



**MENTERI PERHUBUNGAN
REPUBLIK INDONESIA**

KEPUTUSAN MENTERI PERHUBUNGAN

NOMOR : KM 18 TAHUN 2002

TENTANG

**PERSYARATAN-PERSYARATAN SERTIFIKASI DAN OPERASI
BAGI PERUSAHAAN ANGKUTAN UDARA NIAGA BERJADWAL DAN
ANGKUTAN UDARA NIAGA TIDAK BERJADWAL**

MENTERI PERHUBUNGAN,

- Menimbang** : a. bahwa dalam rangka memenuhi perkembangan teknologi dan persyaratan pengoperasian pesawat udara sesuai standar dan rekomendasi dari Organisasi Penerbangan Sipil Internasional serta guna menjamin keamanan dan keselamatan penerbangan, maka perlu diatur kembali ketentuan mengenai persyaratan-persyaratan sertifikasi dan operasi bagi perusahaan angkutan udara niaga berjadwal dan angkutan udara niaga tidak berjadwal;
- b. bahwa sehubungan dengan hal tersebut huruf a, maka perlu mencabut Keputusan Menteri Perhubungan Nomor KM 76 Tahun 2000 tentang Persyaratan-persyaratan Sertifikasi dan Operasi Bagi Perusahaan Angkutan Udara Berjadwal dan Charter dengan Keputusan Menteri Perhubungan;
- Mengingat** : 1. Undang-undang Nomor 15 Tahun 1992 tentang Penerbangan (Lembaran Negara Nomor 53 Tahun 1992, Tambahan Lembaran Negara Nomor 3481);
2. Peraturan Pemerintah Nomor 3 Tahun 2001 tentang Keamanan dan Keselamatan Penerbangan (Lembaran Negara Nomor 9 Tahun 2001, Tambahan Lembaran Negara Nomor 4075);
3. Keputusan Presiden Nomor 102 Tahun 2001 tentang Kedudukan, Tugas, Fungsi, Kewenangan, Susunan Organisasi dan Tata Kerja Departemen;
4. Keputusan Presiden Nomor 109 Tahun 2001 tentang Unit Organisasi dan Tugas Eselon I Departemen;
5. Keputusan Menteri Perhubungan Udara Nomor T.11/2/4-U tentang Peraturan-peraturan Keselamatan Penerbangan Sipil, sebagaimana telah diubah terakhir dengan Keputusan Menteri Perhubungan Nomor KM 6 Tahun 2001;

MEMUTUSKAN :

Menetapkan : KEPUTUSAN MENTERI PERHUBUNGAN TENTANG
PERSYARATAN-PERSYARATAN SERTIFIKASI DAN OPERASI
BAGI PERUSAHAAN ANGKUTAN UDARA NIAGA BERJADWAL
DAN ANGKUTAN UDARA NIAGA TIDAK BERJADWAL.

Pasal 1

Ketentuan mengenai Persyaratan-persyaratan Sertifikasi dan Operasi bagi Perusahaan Angkutan Udara Niaga Berjadwal dan Angkutan Udara Niaga Tidak Berjadwal diatur sebagaimana tercantum dalam Lampiran Keputusan ini.

Pasal 2

Pengaturan lebih lanjut mengenai Persyaratan-persyaratan Sertifikasi dan Operasi bagi Perusahaan Angkutan Udara Niaga Berjadwal dan Angkutan Udara Niaga Tidak Berjadwal diatur oleh Direktur Jenderal Perhubungan Udara.

Pasal 3

Sejak berlakunya Keputusan ini, Keputusan Menteri Perhubungan Nomor KM 76 Tahun 2000 tentang Persyaratan-persyaratan Sertifikasi dan Operasi bagi Perusahaan Angkutan Udara Berjadwal dan Charter dinyatakan tidak berlaku.

Pasal 4

Keputusan ini mulai berlaku pada tanggal ditetapkan.

Ditetapkan di : J A K A R T A
Pada tanggal : 4 Maret 2002

MENTERI PERHUBUNGAN

ttd

AGUM GUMELAR, M.Sc.

SALINAN Keputusan ini disampaikan kepada :

1. Menteri Koordinator Bidang Perekonomian;
2. Menteri Negara Riset dan Teknologi;
3. Menteri Kehakiman dan HAM;
4. Menteri Perindustrian dan Perdagangan;
5. Sekretaris Negara;
6. Sekjen, Dirjen Perhubungan Udara dan Kaban Litbang Perhubungan.

Salinan sesuai dengan aslinya
Kepala Biro Hukum dan KSLN,



KALALO NUGROHO
NIP. 120105102

LAMPIRAN KEPUTUSAN MENTERI PERHUBUNGAN

NOMOR : KM 18 TAHUN 2002

TANGGAL : 4 MARET 2002

CIVIL AVIATION SAFETY REGULATIONS (C.A.S.R.)

PART 135
Revision 02

CERTIFICATION AND OPERATING REQUIREMENTS FOR COMMUTER AND CHARTER AIR CARRIERS

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART A - GENERAL

135.1 Definitions and Abbreviations

In this Part the following words and expressions shall be taken to mean:

"Aerial Work Operator" – An air carrier certified to perform a type of speciality air transportation service as listed in section 135.3 (b).

"Aircraft" – Any machine that can derive support in the atmosphere from the reaction of the air other than reactions of the air against the earth's surface.

"Airplane or Aeroplane" – A power driven, heavier than air aircraft, deriving its lift in flight chiefly from aerodynamic reactions on surfaces which remain fixed under given conditions of flight.

"Air Transportation Service" - The operation for remuneration, including positioning flights, of any aircraft which is listed on the air carrier's Air operating certificate.

"AOC" - Air Operator Certificate. A certificate authorizing an operator to carry out specified commercial air transport operations.

"Cabin Altitude" - Means the pressure inside the cabin of an aircraft in flight, expressed in feet above Mean Sea Level (MSL).

"Captain" – A pilot qualified on an aircraft and responsible for the safe operation of that aircraft.

"Certificate" – A document issued by, or on behalf of DGAC which confirms a regulatory standard as described in the document, has been met. A certificate does not convey any authority to act.

"CC" – Competency Check. Any required operational check performed on company personnel (other than flight crewmembers), by company supervisory personnel duly authorised to perform that check.

"CCP" – Company Check Pilot. An employee of an air carrier who is the holder of a delegation of authority issued by the Director, authorizing the conduct of certain types of flight checks.

"Charter Air Carrier" - any air carrier that provides an air transportation service on a non-scheduled basis.

"Co-authority dispatch" – the shared authority between the PIC and flight operations officer in the formulation of an operational flight plan and flight release.



"Commuter Air Carrier" - any air carrier that provides an air transportation service on a scheduled basis.

"Contracting State" – any country or state which is a signatory to the Convention of the International Civil Aviation Organisation, or any other country acceptable to the Director.

"Crewmember" - a person assigned by an air carrier to official duty on board an aircraft.

"DGCP" – Designated Government Check Pilot. A person who is the holder of a delegation of authority issued by the Director, authorizing the conduct of certain types of flight checks.

"Director or (DGAC)" - The Director General of the Directorate General of Air Communication, or any person authorized to act on his behalf.

"ETOPS" – Extended Twin-Engine Operations. Means twin-engine, turbine powered aeroplane operations conducted over specified routes that contain a point further than 60 minutes flying time from an adequate alternate airport, at the aircraft's specified single engine cruise speed, as determined for standard atmospheric conditions, in still air.

"Extended over water operations" – For the purposes of this Part, a flight is considered to be in extended over water operations, when it extends beyond the point where special equipment, procedures and/or passenger briefings are required for such operations. Specific times and distances can be determined for each aircraft type in CASR 135.351 for aeroplanes and 135.353 for helicopters. Also see CASR Part 91.509.

"External Load" – Any cargo load carried by an aircraft which falls into one of the following four load classes:

- (1) Class A is an external cargo load that cannot move freely cannot be jettisoned and does not extend below the landing gear.
- (2) Class B is an external cargo load that can be jettisoned and is lifted free of the land and/or water.
- (3) Class C is an external cargo load that can be jettisoned and remains in contact with the land or water during the rotorcraft operation.
- (4) Class D is an external cargo load other than Class A, B, or C external loads.

"Flight" – An aircraft is deemed to be in flight any time it is no longer in contact with the earth's surface as the result of its weight being supported by the aerodynamic principles and design features of that particular aircraft.

"Flight altitude" Means the altitude above mean sea level at which the aircraft is operated.

"Flight attendant" – a crewmember who performs, in the interest safety of passengers, duties assigned by the operator or the pilot in command of the aircraft, but who shall not act as flight crewmember.



135.3 Applicability

This part prescribes the rules governing:

(a) Any commuter or charter air transportation service utilizing aeroplanes or helicopters which have an approved maximum seating capacity of 30 seats or less, excluding required crewmember seats, or aeroplanes having a maximum payload of 3409 kilograms (7500 pounds) or less considering all disposable loads to be at maximum.

(b) Any air carrier involved in aerial work operations which provides one or more of the following special purpose air transportation services as described in appendix A-A of this Subpart:

- 1) helicopters carrying external loads,
- 2) towing of objects,
- 3) dispersal of products,
- 4) aerial survey and photography, except recreational photography
- 5) air ambulance,
- 6) flight inspection or calibration of air navigation facilities, and
- 7) any other air transportation service considered by the Director to be special purpose in nature.

(c) Each person employed or used by a air carrier conducting operations under this part including maintenance, preventive maintenance, and alteration of aircraft.

(d) Subject to Subsection (b), of this section, or unless otherwise specified, the rules in this part are applicable to all air carriers certified under this Part.

135.5 Rules Applicable to Operations in a Foreign Country

Each air carrier shall, while operating in a foreign country, comply with the air traffic rules of the country concerned and the local airport rules, except where any rule of this part is more restrictive and may be followed without violating the rules of that country.

135.7 Rules Applicable to Operating Aircraft Subject to CASR 121

(a) Where an air carrier is authorized to operate under this Part, applies to operate an aircraft larger than that described in Subsection (a) of section 135.3, it must conduct the entire operation in accordance with CASR Part 121 except,

- (1) as provided in Subsection (b) of section 135.3,
- (2) as specifically authorized by the Director.

135.9 Deviation Authority

(a) The Director may after consideration of the circumstances of a particular operation, issue a deviation from specified sections of this Part, either in whole or in part provided,

- (1) an air carrier submits an application for a deviation in a manner prescribed by the Director,
- (2) the air carrier establishes that an equivalent level of safety is being maintained notwithstanding such deviation, and
- (3) the Director is satisfied that such deviation would provide an acceptable level of safety and be in the public interest.



(b) The type and format of any deviation authority shall be as prescribed by the Director and will specify any terms and conditions required to ensure safety considerations and public interest are being served.

(c) A request for a deviation authority will not place any obligation upon the Director, notwithstanding any previous authorities issued by him.

(d) A deviation authority shall cease to be in force if;

- (1) any of the terms or conditions contained therein, are not being complied with, or
- (2) the Director advises the air carrier of his decision to withdraw the deviation authority.

(e) Where a deviation authority has been rendered, not in force, by the failure to comply with the terms and conditions under which the authority was issued, that may be considered grounds for;

- (1) the withdrawal of the deviation authority,
- (2) the air carrier to be proceeded against as though the rule pertaining to which the deviation authority was issued, has been breached, or
- (3) both actions described in paragraphs (1) and (2) of this subsection may be taken.

(f) Where the Director has issued a notice of withdrawal of a deviation authority, the air carrier may file an appeal against that withdrawal, however such appeal shall not normally constitute a stay of withdrawal.

