a) of this section does not apply to—
 - (1) Aircraft issued an original airworthiness certificate within the preceding 36 calendar months; and

- (2) Aircraft operated under a weight and balance system approved in the operations specifications of the certificate holder.

7. Ketentuan butir 121317 Sub Bagian K diubah sehingga berbunyi sebagai berikut:

121.317 Passenger Information Requirements and Smoking Prohibitions

- (a) No person may operate an airplane unless it is equipped with passenger information signs that meet the requirements of Section 25.791 of the CASRs.
- (b) The "Fasten Seat Belt" sign shall be turned on during any movement on the surface, for each takeoff, for each landing, and at any other time considered necessary by the pilot in command.
- (c) No person may operate an aircraft on a flight segment on which smoking is prohibited unless the "No Smoking" passenger information signs are lighted during the entire flight segment, or one or more "No Smoking" placards meeting the requirements of 25.1541 of the CASR are posted during the entire flight segment. If both the lighted signs and the placards are used, the signs must remain lighted during the entire flight segment.
- (d) No person may operate a passenger-carrying airplane under this part unless at least one legible sign or placard that reads "Fasten Seat Belt While Seated" is visible from each passenger seat. These signs or placards need not meet the requirements of Paragraph (a) of this section.
- (e) [Reserved]
- (f) Each passenger required by Section 121.311(b) to occupy a seat or berth shall fasten his or her safety belt about him or her and keep it fastened while the "Fasten Seat Belt" sign is lighted.
- (g) No person may smoke while a "No Smoking" sign is lighted or if "No Smoking" placards are posted.
- (h) No person may smoke in any airplane lavatory.
- (i) No person may tamper with, disable, or destroy any smoke detector installed in any airplane lavatory.

- (j) On flight segments other than those described in Paragraph (c) of this section, the "No Smoking" sign must be turned on during any movement on the surface, for each takeoff, for each landing, and at any other time considered necessary by the pilot in command.
 - (k) Each passenger shall comply with instructions given him or her by a crewmember regarding compliance with Paragraphs (f), (g), (h).
8. Ketentuan butir 121.323 huruf (g) Sub Bagian K diubah sehingga berbunyi sebagai berikut:
- (g) independent portable light for each crew member station.
9. Ketentuan butir 121.339 Sub Bagian K diubah sehingga berbunyi sebagai berikut:

121.339 Aircraft Overwater Operations

- (a) All seaplanes including amphibians operated as seaplanes for all flights shall be equipped with:
 - (1) one life jacket, or equivalent individual floatation device, for each person on board, stowed in a position readily accessible from the seat or berth;
 - (2) equipment for making the sound signals prescribed in the International Regulations for Preventing Collisions at Sea, where applicable;
 - (3) one sea anchor (drogue).
- (b) All landplanes, when conduct extended over water operation shall carry one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from the seat or berth.
- (c) all multi-engine airplanes when used over routes on which the airplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 740 km (400 NM), whichever is the lesser, shall be equipped with:
 - (1) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in emergency, provided with such life-saving equipment including means of sustaining life as is appropriate to the flight to be undertaken;

- (2) equipment for making the pyrotechnical distress; and
- (3) after January 1st, 2018, on all aeroplanes of a maximum certificated take-off mass of over 27 000 kg, a securely attached underwater locating device operating at a frequency of 8.8 kHz. This automatically activated underwater locating device shall operate for a minimum of 30 days and shall not be installed in wings or empennage.

10. Ketentuan butir 121.340 Sub Bagian K dihapus.

121.340 DELETED.

11. Ketentuan butir 121.343 Sub Bagian K diubah sehingga berbunyi sebagai berikut:

121.343 Flight Recorders

No certificate holder may operate a transport category airplane unless it is equipped with an approved flight recorder, as required by CASR 91.231.

12. Ketentuan butir 121.344 Sub Bagian K dihapus.

121.344 DELETED.

13. Ketentuan butir 121.344a Sub Bagian K dihapus.

121.344a DELETED.

14. Ketentuan butir 121.345 Sub Bagian K diubah sehingga berbunyi sebagai berikut:

121.345 Radio Equipment

- (a) No person may operate an airplane unless it is equipped with radio equipment required for the kind of operation being conducted and shall provide for communications on the aeronautical emergency frequency 121.5 MHz.
- (b) In addition to the requirements specified in (a) and (c), no person may operate airplane in define portions of airspace or on routes where an RCP type has been prescribed, unless it is provided with communication equipment which will enable it to operate in accordance with the prescribed RCP type(s).