135.11 (RESERVED)

135.13 (RESERVED)

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART B - CERTIFICATION RULES

135.15 Applicability.

This subpart prescribes certification rules for commuter, charter and aerial work air carriers using aeroplanes or helicopters.

135.17 Requirement to hold an Air Operator Certificate

No person shall engage in any air transportation service within or outside of Indonesia without or in violation of an Air Operator Certificate (AOC) and appropriate operations specifications issued under this part.

135.19 Application for and Issue of an Air Operator Certificate

(a) Each application for an Air Operator Certificate shall be made in the form and manner prescribed by the Director. In making such application, the applicant must demonstrate that in addition to certain financial, economic and legal requirements as laid down in Subsections (d), (e) and (f) of this Section, and:

- (1) he has adequate equipment, facilities and personnel to operate the proposed air transportation service;
- (2) there is published, a system of policies and procedures governing all the activities being proposed by the applicant;
- (3) he has an approved safety program appropriate to the operation in place;; and
- (4) he is able to conduct the air transportation service in a safe and proper manner and in full compliance with all applicable rules and regulations.

(b) For the purposes of certification, no air carrier may list an aircraft and management personnel on its Air Operator Certificate, or operations specifications, if:

- (1) that aircraft is listed on the Air Operator Certificate, or operations specifications of another air carrier; or
- (2) list any manager or director required by this Part, who is listed as a manager or director in the operations specifications of another air carrier.

(c) The submission of an application under this part does not place any obligation upon the Director to issue an Air Operator certificate until:

- (1) he has been given a reasonable time to review the application; and
- (2) is satisfied that all the applicable rules and standards have been met and the issue of the Air Operator certificate will be in the public's best interest.

(d) Each applicant for the original issue of an air operator certificate who intends to conduct operations under this part must submit the following financial information:

- (1) A balance sheet that shows assets, liabilities, and net worth, as of a date not more than 60 days before the date of application;
- (2) An itemization of liabilities more than 60 days past due on the balance sheet date, if any, showing each creditor's name and address, a description of the liability, and the amount and due date of the liability;



135.21 Requirements for the Operation of Single Engine Aircraft

(a) Unless otherwise authorized by the Director, no air carrier shall conduct an air transportation service under this part in a single engine aircraft except:

- (1) in accordance with the AOC and operations specifications,
- (2) in accordance with the visual flight rules,
- (3) during the hours of official daylight, and
- (4) where the aircraft is certified for 10 or more passengers, the minimum flight crew must include a Pilot-in-Command and Second in Command.

(b) No air carrier shall assign a person to act and no person shall act as the pilot-in-command of a single engine aircraft with passengers on board unless the person:

- (1) is the holder of a commercial, or a airline transport pilot licence,
- (2) has acquired not less than 1000 hours flight experience as pilot-in-command of single engine aeroplanes, of which not less than 100 hours shall be cross-country flight experience, and in the case of a single engine helicopter, not less than 500 hours flight experience as pilot in command. In meeting the experience requirements of this paragraph fifty per cent of the required flight experience may be gained as the second in command of an aircraft of the same class and type on which he or she is to serve.
- (3) has acquired not less than 20 hours of operating experience on the specific make and basic model of aircraft. Such operating experience must be acquired while occupying the pilot-in-command position under the supervision of a pilot qualified under this Part, to give flight instruction on that type of aircraft, and
- (4) is otherwise qualified in accordance with this Part.

(c) An air carrier may apply to the Director to operate a single engine aircraft under VFR and IFR conditions where in addition to the requirements laid down in Subsections (a) and (b) of this section, the following conditions are met:

- (1) the aircraft is a turbine powered aircraft,
- (2) the aircraft is carrying cargo only,
- (3) all flights operated under the instrument flight rule shall be operated with a minimum flight crew of 2 pilots, who hold a valid commercial or higher pilot licence and have a valid instrument rating, except a SIC is not required if,
 - (i) each aircraft is equipped with a serviceable three axis autopilot,
 - (ii) each aircraft is equipped with a headset and boom mike and, a transmit button that is affixed to the control wheel,
 - (iii) each aircraft is equipped with a control wheel mounted, approach chart holder with a means of proper illumination,
 - (iv) the flight is not operated above flight level 250,
 - (v) the pilot-in-command has successfully completed a single pilot instrument flight check on that aircraft type,
 - (vi) the pilot has acquired not less than, 75 hours of instrument flight experience as pilot-in-command of which not less than 50 hours must be actual instrument time in an aircraft, and is other wise qualified in accordance with this Part, and
 - (vii) the air carrier's operational control system is certified for the conduct of IFR flight.

- (4) each aircraft equipment and instruments must meet the requirements of Part 91 for visual and instrument flight rules and must be in operating condition prior to the commencement of any take off where IMC is anticipated,
- (5) each air carrier's maintenance program must include for each single engine aircraft operated under the Instrument flight rules, an engine trend monitoring program which has been recommended by the manufacture, or is otherwise acceptable to the Director. Such program must be in accordance with the air carrier's approved maintenance control manual.
- (6) each aircraft is equipped with two independent electrical power generating sources. Each electrical source must be capable of supplying all electrical loads for instruments and equipment essential for IFR flight including any electrically operated ice protection equipment installed on the aircraft. Or where only one generating system is installed in an aircraft, in addition to that electrical source, the aircraft must be equipped with a standby battery. This battery must be capable of supplying 150% of the electrical loads of all instruments and equipment, necessary for the safe emergency operation of the aircraft, for not less than one hour.
- (7) each aircraft shall be equipped with two independent sources of energy, at least one of which is an engine-driven pump or generator, and each of which is able to drive all gyroscopic instruments and is installed so that the failure of one instrument or source of energy will not affect either the energy supply to the remaining instruments, nor the other source of energy, and
- (8) any other requirement considered by the Director to be necessary for the safe operation of such aircraft.

135.23 Validity, Suspension, Revocation and Surrender of an AOC

(a) Every Air Operator certificate shall be considered valid and in force unless:

- (1) the holder voluntarily surrenders it to the Director;
- (2) the Director decides to suspend or revoke the Air Operator certificate either in whole or in part,
- (3) the air carrier knowingly violates a provision of its Air Operator certificate or operations specifications.

(b) Where an Air Operator certificate has been suspended or revoked, it shall be returned to the Director within seven days of receiving notice of suspension or revocation.

135.25 Contents of an Air Operator certificate

(a) Each Air Operator certificate will contain the following information:

- (1) the number of the Air Operator certificate,
- (2) the legal name of the air carrier;
- (3) the date and place of issue of the Air Operator certificate,
- (4) the general conditions attached to the Air Operator certificate; and
- (5) the operations specifications setting forth the nature, conditions and limitations of the proposed air transportation service.

(b) [Reserved]

135.27 Contents of the operations specifications

(a) Each Operations Specification is an attachment to the Air Operator certificate and addresses at least the following standard operational and maintenance areas;

- (1) the business address and telephone number of the air carrier;
- (2) the specific location of the air carrier's home base,
- (3) the organization of flight operations including approved incumbents,
- (4) the maintenance and engineering organization including the approved incumbents,
- (5) the operations and technical manual approval dates,
- (6) the categories of air transportation services authorized,
- (7) the regions of flight operations,
- (8) the flight rules applicable to the service,
- (9) the forms of air transportation services authorized,
- (10) the categories of aircraft approved,
- (11) the maintenance specifications of each aircraft,
- (12) the list of aircraft; and
- (13) any other item the Director determines is relevant to the issue of the Air Operator certificate.

(b) Reserved

135.29 Amendment of an Air Operator Certificate.

(a) An Air Operator certificate may be amended;

- (1) by application from the holder, where the Director rules favourably upon such application, or
- (2) at the Director's discretion where he is of the opinion that such amendment is essential to flight safety and is in the public's best interest.

(b) Where the Director decides to refuse approval of any application made under this subpart, the air carrier may, within 30 days of notification of such refusal, petition the Director to reconsider that decision.

135.31 Amendment to or Additional Operations Specifications

(a) An operations specification may be amended, or additional operations specifications issued;

- (1) upon application by the holder, if the Director determines that;
 - (i) the additions, changes or deviations applied for, are authorized by this part;
 - (ii) such additions, changes or deviations are applied for in a form and manner prescribed by the Director; and,
 - (iii) the Director is of the opinion that an acceptable level of safety can be maintained and such operation would be in the public's best interest.
- (2) at the Director's discretion where he is of the opinion that an amendment to an operations specification is essential to flight safety and is in the public's best interest.

(b) Where the Director decides to refuse approval of any application made under paragraph (a)(1) of this section, the holder may, within 30 days of notification of such refusal, petition the Director to reconsider his decision.

(c) Where the Director decides to amend an operations specification under paragraph (a)(2) of this section, he shall;

(1) give the holder written notice of proposed amendment, stating the reason for such amendment.

(2) allow a reasonable period of time (but not less than seven days) for the holder to make written representation on the matter of the proposed amendment, or the date such amendment would come into force.

(3) after considering any representation, notify the holder of his decision to either impose the amendment, or rescind the notice of proposed amendment.

(d) Except where safety concerns require immediate compliance, where the Director decides to issue the amendment under paragraph (a)(2) of this section, the effective date of that amendment will commence not earlier than 30 days after the date of issue.

(e) The Director may require the holder of an Air Operator certificate to submit for approval, prior to the effective date of any amendment issued under Paragraph (a)(2) of the section, anything deemed necessary to fully comply with the amendment.

135.33 Availability of Air Operator Certificate and Operations Specifications

Each air carrier shall display its air operator certificate and operations specifications at its home base, in an accessible and conspicuous place where it is readily available for inspection by the Director. In complying with this section it is not necessary for the air carrier to display the AOC in a public place, but must be in a location which is not normally locked during business hours and identified in the company operations manual.

135.35 Principal base of operations, maintenance and business office

(a) Each air carrier must maintain principal operations and maintenance base or bases, and a principle business office.

(b) Each air carrier shall notify the Director in writing, at least 30 days in advance, of any change in the address of its principal base of operations, maintenance or business office.

135.37 Inspection authority

Each air carrier and each person employed by the air carrier shall allow the Director, at any time or place, to make any inspections, tests or other such inquiries, to determine its compliance with the CASRs, its Air Operator certificate and operations specifications, or its eligibility to continue to hold its certificate.

135.39 Reserved

135.41 Leasing of Aircraft

(a) Prior to operating an air transportation service with a leased aircraft, an air carrier shall provide to the Director, copy of the lease agreement, or a written memorandum outlining the terms of such arrangement. Where any air carrier whether foreign or domestic, agrees to provide an aircraft to another person certified under this Part, the agreement must state which AOC holder and which AMO as applicable, is proposed to be responsible for providing;

- (1) applicable crewmembers,
- (2) operational control, and
- (3) the maintenance and servicing of that aircraft.

(b) Upon receiving a copy of an agreement, or a written memorandum of the terms thereof, the Director will determine which party to the agreement is deemed to be conducting the air transportation service and will issue an amendment to that air carrier's operations specifications containing the following;

- (1) the names of the parties to the agreement and the duration of the lease,
- (2) the nationality and registration marks of each aircraft involved in the agreement,
- (3) the type of operation as relating to category and forms,
- (4) the areas of operation,
- (5) the specific sections of the CASRs applicable to the operation, and
- (6) where applicable, deviations from crew nationality, or licensing requirements as appropriate.

(c) In making a determination under Subsection (b) of this section, the Director assigns the responsibility under the agreement for the following:

- (1) Crewmember training
- (2) Airworthiness and performance of maintenance
- (3) Dispatch and flight watch
- (4) Servicing the aircraft
- (5) Scheduling
- (6) Any other factors the Director considers relevant.

(d) After a review of the leasing arrangement, if a foreign operator is considered responsible for the operation of the leased aircraft, each route segment must include either a takeoff or a landing to or from a foreign airport.

135.43 Required Management Personnel

(a) Each applicant for a certificate under this subpart must show that it has sufficient qualified management personnel to provide adequate direction in all operational matters and ensure an acceptable level of safety is being maintained. Such personnel must be employed on a full time basis in at least the following or equivalent positions:

- (1) Managing or President Director
- (2) Director of Safety (Company Aviation Safety Officer)
- (3) Director of Operations
- (4) Chief Pilot
- (5) Chief of Flight Attendants (as applicable)

- (6) Director of Maintenance
- (7) Chief Inspector
- (8) Other supervisory positions required by Subsection (c) of this section.

(b) Where an air carrier chooses to rename the managerial positions listed in Subsection (a) of this section, the organization chart must indicate which position the changed title is intended to replace.

(c) In consideration of the scope and size of an air carrier, where the Director is satisfied that it would be more appropriate, or in the interest of safety, he may approve or require, the development of:

- (1) alternate positions,
- (2) a different number of positions, or,
- (3) the assignment of more than one position to one person. .

(d) Each air carrier shall submit for approval, the names of the persons nominated to each position required by this subpart on an acceptable nomination form, giving sufficient details to demonstrate that the candidates qualifications, experience and background.

(e) Where any change to the list of approved managers is proposed or has taken place beyond the company's control, the company shall notify the Director within 7 days, of any temporary assignments to these positions and within 30 days, submit a nomination requesting approval for the new candidate.

(f) Failure of any manager approved under this part to discharge their responsibilities in a safe and proper manner, may be grounds for revocation by the Director, of that approval.

135.45 Minimum Qualifications of Management Personnel

(a) No person may serve as a managing or president director where the DGAC has reason to believe, given the background of such person, that he or she is likely to present a threat to the safe and proper operations of the air carrier.

(b) No person may serve as a Director of Safety unless his experience, qualifications and background are acceptable to the Director, and that person:

- (1) has a sound knowledge of the air carrier's Air Operator certificate, operations specifications, and the company operations and technical manuals,
- (2) has received specialized training in safety related courses which in the opinion of the Director are sufficient to prepare him for the duties and responsibilities of a safety director. In making his determination the Director will consider the scope and size or the complexity of the air carrier's operations.

(c) No person may serve as Director of Operations unless he:

- (1) knows the contents of the air carrier's company operations manual and operations specifications, and the provisions of this part necessary to the proper performance of his duties; and



(2) holds, or has held, an airline transport pilot licence (or a commercial pilot licence if none of the aircraft utilized by the air carrier require an airline transport licence as specified by this part), and

(3) has had at least three years experience as pilot-in-command of similar types of aircraft with which the operations are to be conducted; or

(4) has had at least three years experience as Director of Operations or a position of comparable responsibility with an air carrier using similar types of aircraft.

(d) No person may serve as Chief Pilot unless that person:

(1) holds a current airline transport pilot licence with appropriate ratings, or a commercial pilot licence, with appropriate ratings, if none of the aircraft utilized by the air carrier have a maximum certified take off weight of greater than 12,500 pounds.

(2) has accumulated not less than 1000 hours as pilot-in-command on similar types of aircraft or, within the preceding five years, has acted as pilot-in-command for at least three years and accumulated not less than 500 hours as pilot-in-command on similar types of aircraft with an air carrier: and

(3) knows the contents of the air carrier's manual and operations specifications, and the provisions of this part necessary to the proper performance of his duties.

(e) No person may serve as the chief of flight attendants unless that person:

(1) holds a flight attendant certificate, endorsed for the most sophisticated type of aircraft operated by the company.

(2) Has had at least five years experience as a flight attendant on similar types of aircraft and similar types of operations of which at least one year was in a supervisory capacity, and

(3) has a working knowledge of the flight attendant manual, flight attendant training manual, and relevant portions of the CASRs and company operations manual.

(f) No person may serve as Director of Maintenance unless he:

(1) Holds an appropriate AME licence, or equivalent qualifications acceptable to the Director,

(2) has had at least five years of experience in the maintenance of similar types of aircraft with which the operations are to be conducted, one year of which must have been in a supervisory capacity, and

(3) knows the maintenance parts of the air carrier's company operations manual and operations specifications and the applicable maintenance provisions of this part.

(g) No person may serve as Chief Inspector unless he:

(1) Holds an appropriate AME license which has been valid for at least five years.

(2) has had at least three years of diversified maintenance experience on similar types of aircraft with which the operations are to be conducted with an Air Operator or A.M.O., one year of which must have been as a maintenance inspector: and

(3) knows the maintenance parts of the air carrier's manual and operations

(3) knows the maintenance parts of the air carrier's manual and operations specifications, and the applicable maintenance provisions of this part.

(h) No air carrier may assign a person to act in a position of management over operational matters or personnel, unless;

(1) an official management position has been created in accordance with Section 135.43(c), and is published in the organization chart.

(2) a list of minimum qualifications the incumbent must possess is published in the COM, and

(3) the information required by Section 135.47 is published in the COM.

(i) Where an applicant files for a deviation to any qualification listed in this section, the Director may after consideration, decide to give an exemption to certain qualifications where,

(1) The person's experience, qualifications and background are acceptable to the Director,

(2) the scope and size of the proposed operations is such that a lower level of qualifications would be acceptable to achieve a satisfactory level of safety, and

(3) at the discretion of the Director, the manager nominee agrees to undergo an examination to test his suitability for the position.

135.47 Duties and Responsibilities of Managerial Personnel

(a) Each air carrier shall set forth in its COM;

(1) the area of responsibility for each management position,

(2) the specific duties in sufficient detail, to demonstrate how the assigned area of responsibility will be fulfilled, and

(3) the reporting relationship of the personnel required by Subsections (a) and (c) of section 135.43 and the authority delegated to each incumbent.

(b) An air carrier must show in its organization chart and by description, how it will coordinate the input from company departments or persons, that are not regulated by this Part. In any case the procedures laid down for this purpose must ensure that all non operational considerations are reviewed by the director of operations, or the director of maintenance as appropriate, and that such input will not jeopardize operational control.

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SUBPART C – Operating Rules for Aerial Work Air Operations

135.51 Applicability

This subpart prescribes rules governing the specific operations of any air carrier that is the holder of an operations specification issued under this part, authorizing aerial work operations pursuant to Subsection 135.03(b) of this part.

135.53 Helicopter External Cargo Loads Operating Rules

(a) Each air carrier authorized in its operations specifications to carry external loads by a helicopter shall perform such operations in accordance with the rules laid down in Sections 135.53 to 135.67.

(b) Upon making an application for an operations specification pursuant to section 135.31 authorizing the carriage of external loads in a helicopter, an air carrier must demonstrate to the Director by performing the operational flight checks prescribed in Subsections (c), (d) and (e) of this section as applicable;

- (1) that the rotorcraft/load combination has satisfactory flight characteristics, unless these operational flight checks have been demonstrated previously and the rotorcraft/load combination flight characteristics were satisfactory. For the purposes of this demonstration, the external load weight (including the external load attaching means) is the maximum weight for which authorization is requested, and
- (2) the proposed operation meets all the applicable sections of this Part.

(c) Class A rotorcraft/load combinations: The operational flight check must consist of at least the following maneuvers:

- (1) Takeoff and landing
- (2) Demonstration of adequate directional control while hovering
- (3) Acceleration from a hover
- (4) Horizontal flight at airspeeds up to the maximum airspeed for which authorization is requested.

(d) Class B and D rotorcraft/load combinations: The operational flight check must consist of at least the following maneuvers:

- (1) Pickup of the external load
- (2) Demonstration of adequate directional control while hovering
- (3) Acceleration from a hover
- (4) Horizontal flight at airspeeds up to the maximum airspeed for which authorization is requested
- (5) Demonstrating appropriate lifting device operation
- (6) Maneuvering of the external load into release position and its release, under probable flight operation conditions, by means of each of the quick release controls installed on the rotorcraft

(e) Class C rotorcraft/load combinations: For Class C rotorcraft/load combinations used in wire stringing, cable laying, or similar operations, the operational flight check must consist of the maneuvers, as applicable, prescribed in paragraph (c) of this section.

135.55 Emergency Provisions With External Loads

(a) In an emergency involving the safety of persons or property, the air carrier may deviate from the rules of this part to the extent required to meet that emergency.

(b) Each person who deviates from a rule pursuant to Subsection (a) of this section, shall notify the Director within 10 days after the deviation;

- (1) as to the circumstances requiring the deviation,
- (2) the outcome resulting from the deviation, and
- (3) any additional information the Director may request .

135.57 Specific Operating Rules for External Cargo Loads

(a) No person may conduct a rotorcraft external load operation without, or contrary to, the Rotorcraft/Load Combination Flight Manual published pursuant to section 135.147 of this Part.

(b) No person shall operate a helicopter with an external load that is substantially different from any other rotorcraft/load combination that person has operated with, whether or not such combination is within the same class, unless;

- (1) the pilot determines that the rotorcraft/load combination is within the weight and balance limitations for that aircraft,
- (2) the external load is securely fastened in a manner does not interfere with any device provided for its emergency release,
- (3) the pilot shall conduct an initial liftoff to verify satisfactory controllability,
- (4) while in the hover, the pilot shall verify that directional control is adequate,
- (5) Accelerate into forward flight to verify that no rotorcraft, or external load attitude is encountered in which the rotorcraft is uncontrollable or otherwise hazardous,
- (6) In forward flight, check for hazardous oscillations of the external load, but if the external load is not visible to the pilot, other crewmember or ground personnel may make this check and signal the pilot,
- (7) Increase the forward airspeed and determine an operational airspeed at which no hazardous aerodynamic turbulence is encountered

(c) The performance of any check prescribed above shall be in a manner that will not endanger persons or property on the surface and may be modified as the Director determines is appropriate for the rotorcraft/load combination in question.

(d) Notwithstanding the provision of Part 91 of the CASRs, an air carrier authorized to operated under this Part may conduct external load operations over congested areas if those operations are conducted without hazard to persons or property on the surface and comply with following:

- (1) The operator must develop a plan for each complete operation, coordinate this plan with the DGAC Office having jurisdiction over the area in which the operation

will be conducted, and obtain approval for the operation. The plan must include an agreement with the appropriate subdivision that local officials will exclude unauthorized persons from the area in which the operation will be conducted, coordination with air traffic control, if necessary, and a detailed chart depicting the flight routes and altitudes.

(2) Each flight must be conducted at an altitude, and on a route, that will allow a jettisonable external load to be released, and the rotorcraft landed, in an emergency without hazard to persons or property on the surface.

(e) Notwithstanding the provisions of Part 91 of the CASRs, and subject to Section 135.59 (c), the holder of a Rotorcraft External Load Operator Certificate may conduct external load operations, including approaches, departures, and load positioning maneuvers necessary for the operation, below 500 feet above the surface and closer than 500 feet to persons, vessels, vehicles, and structures, if the operations are conducted without creating a hazard to persons or property on the surface.

(f) No person may conduct rotorcraft external load operations under IFR unless specifically approved by the Director General. However, under no circumstances may a person be carried as part of the external load under IFR.

135.59 Operating Limitations with External Loads

In addition to the operating limitations set forth in the approved Rotorcraft Flight Manual, and to any other limitations the Director General may prescribe, the operator shall establish at least the following limitations and set them forth in the Rotorcraft/Load Combination Flight Manual for rotorcraft/load combination operations:

(a) The rotorcraft/load combination may be operated only within the weight and center of gravity limitations established in accordance with section 135.63(c).