- (c) Where two independent (separate and complete) radio systems are required by Sections 121.347, each system must have an independent antenna installation except that, where rigidly supported nonwire antennas or other antenna installations of equivalent reliability are used, only one antenna is required.
- (d) ATC transponder equipment installed within the time periods indicated below must meet the performance and environmental requirements of the following:
 - (1) Through January 1, 1992:
 - (i) Any class of FAA TSO-C74b or any class of FAA TSO-C74c or equivalent as appropriate, provided that the equipment was manufactured before January 1, 1990; or
 - (ii) The appropriate class of FAA TSO-C112 (Mode S) or equivalent.
 - (2) After January 1, 1992: The appropriate class of FAA TSO-C112 (Mode S) or equivalent. For purposes of paragraph (c) (2) of this section, "installation" does not include:
 - (i) Temporary installation of FAA TSO-C74b or FAA TSO-C74c or equivalent substitute equipment, as appropriate, during maintenance of the permanent equipment;
 - (ii) Reinstallation of equipment after temporary removal for maintenance; or
 - (iii) For fleet operations, installation of equipment in a fleet aircraft after removal of the equipment for maintenance from another aircraft in the same operator's fleet.

15. Ketentuan butir 121.347 Sub Bagian K diubah sehingga berbunyi sebagai berikut:

121.347 Communication Equipment

No person may operate an airplane, unless the airplane is equipped with—

- (a) At least two independent communication systems necessary under normal operating conditions to fulfill the following:
 - (1) Communicate with at least one appropriate ground station from any point on the route.
 - (2) Communicate with appropriate traffic control facilities.

- (3) Receive meteorological information from any point enroute by either of two independent systems. One of the means provided to comply with this section may be used to comply with Subparagraph (a)(1) and (a)(2) of this section.
 - (b) At least one of the communication systems required by paragraph (a) of this section must have two-way voice communication capability.
16. Ketentuan butir 121.349 Sub Bagian K diubah sehingga berbunyi sebagai berikut:

121.349 Navigation Equipment

- (a) No person may operate an airplane, unless—
 - (1) The en route navigation aids necessary for navigating the airplane along the route (e.g., ATS routes, arrival and departure routes, and instrument approach procedures, including missed approach procedures if a missed approach routing is specified in the procedure) are available and suitable for use by the aircraft navigation systems required by this section;
 - (2) The airplane used in those operations is equipped with at least—
 - (i) Except as provided in paragraph (b) of this section, two approved independent navigation systems suitable for navigating the airplane along the route to be flown within the degree of accuracy required for ATC;
 - (ii) One marker beacon receiver providing visual and aural signals; and
 - (iii) One ILS receiver; and
 - (3) For operations where a navigation specification for performance-based navigation has been prescribed, an aeroplane shall;
 - (i) be provided with navigation equipment which will enable it to operate in accordance with the prescribed navigation specification(s); and
 - (ii) be authorized in the certificate holder's operation specification and Authorizations, Conditions, and Limitations.
- (b) Use of a single independent navigation system for operations conducted under IFR. Notwithstanding the requirements of paragraph (a)(2)(i) of this section, the airplane may be equipped with a single independent navigation system suitable for navigating the airplane along the route to be flown within the degree of accuracy required for ATC if:

- (1) It can be shown that the airplane is equipped with at least one other independent navigation system suitable, in the event of loss of the navigation capability of the single independent navigation system permitted by this paragraph at any point along the route, for proceeding safely to a suitable airport and completing an instrument approach; and
 - (2) The airplane has sufficient fuel so that the flight may proceed safely to a suitable airport by use of the remaining navigation system, and complete an instrument approach and land.
- (c) Use of VOR navigation equipment . If VOR navigation equipment is used to comply with paragraph (a) or (b) of this section, no person may operate an airplane unless it is equipped with at least one approved DME or suitable RNAV system.

17. Ketentuan butir 121.354 Sub Bagian K diubah sehingga berbunyi sebagai berikut:

121.354 Terrain awareness and warning system

- (a) No person may operate a turbine-powered airplane, unless that airplane is equipped with an approved Terrain Awareness and Warning System (TAWS) that meets the requirements for Class A equipment in the FAA Technical Standard Order (TSO)-C151 or its equivalent. The airplane must also include an approved terrain situational awareness display.
- (b) Airplane Flight Manual.
The airplane Flight Manual shall contain appropriate procedures for—
 - (1) The use of the Terrain Awareness and Warning System (TAWS); and
 - (2) Proper flight crew reaction in response to the Terrain Awareness and Warning System (TAWS) audio and visual warnings.

18. Ketentuan butir 121.356 huruf (b) Sub Bagian K dihapus sehingga butir 121.356 berbunyi sebagai berikut:

121.356 Collision avoidance system

- (a) After November 30, 2009 any aeroplane operated under this Part must be equipped and operated according to the following table:

Collision Avoidance Systems

Aeroplane operated	The aeroplane must be equipped with—
(A) Turbine-powered aeroplane of more than 33,000 pounds (15,000 kgs) maximum certificated takeoff weight	(1) An appropriate class of Mode S transponder that meets FAA Technical Standard Order (TSO) C-112, or a later version, or its equivalent, and one of the following approved units: (i) TCAS II that meets FAA TSO C-119b (version 7.0), or a later version, or its equivalent. (ii) TCAS II that meets FAA TSO C-119a (version 6.04A Enhanced), or its equivalent, that was installed in that aeroplane before May 1, 2003. If that TCAS II version 6.04A Enhanced no longer can be repaired to FAA TSO C-119a standards, it must be replaced with a TCAS II that meets FAA TSO C-119b (version 7.0), or a later version, or its equivalent. (iii) A collision avoidance system equivalent to FAA TSO C-119b (version 7.0), or a later version, or its equivalent, capable of coordinating with units that meet TSO C-119a (version 6.04A Enhanced), or a later version, or its equivalent.
(B) Passenger or combination cargo/ passenger (combi) aeroplane that has a passenger seat configuration of 10-30 seats	(1) TCAS I that meets FAA TSO C-118, or a later version, or its equivalent, or

	<p>(2) A collision avoidance system equivalent to has an FAA TSO C-118, or a later version, or its equivalent or</p> <p>(3) A collision avoidance system and Mode S transponder that meet paragraph (a)(1) of this section.</p>
<p>(C) Piston-powered aeroplane of more than 33,000 pounds (15,000 kgs) maximum certificated takeoff weight</p>	<p>(1) TCAS I that meets FAA TSO C-118, or a later version, or its equivalent or</p> <p>(2) A collision avoidance system equivalent to maximum FAA TSO C-118, or a later version, or its equivalent or</p> <p>(3) A collision avoidance system and Mode S transponder that meet paragraph (a)(1) of this section.</p>

(b) DELETED

19. Ketentuan butir 121.363 Sub Bagian L diubah sehingga berbunyi sebagai berikut:

121.363 Responsibility for Airworthiness

- (a) Each certificate holder is primarily responsible for-
- (1) The airworthiness of its aircraft, including airframe, aircraft engines, propellers, appliances, and parts thereof;
 - (2) The performance of the maintenance, preventive maintenance, and alteration of its aircraft, including airframes, aircraft engines, propellers, appliances, emergency equipment, and parts thereof, in accordance with its manual and the related regulations; and
 - (3) Obtaining and assessing the continuing airworthiness informations and recommendations from the organizations responsible for the type design.
- (b) A certificate holder may make arrangements with another person for the performance of any maintenance, preventive maintenance, or alterations. However, this does not relieve the certificate holder of the responsibility specified in paragraph (a) of this section.

20. Ketentuan butir 121.365 Sub Bagian L diubah sehingga berbunyi sebagai berikut:

121.365 Maintenance, Preventive Maintenance, and Alteration Organization.

- (a) Each certificate holder that performs any of its maintenance (other than required inspections), preventive maintenance, or alterations, and each person with whom it arranges for the performance of that work must have an organization adequate to perform the work. Additionally, the housing, facilities, equipment, materials, and data shall comply with CASR 145 subpart C.
- (b) Each certificate holder that performs any inspection required by its manual in accordance with section 121.369(e)(18) (in this subpart referred to as "required inspections") and each person with whom it arranges for the performance of that work must have an organization adequate to perform that work.
- (c) Each person performing required inspections in addition to other maintenance, preventive maintenance, or alteration, shall organize the performance of those functions so as to separate the required inspection functions from the other maintenance, preventive maintenance, and alteration functions. The separation shall be below the level of administrative control at which overall responsibility for the required inspection functions and other maintenance, preventive maintenance, and alterations functions are exercised.

21. Ketentuan butir 121.367 Sub Bagian L diubah sehingga berbunyi sebagai berikut:

121.367 Maintenance Program.

- (a) Each certificate holder shall have an maintenance program for each of aircraft type, approved by the DGCA and containt the following informations:
 - (1) maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the aeroplane;
 - (2) when applicable, a continuing structural integrity programme;
 - (3) procedures for changing or deviating from (1) and (2) above; and
 - (4) when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components and engines;
 - (5) maintenance task as required inspection items.

- (b) Maintenance tasks and intervals, that have been specified as mandatory in approval of the type design shall be identified as such;
- (c) Maintenance program required by this section shall be developed by considering the human factor principles;
- (d) Copies of all amendments to the maintenance program shall be furnished promptly to all organizations or persons to whom the maintenance program has been issued.

22. Ketentuan butir 121.369 Sub Bagian L diubah sehingga berbunyi sebagai berikut:

121.369 Company Maintenance Manual Requirements

- (a) The certificate holder shall provide the Director with a Company Maintenance Manual accepted by DGCA.
- (b) The Company Maintenance Manual shall have a statement of compliance; signed declaration by the chief executive.
- (c) The design of the manual shall observe Human Factors principles.
- (d) The certificate holder shall ensure that the Company Maintenance Manual is amended as necessary to keep the information contained therein up to date.
- (e) The Company Maintenance Manual shall have a Procedures to control, amend and distribute the company maintenance manual and all amendments promptly to all organizations or persons to whom the manual has been issued, including each of its supervisory personnel and make it available to its other personnel in their work area. The certificate holder is responsible for seeing that all supervisory and inspection personnel thoroughly understand the company maintenance manual.
- (f) The certificate holder shall provide the DGCA with a copy of the Company Maintenance Manual, together with all amendments and/or revisions to it and shall incorporate in it such mandatory material as the DGCA may require.
- (g) The Company Maintenance Manual may be issued in separate parts, and shall contain the following information:
 - (1) Procedure for the administrative arrangements between the certificate holder and the approved maintenance organization if applicable;