(b) The rotorcraft/load combination may not be operated with an external load weight exceeding that used in showing compliance with section 135.53 and 135.63.

(c) The rotorcraft/load combination may not be operated at airspeeds greater than those established in accordance with section 135.53 (c), (d), and (e).

(d) No person may conduct an external load operation under this part with a rotorcraft type certificated in the restricted category under section 21.25 of the CASRs over a densely populated area, in a congested airway, or near a busy airport where passenger transport operations are conducted.

135.61 Carriage of Persons with External Loads

(a) No air carrier may allow a person to be carried during rotorcraft external load operations unless that person:

- (1) is a flight crewmember,
- (2) is a flight crewmember trainee,
- (3) performs an essential function in connection with the external load, or

(4) is necessary to accomplish the work activity associated with that operation.

(b) prior to commencing any external load operation the pilot on command shall ensure that any person referred to in this Section is briefed on all normal, abnormal or emergency procedures as appropriate and with respect to the equipment used in the external load operation.

135.63 Structures and Design for External Loads

(a) External load attaching means. Each external load attaching means must have been approved under:

- (1) Part 27 or 29 of the CASRs, as applicable, irrespective of the date of approval; or
- (2) Section 21.25 of the CASRs.

(b) Quick release devices. Each quick release device must have been approved under:

- (1) Part 27 or 29 of the CASRs, as applicable;
- (2) Section 21.25 of the CASRs, except the device must comply with section 27.865 (b) and section 29.865 (b), as applicable, of the CASRs.

(c) Weight and center of gravity:

- (1) Weight. The total weight of the rotorcraft/load combination must not exceed the total weight approved for the rotorcraft during its type certification.
- (2) Center of gravity. The location of the center gravity must, for all loading conditions, be within the range established for the rotorcraft during its type certification. For Class C rotorcraft/load combinations, the magnitude and direction of the loading force must be established at those values for which the effective location of the center of gravity remains within its established range.

(d) The rotorcraft/load combination of Class D may be conducted only in accordance with the following:

- (1) The rotorcraft to be used must have been type certificated under transport Category A for the operating weight and provide hover capability with one engine inoperative at that operating weight and altitude.
- (2) The rotorcraft must be equipped to allow direct radio intercommunication among required crewmembers.
- (3) The personnel lifting device must be DGAC approved.
- (4) The lifting device must have an emergency release mechanism requiring two distinct actions.

135.65 Markings and Placards Relating to External Loads

The following markings and placards must be displayed conspicuously and must be such that they cannot be easily erased, disfigured, or obscured:

(a) A placard (displayed in the cockpit or cabin) stating the class of rotorcraft/load combination for which the rotorcraft has been approved and the occupancy limitation prescribed in section 135.59 (a).

(b) A placard, marking, or instruction (displayed next to the external load attaching means) stating the maximum external load prescribed as an operating limitation in section 135.53(b),(c) and (d).

135.67 Airworthiness Certification for External Cargo Loads

A Rotorcraft External Load Operator Certificate is a current and valid airworthiness certificate for each rotorcraft type certificated under Part 27 or 29 of the CASRs and listed by registration number in the air carrier's operations specifications, when the rotorcraft is being used in operations conducted under this part.

135.69 Operating Rules for the Dispersal of Products

(a) Each air carrier authorized in its operations specifications to disperse any product from an aircraft shall perform such operations in accordance with the any Advisory Circular which has been published for the purpose of establishing operating rules for the specific operation being performed.

(b) Each person who is authorized to perform agriculture aircraft operations as provided in CASR Part 137, shall conduct such operation in accordance with that Part, except:

(1) where the air carrier has been authorized in its operations specifications issued pursuant to this Part, to conduct dispersal of products operations, that carrier will have been deemed to have satisfied the certification requirements of Part 137.

(2) notwithstanding Paragraph (1) of this subsection, the Director may order any additional certification requirements he deems appropriate to the particular operation being conducted or proposed.

135.71 [Reserved]

135.73 [Reserved]

135.75 [Reserved]

135.77 [Reserved]

135.79 [Reserved]

135.81 [Reserved]

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART D - FLIGHT SAFETY PROGRAM

135.83 Applicability

This subpart prescribes the standards for each air carrier authorized to operate under this part, required to maintain a flight safety program.

135.85 Flight Safety Program

(a) An air carrier shall develop and maintain on a continuing basis, a Flight Safety Program (FSP), that is appropriate to the scope and size of its operation and has a high capability to detect, analyze and mitigate any risks which may pose a threat to the safety of that air carriers operations.

(b) An air carrier shall nominate to the DGAC for approval, a Director of Safety or equivalent position, who meets the qualifications as laid down in Section 135.45 (b) of this Part.

(c) An air carrier shall publish in its COM the details of its flight safety program which, except as authorized by the Director, must include at least the following program elements;

- (1) Air Carrier's Management Plan,
- (2) Qualifications of the Flight Safety Person,
- (3) Responsibilities of the Flight Safety Person,
- (4) Training for the Flight Safety Person,
- (5) Incident Management,
- (6) Flight Safety Committee,
- (7) Emergency Response Planning,
- (8) Communication and Safety Education

(d) Where the details of an air carrier's flight safety program deal with matters of security, any sensitive information which could jeopardize the security or safety of an aircraft shall not be published in the COM. In such cases, information which is considered classified for security purposes, will be protected by the air carrier in a manner that is acceptable to the Director.

(e) The Director may perform special safety audits on an air carrier's safety department to assess the effectiveness of its flight safety program.

(f) The flight safety program referred to in this section may be published in the air carrier's COM or as a separate manual forming part of the Company Operations Manual, but must meet the standards laid down in Advisory Circular entitled, "Air Carrier Flight Safety Program".

(g) Appendix D-A DESCRIPTION OF ELEMENTS FOR A FLIGHT SAFETY PROGRAM has been published for the purpose of giving guidance for the development of the program.

135.87 Reserved

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART E - APPROVAL OF ROUTES

135.89 Applicability

This subpart prescribes the rules for obtaining approval of routes by an air carrier operating under this Part.

135.91 Requirements for route approval

(a) Except when authorized by the Director, no air carrier shall release a flight and no person shall operate a flight under the instrument flight rules (IFR), or instrument flight conditions, (IMC), in uncontrolled airspace unless such flight is released or conducted along an approved route listed in the air carrier operations specifications.

(b) The Director may approve a route outside of controlled airspace if he determines that traffic density is such that an adequate level of safety can be assured and the air carrier makes an application for approval. In making an application for an approved route an air carrier shall;

(1) by means of aeronautical charts or other approved documents, establish the minimum obstruction clearance altitude (MOCA) along each segment of the route. The MOCA for each route segment must ensure a minimum of 2000 feet vertical clearance above the highest obstacle located within a horizontal distance of 10 miles from the centerline of the route.

(2) by means of mathematical formula or practical demonstration, establish the minimum enroute altitude (MEA) based upon Minimum Reception Altitude (MRA) which will ensure line of sight navigation aid signal reception along the entire route or route segment. The MRA along a route may be established by calculating the square root of the altitude above a station and multiplying by 1.25. For example the sq. root of 3000 feet is 54.7 X 1.25 = 68 nautical miles. This line of sight MRA measurement must now be adjusted upwards to offset the effects of mountainous terrain and be rounded off to the next highest 100 feet. The MEA is then determined by selecting the lowest flight level above the MOCA or the MRA for the appropriate direction of flight whichever is higher. The director may allow a deviation to this requirement where it can be demonstrated that an equivalent degree of accuracy and reliability can be assured by celestial or other specialized navigation equipment.

(3) publish for each route segment;

- (i) the TO/From route segment,
- (ii) Magnetic track,
- (iii) MOCA, in feet,
- (iv) MEA, in feet,
- (v) distance, in nautical miles, between fixes or waypoints,
- (vi) the navigation aid, giving;
 - (A) name
 - (B) frequency,
 - (C) identification,

(vii) transition informations including any pertinent crossing altitudes which will ensure the safe operation of aircraft from the final airway fix to;

(A) the initial approach fixes for each instrument approach at all airports being serviced by that route.

(B) from the missed approach point of each instrument approach procedure to the airway entry fix for that route,

(C) from all specified departure fixes, to the entry fix for that route.

(D) special performance information where the climb gradients required for any transition exceed 200 feet vertical per nautical mile horizontal distance.

(4) demonstrate that the communication facilities and MEAs along the route are such as will provide air/ground communication between ATC and the aircraft, or between the aircraft and the company, sufficient to ensure compliance with;

(i) the instrument flight rules, and

(ii) the flight watch and /or flight following requirements laid down in this Part and the air carrier operations manual.

(c) In addition to the foregoing route requirements an applicant for a route approval shall show that there are available, sufficient airports which meet the criteria set forth in Section 135.93 of this subpart.

(d) Where in the opinion of the Director it is necessary to ensure flight safety, he may require additional, or an amendment to the requirements laid down in this section including the provisions of Section 135.93 of this subpart. In making any such order, the Director will establish a reasonable time period for an air carrier to comply with the new requirements.

135.93 Airport Requirements

(a) Each air carrier must show that there are sufficient adequately equipped airports along any proposed route. For the purposes of this section an adequate airport is one which meets or exceeds the following considerations as applicable to the air transportation service being conducted.

(1) runway length and surface,

(2) obstructions on the approach and departure end of runways must not adversely effect the safe operation of the aircraft being used, and appropriate hazard markings and lighting are serviceable and functioning when in use,

(3) facilities for the safe and proper movement of passengers to and from the aircraft,

(4) airport marking and lighting as appropriate,

(5) emergency and fire fighting equipment and personnel as appropriate,

(6) published at least one instrument and night manoeuvring approach

(7) any other facility, equipment or service deemed necessary for the intended operation.

(b) No pilot of an aircraft carrying passengers at night may takeoff from, or land on, an airport unless;

(1) that pilot has determined the wind direction from local ground communications, or an illuminated wind direction indicator or, in the case of takeoff, that pilot's personal observations; and

(2) the limits of the area to be used for takeoff are clearly shown

(i) for aircraft, by boundary or runway marker lights;

(ii) for helicopters, by boundary or runway marker lights or reflective material.

(c) Each air carrier must show that it has an approved system for obtaining, maintaining, and distributing to appropriate personnel current aeronautical data for each airport it uses (if this information is published for those airports) to ensure a safe operation at that airport. The aeronautical data must include the following:

(1) Airports.

(i) Facilities.

(ii) Public protection.

(iii) Navigational and communications aids.

(iv) Construction affecting takeoff, landing, or ground operations.

(v) Air traffic facilities.

(2) Runways, clearways and stopways.

(i) Dimensions.

(ii) Surface



(1) that pilot has determined the wind direction from local ground communications, or an illuminated wind direction indicator or, in the case of takeoff, that pilot's personal observations; and

(2) the limits of the area to be used for takeoff are clearly shown

(i) for aircraft, by boundary or runway marker lights;

(ii) for helicopters, by boundary or runway marker lights or reflective material.

(c) Each air carrier must show that it has an approved system for obtaining, maintaining, and distributing to appropriate personnel current aeronautical data for each airport it uses (if this information is published for those airports) to ensure a safe operation at that airport. The aeronautical data must include the following:

(1) Airports.

(i) Facilities.

(ii) Public protection.

(iii) Navigational and communications aids.

(iv) Construction affecting takeoff, landing, or ground operations.

(v) Air traffic facilities.

(2) Runways, clearways and stopways.

(i) Dimensions.

(ii) Surface.

(iii) Marking and lighting systems.

(iv) Elevation and gradient.

(3) Displaced thresholds.

(i) Location.

(ii) Dimensions.