- (2) Maintenance procedures and the procedures for completing and signing a maintenance release as required by CASR 121.709;
- (3) A chart or description of the certificate holder's organization required by CASR 121.365;
- (4) The names, duties and responsibilities of the person or persons specified in point (3) including matters for which they have responsibility to deal directly with the Director on behalf of the certificate holder;
- (5) The procedures and programs required by CASR 121.367 that must be followed in performing maintenance, preventive maintenance, and alterations of that certificate holder's airplanes, including airframes, aircraft engines, propellers, appliances, emergency equipment, and parts thereof;
- (6) Procedure for recording of maintenance carried out and retention of maintenance record;
- (7) Procedures for reporting the occurrence or detection of each failure, malfunction, or defect required by CASR 121.703 and 121.705;
- (8) Procedures for obtaining and assessing continuing airworthiness informations and implementing any resulting actions, as required by CASR 121.363 (a) (3);
- (9) Procedure for implementing action resulting from airworthiness directive as required by CASR 39;
- (10) Procedures for establishing and maintaining a system of analysis and continued monitoring of the performance and effectiveness of the maintenance programme, as required by CASR 121.373;
- (11) a description of aircraft types and models to which the manual applies;
- (12) procedures for ensuring that unserviceable systems and components affecting airworthiness are recorded and rectified, as required by CASR 121.628;
- (13) Detailed description of the scope of work undertaken by the certificate holder.
- (14) A description of the organization's procedures and quality system as required by CASR 145.211(c);
- (15) A description of the housing, facilities, equipment, and materials as required by CASR 121.365(a);
- (16) Procedure for training program for the maintenance personnel employed by the certificate holder applicable to their assigned duties and responsibilities as required by CASR 121.375.
- (17) The list of personnel authorized to sign the maintenance release and the scope of their authorization;

(18) Procedure for required inspection items as required by CASR 121.367(a)(5) and 121.371, and must include method of performing, designations authorized personnel, buy back, and acceptance or rejections.

23. Ketentuan butir 121.373 Sub Bagian L diubah sehingga berbunyi sebagai berikut:

121.373 Continuing Analysis and Surveillance

- (a) Each certificate holder shall establish and maintain a system for the continuing analysis and surveillance of the performance and effectiveness of its maintenance program and for the correction of any deficiency in those programs, regardless of whether those programs are carried out by the certificate holder or another person.
- (b) The continuing analysis and surveillance system shall include—
 - (1) a function to monitor maintenance program performance to ensure that everyone, including all of operators maintenance providers comply with the company maintenance manual and with all applicable regulations, through a system of audits and investigations of operational events;
 - (2) a function to monitor maintenance program effectiveness to ensure that the maintenance programs is producing the desired result, through a system of data collection and analysis of operational data that results from operations of aircraft.

24. Ketentuan butir 121.379 Sub Bagian L diubah sehingga berbunyi sebagai berikut:

121.379 Authority to Perform and Approve Maintenance, Preventive Maintenance, and Alterations

- (a) A certificate holder may perform, or it may make arrangements with other persons to perform, maintenance, preventive maintenance, and alterations as provided in its continuous airworthiness maintenance program and its maintenance manual.
- (b) A certificate holder may approve any aircraft, airframe, airframe engine, propeller, or appliance for return to service after maintenance, preventive maintenance, or alterations that are performed under paragraph (a) of this section. However, in the case of a major repair or major alteration, the work must have been done in accordance with technical data approved by the Director.

25. Ketentuan butir 121.383 huruf (a) Sub Bagian M diubah sehingga berbunyi sebagai berikut:

121.383 Airman: Limitations on Use of Services

- (a) No certificate holder may use any person as an airman nor may any person serve as an airman unless that person:
- (1) Holds an appropriate current airman certificate issued by the DGCA;
 - (2) Has any required appropriate current airman and medical certificates in his possession while engaged in operations under this part; and
 - (3) Is otherwise qualified for the operation for which he is to be used.
 - (4) Has at least a current level 4 language proficiency (english), for international operations.

26. Ketentuan butir 121.385 Sub Bagian M diubah sehingga berbunyi sebagai berikut:

121.385 Composition of Flight Crew

- (a) No certificate holder may operate an airplane with less than the minimum flight crew in the airworthiness certificate or the airplane Flight Manual approved for that type airplane and required by this part for the kind of operation being conducted.
- (b) In any case in which this part requires the performance of two or more functions for which an airman certificate is necessary, that requirement is not satisfied by the performance of multiple functions at the same time by one airman.
- (c) A certificate holder minimum pilot crew is two pilots and the certificate holder shall designate one pilot as pilot in command and the other second in command.
- (d) On each flight requiring a flight engineer at least one flight crewmember, other than the flight engineer, must be qualified to provide emergency performance of the flight engineer's functions for the safe completion of the flight if the flight engineer becomes ill or is otherwise incapacitated. A pilot need not hold a flight engineer's certificate to perform the flight engineer's functions in such a situation.
- (e) The flight crew shall include at least one member who holds a valid radiotelephone operator licence, issued or validated by the DGCA, authorizing operation of the type of radio transmitting equipment to be used.

27. Ketentuan butir 121.463 Sub Bagian M diubah sehingga berbunyi sebagai berikut:

121.463 Flight Operations Officer Qualifications

- (a) No certificate holder conducting domestic or flag operations; may use any person, nor may any person serve, as an aircraft dispatcher for a particular airplane group unless that person has, with respect to an airplane of that group, satisfactorily completed the following:
 - (1) Initial flight operations officer training, except that a person who has satisfactorily completed such training for another type airplane of the same group need only complete the appropriate transition training.
 - (2) Operating familiarization consisting of a number of observing operations under this part from the flight deck or, for airplanes without an observer seat on the flight deck, from a forward passenger seat with headset or speaker.
- (b) No certificate holder conducting domestic or flag operations may use any person, nor may any person serve, as a flight operations officer unless within the preceding 12 calendar months he has satisfactorily completed operating familiarization consisting of observing operations from the flight deck operations under this part in one of the types of airplanes in each group he is to dispatch.
- (c) No certificate holder conducting domestic or flag operations may use any person, nor may any person serve as a flight operations officer to dispatch airplanes in operations under this part unless the certificate holder has determined that he is familiar with all essential operating procedures for that segment of the operation over which he exercises dispatch jurisdiction. However, a flight operations officer who is qualified to dispatch airplanes through one segment of an operation may dispatch airplanes through other segments of the operation after coordinating with flight operations officers who are qualified to dispatch airplanes through those other segments.
- (d) For the purposes of this section, the airplane groups, terms, and definitions in Section 121.400 apply.

28. Ketentuan butir 121.538 Sub Bagian T diubah sehingga berbunyi sebagai berikut:

121.538 Airplane Security

- (a) Each certificate holder shall establish a security program which shall:
- (1) Provide for the safety of persons and property traveling with the air carrier against acts of unlawful interference;
 - (2) Prohibit unauthorized access to the aircraft;
 - (3) Ensure that baggage carried in the aeroplane is checked by a responsible agent and that identification is obtained from persons, other than Regulated Agent, shipping goods or cargo aboard the aeroplane;
 - (4) Ensure that cargo and checked baggage carried aboard the aircraft is handled in a manner that prohibits unauthorized access;
 - (5) Require a security inspection of the aeroplane before placing it in service and after it has been left unattended;
 - (6) Ensure that there is on board a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting aeroplanes for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the aeroplane may be the object of an act of unlawful interference. The checklist shall be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aeroplane.
 - (7) Be in writing signed by the air carrier or any person delegated authority in this matter;
 - (8) Be approved by the DGCA.
- (b) For the purposes of this section:
- (1) Security Program means measures adopted to safeguard international civil aviation against acts of unlawful interference.
 - (2) Regulated Agent means an agent, freight forwarder or any other entity who conducts business with an operator and provides security controls that are accepted or required by the appropriate authority in respect of cargo, courier and express parcels or mail.
- (c) A certificate holder shall establish and maintain an approved security training programme which ensures crew members act in the most appropriate manner to minimize the consequences of acts of unlawful interference. As a minimum, the programme shall include the following elements:
- (1) determination of the seriousness of any occurrence;

- (2) crew communication and coordination;
- (3) appropriate self-defense responses;
- (4) use of non-lethal protective devices assigned to crew members whose use is authorized by the State of the Operator;
- (5) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;
- (6) live situational training exercises regarding various threat conditions;
- (7) flight deck procedures to protect the aeroplane; and
- (8) aeroplane search procedures and guidance on least-risk bomb locations where practicable.

- (d) A certificate holder shall also establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aeroplane so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

29. Menambah ketentuan butir 121.559 pada Sub Bagian T yang berbunyi sebagai berikut:

121.559 In-flight Fuel Management

- (a) The pilot-in-command shall continually ensure that the amount of usable fuel remaining on board is not less than the fuel required to proceed to an aerodrome where a safe landing can be made with the planned final reserve fuel remaining upon landing.
- (b) The pilot-in-command shall request delay information from ATC when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus any fuel required to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.
- (c) The pilot-in-command shall advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome may result in landing with less than the planned final reserve fuel.

- (d) The pilot-in-command shall advise ATC of a minimum fuel state by declaring MINIMUM FUEL when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome may result in landing with less than the planned final reserve fuel.

- 30. Menambah ketentuan butir 121.593 pada Sub Bagian T yang berbunyi sebagai berikut:

121.593 Dispatching Authority: Domestic operations.

Except when an airplane lands at an intermediate airport specified in the original dispatch release and remains there for not more than one hour, no person may start a flight unless an aircraft dispatcher specifically authorizes that flight.