(iii) Takeoff or landing or both.

(4) Obstacles.

(i) Those affecting takeoff and landing performance computations in accordance with Subpart I of this part.

(ii) Controlling obstacles.

(iii) Minimum descent altitudes for 100 mile, 25 mile and 10 mile radii

(5) Instrument flight procedures.

(i) Departure procedure.

(ii) Approach procedure.

(iii) Missed approach procedure.

(6) Special information.

(i) Runway visual range measurement equipment.

(ii) Prevailing winds under low visibility conditions.

(d) Where in the opinion of the Director it is necessary to ensure flight safety, he may require additional, or amendment to the requirements laid down in this section. In making any such order, the Director will establish a reasonable time period for an air carrier to comply with the new requirement.

135.95 (RESERVED)

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART F - CABIN SAFETY

135.97 Applicability

This Subpart prescribes the rules for cabin safety applicable to all persons on board aircraft and air carriers operating under this Part.

135.99 Compliance with Briefings or Safety Instructions and Carriage of Fire Arms

(a) Each person on board an aircraft shall comply with the briefings and safety instructions given to them by any person assigned to act as a crewmember on board that aircraft, or any sign or placard posted for that purpose of giving such safety instructions.

(b) No air carrier shall allow and no person shall attempt to carry a firearm on board an aircraft unless;

- (1) that person is a police officer, and
- (2) such firearm is not loaded and no ammunition is carried in the aircraft cabin.

135.101 Flight attendants

(a) Subject to Subsections (b) and (c) of this section, no air carrier shall operate an aircraft with passengers on board, unless at least the following number flight attendants are on board.

- (1) 1 to 30 passengers on board, one flight attendant.

(b) Notwithstanding subsection (a) of this section, no air carrier shall operate an aircraft with passengers on board, with fewer flight attendants than the number required to satisfy the following conditions;

- (1) where the air carrier has been authorized to extend a flight duty time limitation and such extension requires the carriage of additional flight attendants.
- (2) where due to extenuating circumstances, it has been determined that additional flight attendants are required to satisfy the passenger emergency evacuation requirements.

(c) Notwithstanding Subsection (a) of this section, an air carrier may operate an aircraft with passengers on board, without a flight attendant provided;

- (1) the aircraft is certified for a maximum of 18 or fewer passenger seats,
- (2) the pilots are capable from their normal crew stations, to maintain throughout the flight, visual and aural monitoring of all passengers on board, and
- (3) the flight crew are trained in the company procedures for the, supervision, briefing and handling of the passengers for all normal and emergency conditions.

(d) Where a flight has been assigned more than one flight attendant, the air carrier shall designate an in-charge flight attendant.

135.103 Flight Attendant Qualifications

No air carrier shall assign and no person, shall act in the capacity of a flight attendant on an aircraft, unless that person is qualified in accordance with section 135.393 of this Part.

135.105 Crewmember requirements at station stops

(a) No air carrier shall allow passengers to remain on board the aircraft during station stops unless;

- (1) the passengers are supervised by a flight attendant on board the aircraft, or,
- (2) on aircraft which do not require a flight attendant, a person who has been trained in the emergency evacuation procedure for that aircraft; or
- (3) Nearby the aircraft, in a position to adequately monitor passenger safety, and
 - (i) The aircraft engines are shut down; and
 - (ii) At least one floor level exit remains open to provide for the deplaning of passengers.

135.107 Briefing passengers

(a) Each air carrier operating a passenger-carrying aircraft shall ensure that all passengers are orally briefed by the appropriate crewmember or by pre-recorded information, on at least the following items;

(1) Before each takeoff;

(i) Smoking. Each passenger shall be briefed on when, where, and under what conditions smoking is prohibited. This briefing shall include a statement that the Civil Aviation Safety Regulations require passenger compliance with the lighted passenger information signs, posted placards, areas designated as no smoking areas. The briefing shall also include where applicable, a statement that Indonesian regulations prohibit tampering with, disabling, or destroying any smoke detector in an aeroplane lavatory.

(ii) The location of emergency exits, and as applicable the escape routes including floor track lighting,

(iii) The use of safety belts, including instructions on how to fasten and unfasten the safety belts. Each passenger shall be briefed on when, where, and under what conditions the safety belt must be fastened about that passenger. This briefing shall include a statement that the Civil Aviation Safety Regulations require passenger compliance with all passenger information signs and crewmember instructions concerning the use of safety belts.

(iv) The location and use of any required emergency flotation means.

(v) Where the aircraft is of a pressurized type and the flight is to be operated at or above flight level 250, a demonstration on the use of the oxygen system including procedures for assisting small children or others requiring assistance.

(vi) On operations that do not use a flight attendant, the following additional information;

(A) The placement of seat backs in an upright position before takeoff and landing,

(B) Location of survival equipment and first aid kits,

(C) If the flight involves operations above 12,000 MSL, the normal and emergency use of oxygen. and

(D) Location and operation of fire extinguishers.

(2) Prior to the first takeoff, each person who agrees to provide assistance to another person who would be in need of such assistance during an emergency evacuation shall be briefed by a required crewmember;

(i) on the routes to each appropriate exit and on the most appropriate time to begin moving to an exit in the event of an emergency; and

(ii) in consultation with the person, as to the most appropriate manner of assisting him or her, so as to prevent pain and further injury.

The requirements of this paragraph do not apply when the crewmembers on duty have been advised as to the most appropriate manner of assisting the person so as to prevent pain and further injury.

(3) After each takeoff, immediately before or immediately after turning the seat belt sign off, an announcement shall be made that passengers should keep their seat belts fastened, while seated, even when the seat belt sign is off.

(4) During flight passenger announcements shall be made to ensure all safety rules are being complied with.

(5) Prior to each landing the passengers shall be briefed with respect to the requirements to return seatbacks and chair tables to the full upright and stowed position and to ensure seatbelts are securely fastened. This briefing should also ensure all smoking material has been extinguished prior to landing.

(6) Immediately after landing, passenger briefings shall be made to ensure all safety rules are being complied with until the aircraft comes to its final stop.

(b) Each air carrier shall provide a passenger safety briefing card which illustrates by means of pictures or diagrams all the information required by this section and shall be located at each passenger seat. Passenger safety briefing cards supplementing the oral briefing must be of sufficient detail so as to give clear instruction with respect to;

(1) the methods of accessing and operating, the emergency exits; and

(2) the use of all required emergency equipment on board that aircraft which may be applicable to the flight to be undertaken.

(c) Each card required by this section must represent the actual make, model and configuration of aircraft it is intended for and shall be submitted to the Director for approval.

(d) The air carrier shall describe in its manual the procedure to be followed in the briefing required by Paragraph (a) of this section.

135.109 Briefing Passengers for Extended Overwater Operations.

(a) In addition to the oral briefing required by Section 135.107, each air carrier operating an aeroplane in extended overwater operations shall ensure that all passengers are orally briefed by the appropriate crewmember on the location and operation of life preservers, life rafts, and other flotation means, including a demonstration of the method of donning and inflating a life preserver.

(b) The air carrier shall describe in its manual the procedure to be followed in the briefing required by Paragraph (a) of this section.

(c) If the aircraft proceeds directly over water after takeoff, or the briefing will be given by a flight crewmember, the briefing required by Paragraph (a) of this section must be done before takeoff.

(d) If the aircraft does not proceed directly over water after takeoff, no part of the briefing required by Paragraph (a) of this section has to be given before takeoff, but the entire briefing must be given before reaching the overwater part of the flight.

135.111 Cabin Preparation

(a) No person may cause an aeroplane carrying passengers to be moved on the surface, takeoff, or land unless each automatically deployable emergency evacuation device, is set for automatic deployment.

(b) Each air carrier shall ensure that, at all times passengers are on board prior to aeroplane movement on the surface, at least one floor-level exit provides for the egress of passengers through normal or emergency means.

(c) No air carrier may move an aircraft on the surface, takeoff, or land when any food, beverage, or tableware furnished by the air carrier is located at any passenger seat.

(d) No air carrier may move an aircraft on the surface, takeoff, or land unless each food and beverage tray and seat back tray table is secured in its stowed position.

(e) No air carrier may permit an aircraft to move on the surface, takeoff, or land unless each passenger serving cart is secured in its stowed position.

(f) No air carrier may permit an aircraft to move on the surface, takeoff, or land unless each movie screen that extends into an aisle is stowed.

135.113 Retention of Galley Equipment

The air carrier must provide and use means to prevent each item of galley equipment and each serving cart, when not in use, and each item of crew baggage, which is carried in a passenger or crew compartment from becoming a hazard by shifting under the appropriate load factors corresponding to the emergency landing conditions under which the aeroplane was type certificated.

135.115 Carry-on Baggage.

(a) No air carrier may allow any carry-on baggage to be brought onboard an aeroplane unless it has been determined that each passenger's baggage does not exceed the baggage allowance prescribed in the air carrier's company operations manual.

- (1) An approved seat or berth for each person on board the aircraft who has reached his or her second birthday: and
- (2) An approved safety belt for separate use by each person on board the aircraft who has reached his or her second birthday, except that two persons occupying a berth may share one approved safety belt and two persons occupying a multiple lounge or divan seat may share one approved safety belt during enroute flight only.

(b) Except as provided in this paragraph, each person on board an aircraft operated under this part shall occupy an approved seat or berth with a separate safety belt properly secured about him or her during movement on the surface, for takeoff, and for landing. A safety belt provided for the occupant of a seat may not be used by more than one person who has reached his or her second birthday. Notwithstanding the preceding requirements, a child may:

- (1) Be held by an adult who is occupying an approved seat or berth if that child is not yet two years old: or
- (2) Notwithstanding any other requirement of the CASRs, occupy a child restraint system furnished by the air carrier or one of the persons described in Paragraph (b)(2)(i) of this section, provided that:
 - (i) The child is accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to care for the safety of the child during the flight: and
 - (ii) The air carrier complies with the following requirements:
 - (A) The restraint system must be properly secured to an approved forward-facing seat or berth: and
 - (B) The child must be properly secured in the restraint system and must not exceed the specified weight limit for the restraint system.

(c) No air carrier may prohibit a child, if requested by the child's parent, guardian, or designated attendant, from occupying a child restraint system furnished by the child's parent, guardian, or designated attendant, provided the child holds a ticket for an approved seat or berth, or such seat or berth is otherwise made available by the air carrier for the child's use, and the requirements contained in Paragraphs (b)(2)(i) and (b)(2)(ii) of this section are met. This section does not prohibit the air carrier from providing child restraint systems or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.

(d) Each aeroplane sideward facing seat must comply with the applicable requirements of Section 25.785(c) of the CASRs.

(e) Except as provided in Paragraphs (e)(1) through (e)(2) of this section, no air carrier may take off or land an aeroplane unless each passenger seat back is in the upright position. Each passenger shall comply with instructions given by a crewmember in compliance with this paragraph.

- (1) This paragraph does not apply to seats on which cargo or persons who are unable to sit erect for a medical reason are carried in accordance with procedures in



(c) Each passenger shall comply with instructions given by a crewmember or other authorized employee of the air carrier implementing exit seating restrictions established in accordance with this section.

(d) Each air carrier shall include on passenger information cards, presented in the language in which briefings and oral commands are given by the crew, at each exit seat affected by this section, information that, in the event of an emergency in which a crewmember is not available to assist, a passenger occupying an exit seat may use if called upon to perform the following functions:

- (1) Locate the emergency exit:
- (2) Recognize the emergency exit opening mechanism:
- (3) Comprehend the instructions for operating the emergency exit:
- (4) Operate the emergency exit:
- (5) Assess whether opening the emergency exit will increase the hazards to which passengers may be exposed:
- (6) Follow oral directions and hand signals given by a crewmember:
- (7) Stow or secure the emergency exit door so that it will not impede use of the exit:
- (8) Assess the condition of an escape slide, activate the slide, and stabilize the slide after deployment to assist others in getting off the slide:
- (9) Pass expeditiously through the emergency exit: and
- (10) Assess, select, and follow a safe path away from the emergency exit.