- 31. Ketentuan butir 121.595 pada Sub Bagian U diubah sehingga berbunyi sebagai berikut:

121.595 Dispatching Authority: Flag operations.

- (a) No person may start a flight unless a flight operations officer specifically authorizes that flight.
- (b) No person may continue a flight from an intermediate airport without re-dispatch if the airplane has been on the ground more than six hours.

- 32. Ketentuan butir 121.619 huruf a pada Sub Bagian U diubah sehingga berbunyi sebagai berikut:

121.619 Alternate Airport for Destination: IFR: Domestic Air Carriers

- (a) No person may dispatch an airplane under IFR unless he lists at least one alternate airport for each destination airport in the dispatch release. When the weather conditions forecast for the destination and first alternate airport are marginal at least one additional alternate must be designated. However, no alternate airport is required if for at least 1 hour before and 1 hour after the estimated time of arrival at the destination airport the appropriate weather reports or forecasts, or any combination of them, indicate:
 - (1) The ceiling will be at least 2,000 feet above the airport elevation;
 - (2) Visibility will be at least 5 Kilometers; and
 - (3) separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure.

33. Ketentuan butir 121.639, 121.641, 121.643, dan 121.645 diubah dan digabungkan menjadi butir 121.639, sehingga butir 121.639 berbunyi sebagai berikut:

121.639 Fuel Supply

- (a) No person may release/dispatch or takeoff an airplane for operations within Indonesia, unless there is enough fuel supply, considering airplane mass, notice to airman, meteorological conditions, MEL/CDL, and any delays that are expected in flight, to include the following:
- (1) Taxi fuel – which shall be the amount of fuel expected to be consumed before take-off taking into account local conditions at the departure aerodrome and auxiliary power unit (APU) fuel consumption;
 - (2) Trip fuel – which shall be the amount of fuel required to enable the airplane to fly from take-off, or the point of in-flight re-planning, until landing at the destination aerodrome taking into account the operating conditions in the data provided by the manufacturer;
 - (3) Contingency fuel – which shall be the amount of fuel required to compensate for unforeseen factors. It shall be five percent of the planned trip fuel or of the fuel required from the point of in-flight re-planning based on the consumption rate used to plan the trip fuel, but in any case, shall not be lower than the amount required to fly for five minutes at holding speed at 450 m (1500 ft) above the destination aerodrome in standard conditions;
 - (4) Destination alternate fuel – which shall be
 - (i) Where a destination alternate aerodrome is required, the amount of fuel required to enable the airplane to:
 - a) Perform a missed approach at the destination aerodrome;
 - b) Climb to the expected cruising altitude;
 - c) Fly the expecting routing;
 - d) Descend to the point where the expected approach is initiated; and
 - e) Conduct the approach and landing at the destination alternate aerodrome; or

- (ii) Where two destination alternate aerodromes are required, the amount of fuel, as calculated in (4)(i) above, required to enable the airplane to proceed to the destination alternate aerodrome which requires the greater amount of alternate fuel; or
 - (iii) Where a flight is operated without a destination alternate aerodrome, the amount of fuel required to enable the airplane to fly for 15 minutes at holding speed at 450 m (1500 ft) above destination aerodrome elevation in standard conditions; or
 - (iv) Where the aerodrome of intended landing is an isolated aerodrome:
 - a) For a reciprocating engine airplane, the amount of fuel required to fly for 45 minutes plus 15 percent of the flight time planned to be spend at cruising level, including final reserve fuel, or two hours, whichever is less; or
 - b) For a turbine-engined airplane, the amount of fuel required to fly for 2 hours at normal cruise consumption above the destination aerodrome, including final reserve fuel;
- (5) Final reserve fuel – which shall be the amount of fuel calculated using the estimated mass on arrival at the destination alternate aerodrome, or the destination aerodrome when no destination alternate aerodrome is required, or a pre-calculated value for each airplane type and variant in the fleet rounded up to an easily recalled figure:
- (i) For a reciprocating engine airplane, the amount of fuel required to fly for 45 minutes, under speed and altitude conditions specified by the Authority; or
 - (ii) For a turbine-engined airplane, the amount of fuel required to fly for 30 minutes at holding speed at 450 m (1500 ft) above aerodrome elevation in standard conditions;
- (6) Additional fuel – which shall be the supplementary amount of fuel required if the minimum fuel calculated in accordance with trip fuel, contingency fuel, destination alternate fuel and final reserve fuel above is not sufficient to:

- (i) Allow the airplane to descend as necessary and proceed to an alternate aerodrome in the event of engine failure or loss of pressurization, whichever requires the greater amount of fuel based on the assumption that such a failure occurs at the most critical point along the route;
 - a) To fly for 15 minutes at holding speed at 450 m (1500 ft) above the aerodrome elevation in standard conditions; and
 - b) Make an approach and landing;
 - c) Allow an airplane engaged in ETOPS to comply with the ETOPS critical fuel scenario as established by the Authority;
 - d) Meet additional requirements not covered above.

(7) Discretionary fuel – shall be the extra amount of fuel to be carried at the discretion of the PIC.