(e) Each air carrier shall make available for inspection by the public at all passenger loading gates and ticket counters at each airport where it conducts passenger operations, written procedures established for making determinations in regard to exit row seating.

(f) No air carrier may allow taxi or pushback unless at least one required crewmember has verified that no exit seat is occupied by a person the crewmember determines is likely to be unable to perform the applicable functions listed in Paragraph (d) of this section.

(g) Each air carrier shall include in its passenger briefings a reference to the passenger information cards.

(h) An air carrier may deny transportation to any passenger under this section only because:

- (1) The passenger refuses to comply with instructions given by a crewmember or other authorized employee of the air carrier implementing exit seating restrictions established in accordance with this section, or
- (2) The only seat that will physically accommodate the person's handicap is an exit seat.

(i) Each air carrier shall submit their procedures for DGAC approval.

135.123 Alcoholic beverages

(a) No person may drink any alcoholic beverage aboard an aircraft unless the air carrier operating the aircraft has served that beverage to him.



(a) No person may drink any alcoholic beverage aboard an aircraft unless the air carrier operating the aircraft has served that beverage to him.

(b) No air carrier may serve any alcoholic beverage to any person aboard any of its aircraft who;

- (1) Appears to be intoxicated;
- (2) Is escorting a person or being escorted for security purposes or
- (3) Is authorized to carry and has a deadly or dangerous weapon accessible to him while aboard the aircraft.

(c) No air carrier may allow any person to board any of its aircraft if that person appears to be intoxicated.

(d) Each air carrier shall, within five days after the incident, report to the Director the refusal of any person to comply with Paragraph (a) of this section, or of any disturbance caused by a person who appears to be intoxicated aboard any of its aircraft.

135.125 Oxygen for medical use by passengers.

(a) An air carrier may allow a passenger to carry and operate equipment for the storage, generation, or dispensing of oxygen when the following conditions are met:

(1) The equipment is;

- (i) Furnished by the air carrier;
- (ii) Of an approved type or is in conformity with the manufacturing, packaging, marking, labeling, and maintenance requirements of the CASRs.
- (iii) Free of flammable contaminants on all exterior surfaces;
- (iv) Capable of providing a minimum mass flow of oxygen to the user of four liters per minute;
- (v) Constructed so that all valves, fittings, and gauges are protected from damage; and
- (vi) Appropriately secured.

(2) When the oxygen is stored in the form of a liquid, the equipment has been under the air carrier's approved maintenance program since its purchase new or since the storage container was last purged.

(3) When the oxygen is stored in the form of a compressed gas;

- (i) The equipment has been under the air carrier's approved maintenance program since its purchase new or since the last hydrostatic test of the storage cylinder; and
- (ii) The pressure in any oxygen cylinder does not exceed the rated cylinder pressure.

(4) Each person using the equipment has a medical need to use it evidenced by a written statement to be kept in that person's possession, signed by a licensed physician which specifies the maximum quantity of oxygen needed each hour and the maximum flow rate needed for the pressure altitude corresponding to the pressure in the cabin of the aeroplane under normal operating conditions. This paragraph does not apply to the carriage of oxygen in an aeroplane in which the only passengers carried are persons who may have a medical need for oxygen

during flight, no more than one relative or other interested person for each of those persons, and medical attendants.

(5) When a physician's statement is required by Paragraph (a)(4) of this section, the total quantity of oxygen carried is equal to the maximum quantity of oxygen needed each hour, as specified in the physician's statement, multiplied by the number of hours used to compute the amount of aeroplane fuel required by this part.

(6) The pilot in command is advised when the equipment is on board, and when it is intended to be used.

(7) The equipment is stowed, and each person using the equipment is seated, so as not to restrict access to or use of any required emergency or regular exit or of the aisle in the passenger compartment.

(b) No person may, and no air carrier may allow any person to, smoke within 10 feet of oxygen storage and dispensing equipment carried in accordance with Paragraph (a) of this section.

(c) No air carrier may allow any person to connect or disconnect oxygen-dispensing equipment, to or from a gaseous oxygen cylinder while any passenger is aboard the aeroplane.

(d) The requirements of this section do not apply to the carriage of supplemental or first aid oxygen and related equipment required by the CASRs.

135.127 Locking the Cockpit Door

(a) Except as provided in Paragraph (b) of this section, a pilot in command of an aircraft that is equipped with a lockable flight crew compartment door, shall ensure that such door is closed and locked prior to the commencement of boarding of any passengers, until all passengers have disembarked at the termination of the flight.

(b) The provisions of Paragraph (a) of this section do not apply;

(1) During takeoff and landing if the crew compartment door is the means of access to a required passenger emergency exit or a floor-level exit; or

(2) At any time that it is necessary to provide access to the flight crew or passenger compartment, to a crewmember in the performance of his duties or for a person authorized admission to the flight crew compartment under Section 135.547.

(3) When a jumpseat is being used by persons authorized under Section 135.547 in aeroplanes in which closing and locking the flight crew compartment door is impossible while the jumpseat is in use.

(4) The aircraft is being operated in accordance with Section 135.101(c) .

135.129 Emergency and emergency evacuation duties.

Each air carrier shall, for each type and model of aeroplane, assigned to each category of required crewmember as appropriate, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation. The air carrier shall show those functions are realistic, can be practically accomplished, and will meet any reasonably anticipated emergency including the possible incapacitation of individual crewmembers or

their inability to reach the passenger cabin because of shifting cargo in combination cargo/passenger aeroplanes.

135.130 Demonstration of Emergency Evacuation Procedures

(a) Each air carrier authorized to operate a turbojet aeroplane or any land aeroplane that has a passenger seating configuration of 10 or more, and where overwater operations are to be conducted, must demonstrate;

(1) a simulated ditching conducted in accordance with Paragraph (b) that it has the ability to efficiently carry out its ditching procedures, and

(2) that all required equipment relating to the ditching procedure can be swiftly and efficiently deployed.

(b) The ditching demonstration must assume that daylight hours exist outside the aeroplane, and that all required crewmembers are available for the demonstration.

(1) If the air carrier's manual requires the use of passengers to assist in the launching of liferafts, the needed passengers must be aboard the aeroplane and participate in the demonstration according to the manual.

(2) A stand must be placed at each emergency exit and wing, with the top of the platform at a height simulating the water level of the aeroplane following a ditching.

(3) After the ditching signal has been received, each evacuee must don a life vest according to the air carrier's manual.

(4) Each liferaft must be launched and inflated, according to the air carrier's manual, and all other required emergency equipment must be placed in rafts.

(5) Each evacuee must enter a liferaft, and the crewmembers assigned to each liferaft must indicate the location of emergency equipment aboard the raft and describe its use.

(6) Either the aeroplane, a mockup of the aeroplane or a floating device simulating a passenger compartment must be used.

(i) If a mockup of the aeroplane is used, it must be a life-size mockup of the interior and representative of the aeroplane currently used by or proposed to be used by the air carrier, and must contain adequate seats for use of the evacuees. Operation of the emergency exits and the doors must closely simulate those on the aeroplane. Sufficient wing area must be installed outside the over-the-wing exits to demonstrate the evacuation.

(ii) If a floating device simulating a passenger compartment is used, it must be representative, to the extent possible, of the passenger compartment of the aeroplane used in operations. Operation of the emergency exits and the doors must closely simulate operation on that aeroplane. Sufficient wing area must be installed outside the over-the-wing exits to demonstrate the evacuation. The device must be equipped with the same survival equipment as is installed on the aeroplane, to accommodate all persons participating in the demonstration.

(c) For a type and model aeroplane for which the simulated ditching specified in Paragraph (a) is conducted the requirements of Paragraphs (b)(2), (b)(4), and (b)(5) are complied with if each life raft is removed from stowage, one life raft is launched and inflated (or one

slide life raft is inflated) and crewmembers assigned to the inflated life raft display and describe the use of each item of required emergency equipment. The life raft or slide life raft to be inflated will be selected by the Director.

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SUBPART G - MANUAL REQUIREMENTS

135.131 Applicability

This subpart prescribes requirements for preparing and maintaining manuals by all air carriers operating under this part.

135.133 Preparation, approval and authority

(a) An air carrier shall establish and maintain a company operations manual that meets the requirements of this subpart.

(b) An air carrier shall submit to the Director for approval, its company operations manual and any amendments to that manual.

(c) Where there is a change in any aspect of the air carrier's operation, or where the company operations manual no longer meets the requirements of Part 135 of the CASR, the air carrier shall amend its company operations manual.

(d) The Director shall, where the provisions of this subpart have been met, approve those parts of the company operations manual, and any amendments to those parts, that relate to the information required by Part 135 of the CASR.

(e) In meeting the requirements of this subpart, an air carrier may produce its company operations manual in the form of other manuals provided that;

(1) the company operations manual identifies such other manual/s by an official title, and states that the manual/s form part of the company's official policy, giving cross-references as appropriate,

(2) the company operations manual publishes as appendices, copies of the index or table of contents of such other manuals,

(3) any manual produced under this paragraph meet all the publishing, controlling and amendment requirements of a company operations manual,

(4) distribution of such manuals shall be in accordance with this subpart, and

(5) the Director approves each manual in accordance with paragraph (d) of this section.

(f) The rules and regulations, policies and procedures contained in a company operations manual shall be in accordance with the CASR and other Regulations as appropriate. When approved by the Director, it becomes the company's official policy manual. Each air carrier and each person employed by that air carrier, shall comply with rules, regulations, policies and procedures contained in the approved company operations manual.

135.135 Format of a company operations manual

(a) A company operations manual shall be in a form that ensures;

- (1) all parts of the company operations manual, or other manual produced under subsection (e) of section 135.133, are consistent and compatible in form and content,
- (2) Appropriate indexing and division of the manual/s to enable quick and accurate access to the information,
- (3) the manual can be readily amended,
- (4) the manual contains an amendment control page and a list of effective pages which records all the pages in effect.
- (5) each page contains at least:
 - (i) the legal name of the company and title of the manual,
 - (ii) the page number, or page and section number,
 - (iii) the date of last amendment of that page, and
 - (iv) an amendment bar which identifies only the amended information.

135.137 Contents of a company operations manual

(a) The manual/s required by Section 135.133 must include instructions and information in sufficient detail to enable the personnel concerned to perform their duties and responsibilities with a high degree of safety.

(b) Except as provided in subsection (c) of this section, the information contained in the manual/s required by Section 135.133, shall contain only that information required by the subjects outlined in subsection (d) of this section.

(c) An air carrier may designate one chapter or section of its company operations manual to deal with subjects of a non operational nature provided that:

- (1) it is clearly identified as a section which is not approved by the Director and does not contain any policy or procedure required by regulation, and
- (2) it does not in anyway address, or conflict with any operational section of the manual/s.