(b) The DGCA may approve a variation to these requirements provided the operator can demonstrate an equivalent level of safety will be maintained through a safety risk assessment that includes at least the following:

- (i) Flight fuel calculations;
- (ii) Capabilities of the operator to include:
 - a) A data-driven method that includes a fuel consumption monitoring programme; and/or
 - b) The advanced use of alternate aerodromes; and
- (iii) Specific mitigation measures.

(c) The certificate holder shall re-analyse the use of fuel after flight commencement for purposes other than originally intended during pre-flight planning for adjustment of the planned operation.

34. Ketentuan butir 121.683 huruf a pada Sub Bagian V diubah sehingga berbunyi sebagai berikut:

121.683 Crewmember and Flight Operations Officer Record

- (a) Each certificate holder shall:
 - (1) Maintain current records of each crewmember and each flight operations officer (domestic and flag air carriers only) that show whether the crewmember or flight

operations officer complies with the applicable sections of the CASRs, including, but not limited to, proficiency and route checks, airplane and route qualifications, training, any required physical examinations, flight, duty, and rest time records;

- (2) For each flight of an airplane above 15 000 m (49 000 ft), maintain records so that the total cosmic radiation dose received by each crew member over a period of 12 consecutive months can be determined; and
- (3) Record each action taken concerning the release from employment or physical or professional disqualification of any flight crewmember or flight operations officer (domestic and flag air carriers only) and keep the record for at least six months thereafter.

35. Ketentuan butir 121.709 pada Sub Bagian V diubah sehingga berbunyi sebagai berikut:

121.709 Maintenance Release or Aircraft Log Entry

- (a) No certificate holder may operate an aircraft after maintenance, preventive maintenance or alterations are performed on the aircraft unless the certificate holder, or the person with whom the certificate holder arranges for the performance of the maintenance, preventive maintenance, or alterations, prepares or causes to be prepared:
 - (1) A maintenance release; or
 - (2) An appropriate entry in the aircraft log.
- (b) The maintenance release or log entry required by paragraph (a) of this section must:
 - (1) Be prepared in accordance with the procedures set forth in the certificate holder's manual.
 - (2) Include a certification that:
 - (i) The maintenance work performed was completed satisfactorily in accordance with approved data and the requirements of the certificate holder's manual. The entry shall include basic details of the maintenance carried out, the date such maintenance was completed, and reference the approved data used;
 - (ii) All items required to be inspected were inspected by an authorized person who determined that the work was satisfactorily completed;
 - (iii) No known condition exists that would make the airplane unairworthy; and

- (iv) So far as the work performed is concerned, the aircraft is in condition for safe operation; and
 - (3) Be signed by an authorized licensed aircraft maintenance engineer under Part 65.
 - (4) The entries cannot be erased.
- (c) Notwithstanding paragraph (b)(3) of this section, after maintenance, preventive maintenance, or alterations performed by a Approved Maintenance Organization that is located outside Republic of Indonesia, the maintenance release or log entry required by paragraph (a) of this section may be signed by a person authorized by that Approved Maintenance Organization.
- (d) When a maintenance release form is prepared the certificate holder must give a copy to the pilot in command and must keep a record thereof for at least two months.
- (e) Instead of restating each of the conditions of the certification required by paragraph (b) of this section, the certificate holder may state in its manual that the signature of an authorized licensed aircraft maintenance engineer constitutes that certification.
36. Ketentuan Appendix C angka 2 huruf l diubah sehingga berbunyi sebagai berikut:
- l. Aircraft Flight Training
- (1) No air carrier shall assign a person to act as a flight crewmember unless that person has successfully completed the aircraft type flight training prescribed by this Section. Where approved by the Director, such training may be provided in:
 - (a) an aircraft type flight simulator;
 - (b) an aircraft;
 - (c) and in part, a synthetic training device (STD); or
 - (d) a combination of an aircraft type flight simulator, STD and an aircraft.
 - (2) The Director may give certain flight training/checking credits to synthetic training devices where he is of the opinion that such device is:
 - (a) a true mock-up of the actual aircraft and is accurate in layout, equipment and design;
 - (b) sufficiently functional to physically position switches and controls to their appropriate position; and

- (c) is used only to prepare a trainee flight crewmember:
 - i. for the first motion session of the aircraft or aircraft type flight simulator; or
 - ii. the aural portion of a proficiency or competency check.

- (3) Initial and recurrent flight training for pilots must include the standard operating procedures for normal, abnormal, and emergency operation of the aircraft systems and components as appropriate to crew position and duties. In providing practice in the manoeuvres and procedures as specified herein, the flight training program must include any additional manoeuvres required to satisfy the carrier's programs for:
 - (a) low level windshear;
 - (b) ETOPS
 - (c) CAT II/III; or
 - (d) other special operations, for which the authority requires additional training.

Recurrent flight training shall be conducted every 12 months and be in sufficient depth to provide an adequate review of all the subjects contained in this section.

- (4) Where the manoeuvres and procedures required by paragraph (3) above, are to be accomplished in an aircraft, they shall include as appropriate to the aircraft type and trainee pilot and, consistent with safety;
 - (a) all pre-flight activity as laid down in the COM and appropriate to flight training;
 - (b) use of aircraft checklist system, including interior and exterior checks;
 - (c) taxiing;
 - (d) aspects of flight and cabin crew co-operation, including briefing, and coordination of duties;
 - (e) take-off, approach and landings including:
 - i. normal, full stop and touch and go;
 - ii. rejected from not more than 60 knots on take-off, or less than 100 feet on approach to land;
 - iii. simulated abnormal flap and flight control conditions;
 - iv. landing with the critical engine in a simulated failed condition; and
 - v. in the case of a single engine aircraft, no power forced landing.

- (f) normal manoeuvres during climb, descent and level flight at low and high altitudes;
 - (g) approaches to a stall and recovery procedures, simulating ground contact imminent and ground contact not a factor, in the clean, take-off and landing configuration;
 - (h) steep turns, onset of mach buffet, or other flight characteristic as applicable to the aircraft type;
 - (i) simulated malfunction of aircraft systems sufficient to ensure practice in all abnormal and emergency conditions for which the aircraft manufacture has published a checklist or procedure, including:
 - i. engine failure and fire while airborne and on the ground; and
 - ii. emergency passenger evacuation; and
 - (j) other specialized aircraft equipment where applicable; and
 - (k) where the aircraft is operated IFR, the training shall include:
 - i. take-off, departure, enroute, holding and arrival manoeuvres; and
 - ii. all types of instrument approaches and missed approaches in simulated conditions of low ceiling and visibility, including circling approaches (where applicable) using all levels of automation within the aircraft's capability; and
 - (l) upset recovery training.
- (5) Where the manoeuvres and procedures required by paragraph (3) above, are to be accomplished in an aircraft type simulator, they shall include as appropriate to the aircraft type and trainee pilot and consistent with simulator capabilities:
- (a) All the maneuvers and procedures prescribed by paragraph (4) above, except they shall be presented:
 - i. in a manner that maximizes the training value gained by use of that simulator including Line Orientated Flight Training (LOFT) exercises where applicable; and
 - ii. in accordance with the detailed lesson plans prescribed in paragraph (6) below.
- (6) Where an air carrier is approved to conduct flight training, in an aircraft type simulator, the air carrier shall publish a simulator training program:

- (a) in a series of lesson plans that cover the entire simulator phase of training, including a sample pre-flight test, in sufficient detail to:
 - i. indicate the expected weather for the most part of the session;
 - ii. indicates relevant aircraft data, dispatch deviations etc.;
 - iii. lists specific pre-flight briefing points related to that lesson;
 - iv. indicates any periods of time during the lesson, where unrealistic exercises or departures from real time profiles may be experienced; and
 - v. gives details as to the airports, routes, terminal and approach procedures to be used during the session.
 - (b) that prescribes the specific manoeuvres and procedures to be presented during each session;
 - (c) that shows a logical progression in the complexity of the exercises;
 - (d) that ensures, more demanding exercises receive adequate repetitions to achieve a high level of skill;
 - (e) that gives the instructor the freedom to modify a lesson in order to make that session more beneficial to the trainee pilot; and
 - (f) is approved by the Director.
- (7) Every flight or simulator instructor who gives instruction to a person shall;
- (a) begin each training session with a briefing and aural quiz which will ensure the trainee pilot understands;
 - i. what he or she will be practicing in the session: and
 - ii. the maneuvers and procedures sufficiently to undergo the training scheduled for that day.
 - (b) end each session with an in depth debriefing which will ensure the trainee understands any errors made during the lesson and knows what remedial study if any, will be required prior to progressing to the next lesson;
 - (c) prior to being relieved by another instructor on any flight training course, give a comprehensive briefing to that instructor as to the progress being made by the trainee pilot(s), to that point; and

- (d) not recommend any trainee pilot for a proficiency or competency check until the trainee has completed the entire approved flight training course and that trainee's record, indicates that incomplete or deficient areas have been brought to a satisfactory level of achievement.

37. Ketentuan Appendix M dihapus.

Pasal II

Peraturan Menteri ini mulai berlaku pada tanggal diundangkan.

Agar setiap orang mengetahuinya, memerintahkan pengundangan Peraturan Menteri ini dengan penempatannya dalam Berita Negara Republik Indonesia.

Ditetapkan di Jakarta
pada tanggal 27 Juli 2015

MENTERI PERHUBUNGAN
REPUBLIK INDONESIA,

ttd

IGNASIUS JONAN

Diundangkan di Jakarta
pada tanggal 31 Juli 2015

MENTERI HUKUM DAN HAK ASASI MANUSIA
REPUBLIK INDONESIA,

ttd

YASONNA H. LAOLY

BERITA NEGARA REPUBLIK INDONESIA TAHUN 2015 NOMOR 1133

Salinan sesuai dengan aslinya

KEPALA BIRO HUKUM DAN KSLN,