(d) The company operations manual shall contain at least the following, as applicable:

- (1) a preamble relating to the use, authority and distribution of the manual, and list of definitions sufficient to define the specific meaning of:
 - (i) all definitions, abbreviations and acronyms used in the manual,
 - (ii) the official titles of all operational managers, except where that precise title is identified in the CASR,
 - (iii) any term used in the manual, which the Director decides requires definition.
- (2) a table of contents,
- (3) amending procedures, amendment record sheet, distribution list and list of effective pages,
- (4) a copy of the air operator certificate and operations specifications,
- (5) a chart of the air carriers management organization,
- (6) the duties, responsibilities and succession of command of all persons approved under this part,
- (7) A description of the operational control system including the following:

- (i) flight authorization and preparation procedures including the principles of co-authority dispatch and conflict resolution,
 - (ii) preparation of the operational flight plan and flight release procedures,
 - (iii) procedures to ensure pilots are advised prior to dispatch, of any aircraft defects that have been deferred by MEL or other authority and maintenance release procedures,
 - (iv) flight watch, flight following and communication requirements and procedures,
 - (v) procedures for the dissemination and acknowledgement of operational information,
 - (vi) fuel and oil requirements,
 - (vii) weight and balance system,
 - (viii) accident or incident reporting and procedures for reporting overdue aircraft,
 - (ix) maintenance discrepancy reporting and completion of flight documentation including forwarding procedures and retention periods, and
 - (x) description of the company's dispatch centre(s), operational support services and equipment.
- (8) sample of all required company forms including operational flight plan/s, weight and balance and load control sheets,
 - (9) use of checklists,
 - (10) weather minima applicable to IFR and VFR at all operational and alternate airports including company approved weather observation procedures,
 - (11) instrument and equipment requirements,
 - (12) instrument approach procedures,
 - (13) procedures for establishing company approved routes in uncontrolled airspace,
 - (14) procedures for management of navigation and communications equipment including listening watch and collision avoidance,
 - (15) procedures for the avoidance or operations in hazardous conditions such as but not limited to icing, thunderstorms, windshear, volcanic ash etc.,
 - (16) aircraft performance limitations, and operational restrictions as applicable'
 - (17) carriage and securing of cargo, including external loads, carry on baggage, commissary, spares or other equipment as applicable,
 - (18) passenger briefing procedures,
 - (19) proper use of the aircraft flight manual, aircraft operating manual, standard operating procedures and minimum equipment list as applicable,
 - (20) critical surface contamination procedures, as applicable, including a detailed description of:
 - (i) How the carrier determines that conditions are such that frost, ice, or snow may reasonably be expected to adhere to the aircraft and that ground deicing/anti-icing operational procedures must be in effect:
 - (ii) Who is responsible for deciding that ground deicing/anti-icing operational procedures must be in effect:
 - (iii) The procedures for implementing ground deicing/anti-icing operational procedures:



- (IV) The specific duties and responsibilities of each operational position or group responsible for getting the aircraft safely airborne while ground deicing/anti-icing operational procedures are in effect.
- (v) The use of holdover times.
- (vi) Aircraft deicing/anti-icing procedures, including inspection and check procedures and responsibilities.
- (vii) Communications procedures.
- (vii) A pre-takeoff contamination check to determine a representative surface as defined in the air carrier's program, is free of frost, ice, or snow.
- (21) procedures for the carriage of dangerous goods,
- (22) fuelling procedures including:
 - (i) contamination precautions,
 - (ii) bonding and grounding requirements,
 - (iii) fuelling with:
 - (A) engines running, and
 - (B) with passengers on board.
- (23) emergency procedures for:
 - (i) passenger preparation for landing/ditching,
 - (ii) short notice and long notice emergency evacuation procedures,
 - (iii) emergency functions of all crew members including succession of command alternate actions in the event of the incapacitation of other crew members,
 - (iv) unlawful interference,
 - (v) reporting of an emergency,
 - (vi) intervention or giving aid during an emergency,
 - (vii) emergency response plan
 - (viii) missing aircraft procedures,
 - (ix) procedures for checking emergency equipment required for flight,
 - (x) safety signals and announcements on board an aircraft,
 - (xi) in flight medical emergency, and
 - (xii) other emergency considerations.
- (24) company safety program,
- (25) minimum crew members required for flight and minimum crew qualifications,
- (26) authority of the pilot in command and succession of command of all operations personnel on the flight deck and in the passenger cabin,
- (27) flight duty time limitations and rest periods including the commencement and termination of air crew duty periods.
- (28) training programs including sample training forms and records,
- (29) use of oxygen,
- (30) passenger and cabin safety procedures including passenger movement on the apron,
- (31) procedures governing the use of specialized equipment,
- (32) policy on the use of the flight deck observer seats by authorized persons including DGAC personnel,

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- (33) operational weather minima, including alternate means of establishing prevailing weather conditions at airports where official observations are not available, and
- (34) other information relating to safety or as may be required by the Director.

(e) Where an air carrier is restricted to aerial work, is the owner/operator of a one aircraft air transportation service, or where the Director deems it to be appropriate, he may approve an abbreviated manual. In any case the manual must be in accordance with Subsections (a) and (b) of this section and contain at least the information required in Subsection (d) of this section, paragraphs: (1)-(2)-(3)-(4)-(7,(i),(ii),(vi),(vii), and (viii)-(8)-(10)-(17)-(19)-(22 where applicable)-(29)-(32 where applicable)-(33) and (34). Where the Director considers it necessary in light of the type of service being operated, he may require additional information to be published in the COM.

135.139 Distribution, availability and upkeep of the company operations manual

(a) Subject to subsection (c) of this section, an air carrier shall issue a copy of the appropriate parts of its company operations manual, including any revisions to those parts, to:

- (1) each crew member,
- (2) ground operations personnel including maintenance if applicable, and
- (3) the Director or his representative/s.

(b) Every person who has been issued a copy of a company operations manual, whether whole or in part, shall insert all revisions issued to them in accordance with the revision procedures contained in the manual.

(c) An air carrier may place a copy of its manual in every aircraft in lieu of providing a copy to all crew members if there is a procedure in place to ensure the timely insertion of the revisions to that manual.

(d) An air carrier shall maintain a complete copy of its company operations manual at its main base, and appropriate parts of the manual at each dispatch center.

(e) Each employee who has been issued a company operations manual shall ensure the appropriate parts of the manual are available and reasonably accessible at his work station during the performance of their assigned duties.

135.141 Company maintenance manual

(a) An air carrier shall establish and maintain a company maintenance manual (CMM) that meets the requirements of Section 135.379 of this Part.

(b) An air carrier shall submit to the Director for approval, its company maintenance manual and any amendments to that manual.



(c) Where there is a change in any aspect of the air carrier's operation, or where the company maintenance manual no longer meets the requirements of Part 135 of the CASR, the air carrier shall amend its company maintenance manual.

(d) The Director shall, where the provisions of this Section have been met, approve those parts of the company maintenance manual, and any amendments to those parts, that relate to the information required by Section 135.379 of the CASR.

135.143 Aircraft Operating Manual and Aircraft Flight Manual

(a) An air carrier may establish and maintain an aircraft operating manual for the use and guidance of crew members in the operation of its aircraft. Such manual may be carried in lieu of the aircraft flight manual provided the provisions of subsection (b)(2) of this section is complied with. Every aircraft operating manual required by this Section shall be approved in accordance with Subsection 135.133(b).

(b) For each of its aircraft that is required to be operated with two or more pilots, an aircraft operating manual shall contain:

- (1) the aircraft manufactures recommended operating procedures, and
- (2) where the air carrier elects not to carry the approved aircraft flight manual on board the aircraft, the aircraft limitations and performance data contained in the aircraft flight manual must be contained in the Aircraft Operating Manual (AOM). Such information must be clearly identified as aircraft flight manual data.

(c) An air carrier that has elected to establish an aircraft operating manual shall ensure that a copy of the manual is carried on board each aircraft of that type.

(d) Where an air carrier makes any change to the pages or information contained in an aircraft operating manual, each new page containing company changes must be identified as a company page.

(e) Where an air carrier elects to insert company pages into its aircraft operating manual, it shall provide a copy of the manual to DGAC.

135.145 Standard Operating Procedures

(a) Every air carrier shall establish standard operating procedures that ensure the aircraft is operated in accordance with the approved aircraft flight manual and the manufactures recommended procedures. Where the aircraft is of a type that is operated by two or more flight crew members, the standard operating procedures must ensure proper co-ordination of all crew members including flight attendants.

(b) An air carrier that has established a standard operating procedures manual, shall ensure it is maintained in a current condition and carried on board each aircraft of that type.

(c) Where an air carrier elects to incorporate its standard operating procedures into the aircraft operating manual, it must comply with Subsections (d) and (e) of Section 135.143.

135.147 Rotorcraft/Load Combination Flight Manual

(a) Each air carrier authorized to carry external loads in a helicopter shall publish a Rotorcraft/Load Combination Flight Manual and submit it to the Director for approval. The manual must be prepared in accordance with the rotorcraft flight manual provisions of Subpart G of Part 27 or 29 of the CASRs, whichever is applicable and shall set forth;

- (1) Operating limitations, procedures (normal and emergency), performance, and other information established under Subpart J of this part, except that the limiting height/speed envelope data need not be listed as operating limitations.
- (2) The class of rotor/load combinations for which the airworthiness of the rotorcraft has been demonstrated in accordance with the flight characteristics requirements laid down in Section 135.219 and, in the information section of the Rotorcraft/Load Combination Flight Manual;
- (3) Information on any peculiarities discovered when operating with particular rotorcraft/load combinations;
- (4) Precautionary advice regarding static electricity discharges for Class B, Class C, and Class D rotorcraft/load combinations, and
- (5) Any other information essential for safe operation with external loads.

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SUBPART H - AIRCRAFT REQUIREMENTS

135.151 Applicability

This subpart prescribes aircraft requirements for all air carriers operating under this part.

135.153 Aircraft requirements General

(a) Subject to Subsection (b) of this section, no person shall operate any aircraft under this part, unless there has been issued with respect to, and carried on board that aircraft:

- (1) a certificate of registration as a civil aircraft, issued by Indonesia,
- (2) a valid certificate of airworthiness, or
- (3) a document approved by DGAC for the purpose of certifying the airworthiness of that aircraft,
- (4) a current weight and balance document,
- (5) a radio licence authorizing all radio apparatus installed in that aircraft, and
- (6) any other document deemed appropriate by the Director, which gives evidence as to the legal or operational status of that aircraft.

(b) The Director may approve an aircraft to be operated under this part without meeting certain requirements of Subsection (a) of this section provided that:

- (1) the aircraft is operated in accordance with a Minimum Equipment List approved for that aircraft,
- (2) the aircraft is the subject of a certificate of airworthiness or equivalent document issued by a contracting state, or
- (3) the aircraft is registered as a civil aircraft in a contracting state.

(c) In determining the acceptability of an aircraft to be operated pursuant to Subsection (b) of the section, the Director will apply the criteria for leasing or chartering an aircraft laid down in Section 135.41 of this part.

135.155 Aircraft certification and equipment requirements

(a) Subject to Section 135.157 of this part, no air carrier shall operate an aircraft unless it meets the applicable performance and equipment requirements contained in this part.

(b) No person shall operate any aircraft under this part that was type certificated by the country of manufacture after July 1993 unless the aircraft meets the requirements of Parts 23,25,27 or 29 of the CASRs.

135.157 Requirements for a Minimum Equipment List (MEL)

(a) All certificate holder operate under this part must have an approved Minimum Equipment List for each type of airplane operated, and:

- (1) An approved MEL must be onboard on airplane
- (2) An operations specification authorizing operations in accordance with an approved Minimum Equipment List has been issued by DGAC.



(3) The approved Minimum Equipment List must:

(i) Be prepared subject to the limitations specified in Sub-section (b) of this section.

(ii) Provide for the operation of the aircraft with certain instruments and equipment in an inoperable condition.

(4) Records identifying the inoperable instruments and equipment and the information required by Paragraph (a)(3)(ii) of this section must be available to the pilot.

(5) The aircraft is released and operated in accordance with all applicable maintenance and operational conditions and limitations contained in the Minimum Equipment List.

(b) The following instruments and equipment may not be included in the Minimum Equipment List:

(1) Instruments and equipment that are either specifically or otherwise required by the airworthiness requirements under which the aircraft is type certificated and which are essential for safe operations under all operating conditions.

(2) Instruments and equipment required by an airworthiness directive to be in operable condition unless the airworthiness directive provides otherwise.

(3) Instruments and equipment required for specific operations by this part.

(c) Notwithstanding Paragraphs (b)(1) and (b)(3) of this section, an aircraft with inoperable instruments or equipment may be operated under a special flight permit issued pursuant to Sections 21.197 and 21.199 of CASR Part 21.

135.159 Master Minimum Equipment List (MMEL)

(a) Where a Master Minimum Equipment List has been established for an aircraft type and issued pursuant to the applicable rules of the country of manufacture:

(1) the Director shall accept such MMEL if the country of manufacture is a contracting state, or

(2) the Director may approve such MMEL if the country of manufacture is not a contracting state.

(b) Where the country of manufacture has established a Supplemental Document to a MMEL which has been approved or excepted in accordance with sub-section (a) of this section, such supplemental document shall be considered to form part of that Master Minimum Equipment List.

135.161 Aircraft route limitations

(a) No air carrier may operate an aircraft over a route that contains a point further than one hour flying time, in still air at normal cruising speed with one engine inoperative, from an adequate airport, or in the case of a helicopter, an adequate landing area, unless:

(1) authorized to do so in the air carrier's operations specification,

(2) the aircraft is powered by three or more turbine engines,



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SUBPART I - AIRPLANE PERFORMANCE OPERATING LIMITATIONS

135.171 Applicability.

This subpart prescribes aircraft performance operating limitations for air carriers operating under this part.

135.173 General.

Any determinations made for the purpose of complying with this sub-part shall be based on approved performance data set out in the aircraft flight manual.

135.175 Take-off weight limitations

(a) No person shall conduct a take-off in an aircraft if the weight of that aircraft exceeds the maximum take-off weight specified in the aircraft flight manual (AFM) for the pressure altitude and ambient temperature at the aerodrome where the take-off is to be made, or

(1) exceeds the maximum allowable landing weight for that aircraft specified in the AFM taking into consideration, the flight planned fuel burn to the planned destination or alternate airport, the pressure altitude and ambient temperature at those airports.

(2) would be unable to comply as applicable, with Section 135.177 and 179 of this subpart.

(b) In the determination of the maximum take-off weight referred to in sub-section (a) of this section,

(1) for a small multi-engine aircraft,

(i) subject to sub-section (c) of this section, the required accelerate-stop distance shall not exceed the accelerate-stop distance available (ASDA) inclusive of the length of any stopway,

(ii) the all engines operating take-off distance shall not exceed the take-off distance available (TODA) inclusive of any clearway up to the addition of one-half the length of the runway, and

(iii) the take-off run shall not exceed the take-off run distance available. (TORA).

(2) for a large aircraft, subject to sub-section (c),

(i) the required accelerate-stop distance shall not exceed the accelerate-stop distance available, (ASDA) inclusive of the length of any stopway.

(ii) the required take-off run shall not exceed the take-off run distance available, (TORA) and

(iii) the required take-off distance shall not exceed the take-off distance available. (TODA) inclusive of any clearway up to the addition of one-half the length of the runway.

(3) for a helicopter,

(i) the maximum take off weight specified in the aircraft flight manual taking into account the ability to jettison the load.

(c) For the purposes of paragraphs (b), (1)&(2) of this section, the following factors shall be taken into account:

- (1) the pressure altitude at the aerodrome,
- (2) ambient temperature,
- (3) runway surface type and surface conditions,
- (4) runway slope in the direction of take-off, and
- (5) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

135.177 Net take-off path

(a) No person shall conduct a take-off in a large aeroplane if the weight of that aeroplane is greater than the weight specified in the aircraft flight manual as allowing a net take-off path that clears all obstacles by at least,

- (1) 35 feet vertically, or
- (2) 200 feet horizontally within the aerodrome boundaries: and 300 feet horizontally outside the aerodrome boundaries.

(b) For the purposes of Subsection (a) of this section, corrections for the following factors shall be made.

- (1) the runway to be used,
- (2) the pressure altitude at the aerodrome,
- (3) ambient temperature,
- (4) runway slope in the direction of take-off, and not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component.

(c) Calculations shall be based upon a flight profile where:

- (1) the wings remain level until the aeroplane reaches 50 feet above ground level,
- (2) thereafter, bank angle is limited to 15 degrees until reaching 400 feet above ground level
- (3) thereafter, bank angles shall be based upon normal turning rates subject to aircraft speed and configuration limitations.

(d) Where obstacle height and position relative to a take-off path can not be determined by reference to an approved chart or plan drawing, a take-off may be conducted provided the criteria and procedures laid down in the ICAO Annex 6, Attachment C, are complied with.

135.179 Enroute limitations with one engine inoperative

(a) No person shall operate a multi-engine aircraft with passengers on board unless in the event of the loss of any engine, the aircraft is capable of maintaining the following altitudes:

- (1) when the aircraft is being operated under IFR along airways, or air routes, or in IMC flight, the minimum enroute altitude for that airway, or air route as applicable,
- (2) when operating in VFR flight, at least 500 feet above the surface.

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135.181 Runway requirements for destination and alternate airports

(a) Subject to subsection (c) of this section, no person shall dispatch, or conduct a take-off in any turbo-jet-powered, or any large aeroplane, unless the weight of the aeroplane on landing at the destination or alternate aerodrome will allow a full stop landing:

- (1) in the case of turbo-jet-powered aeroplane, within 60% of the landing distance available, or
- (2) in the case of a propeller-driven aeroplane, within 70% of the landing distance available.

(b) In determining the maximum allowable weight required by Subsection (a) of this section, the following considerations shall be taken into account.

- (1) the pressure altitude at the destination and alternate aerodromes,
- (2) not more than 50% of the reported headwind or not less than 150% of the reported tail wind component: and
- (3) the suitability of the actual runways to be used, based upon expected wind conditions, ground handling characteristics of the aeroplane and any other condition which might adversely effect the approach and landing of the aeroplane.

(c) Where conditions at the destination airport at the time of take-off would not permit a take-off pursuant to Subsection (a) of this section, the aircraft may be dispatched and a take-off conducted provided:

- (1) at the time of take-off, the alternate aerodrome specified in the operational flight plan would allow compliance with Subsections (a) and (b) of this section, and
- (2) any fuel burn which may be required to reduce the aeroplane landing weight at the destination, would not preclude the ability for the aeroplane to proceed to the planned alternate with all required reserve and contingency fuels.

135.183 Landing distance on wet runways

(a) Except where the aircraft flight manual provides specific information on landing distance on wet runways, no person shall dispatch or conduct a take-off of an aeroplane where the destination airport, based upon reported and forecast weather conditions is likely to be wet, unless,

- (1) the landing distance available is not less than 115% of the landing distance required by Section 135.181 of this subpart, or
- (2) the landing distance requirements are predicated on the AFM wet runways data.



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SUBPART J - CARRIAGE OF CARGO

135.211 Applicability

This subpart prescribes the rules for the carriage of cargo for all air carriers operating under this part.

135.213 Special Airworthiness Requirements

Aircraft utilized under this part for the carriage of cargo, must meet the certification requirements (or the equivalent) of CASR 21,23, 25, 27 or 29 as appropriate.

135.215 Reserved

135.217 Carriage of Cargo in Cargo Compartments

(a) No air carrier shall operate a commuter or transport category aircraft in any cargo or cargo/passenger combination unless;

- (1) the aircraft has been released for flight in accordance with CASR Part 43 for the configuration the aircraft is being operated in,
- (2) the aircraft is operated in accordance with the operational data approved for that configuration,
- (3) the cargo is loaded and secured as applicable, in accordance with CASR Part 91 section 91.525 and
- (4) the aircraft is otherwise operated in accordance with this Part.

(b) In the case of a single engine aircraft, the pilot may remove the seats for the purpose of operating the aircraft in an all cargo, or cargo/passenger configuration provided;

- (1) the provisions of CASR Part 91, section 91.525 are complied with as applicable, and
- (2) a revised weight and balance form is approved for each specific configuration the aircraft is to be operated in.

135.219 Helicopter Carrying External Cargo Loads

Each air carrier authorized in its operations specifications to carry external loads in a helicopter shall perform such operations in accordance with the rules laid down in Subpart C of this Part.

135.221 Reserved

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART K - AIRCRAFT INSTRUMENTS AND EQUIPMENT

135.301 Applicability

This subpart prescribes instrument and equipment requirements for all air carriers operating under this Part, except where noted.

135.303 Instruments and Equipment

(a) Instruments and equipment required by this Subpart must be approved and installed in accordance with the airworthiness requirements applicable to them.

(b) Each airspeed indicator must be calibrated in knots or miles per hour as determined by the Aeroplane Flight Manual (AFM), and each airspeed limitation and item of related information in the AFM and pertinent placards must be expressed in knots or miles per hour as applicable.

(c) Except as in accordance with an approved MEL, no person may takeoff any aeroplane unless the following instruments and equipment are installed and in operable condition:

- (1) instruments and equipment required to comply with airworthiness requirements under which the aeroplane is type certificated, and
- (2) instruments and equipment specified in this Subpart as applicable to the type of aircraft and operation being flown.

(d) Any instrument or equipment required by this Subpart which has been given a compliance date, shall be installed on or before the dates indicated by the respective sections.

135.305 Flight and Navigation Equipment for IFR

(a) No person may operate an aeroplane under the instrument flight rules unless it is equipped with the following flight and navigational instruments and equipment:

- (1) 2 Independent airspeed indicating systems with heated pitot tubes or equivalent means for preventing malfunctioning due to icing,
- (2) 2 independent sensitive altimeter systems,
- (3) a sweep-second hand clock (or approved equivalent),
- (4) a free air temperature indicator,
- (5) a gyroscopic bank and pitch indicator (artificial horizon),
- (6) a gyroscopic rate of turn indicator combined with an integral slip/skid indicator (turn and bank indicator) except that only a slip/skid indicator is required when a third attitude instrument system usable through 360° of pitch and roll is installed in accordance with paragraph (10) of this section,
- (7) a gyroscopic direction indicator (directional gyro or equivalent),
- (8) a magnetic compass,
- (9) a vertical speed indicator (rate of climb indicator),
- (10) on each turbo jet and turbo propeller powered aeroplane two gyroscopic bank-and-pitch indicators (artificial horizons) for use at the pilot stations. In addition,

for turbo jet powered airplanes a third such instrument that complies with the provisions of Paragraph (11) of this section, and
(11) when required by Paragraph (10) of this section, a third gyroscopic bank-and-pitch indicator (artificial horizon) that:

- (i) is powered from a source independent of the electrical generating system,
- (ii) continues reliable operation for a minimum of 30 minutes after total failure of the electrical generating system,
- (iii) operates independently of any other attitude indicating system:
- (iv) is operative without selection after total failure of the electrical generating system,
- (v) is located on the instrument panel in a position acceptable to the Director that will make it plainly visible to and usable by each pilot at his or her station, and
- (vi) is appropriately lighted during all phases of operation.

135.307 Instruments and Equipment for Night Operations

(a) No person shall operate an aeroplane at night unless, in addition to the instruments and equipment required by this Subpart, it is equipped with the following approved illumination systems:

- (1) position lights,
- (2) not less than one anti-collision light,
- (3) two landing lights,
- (4) instrument lights providing sufficient illumination to each required instrument, switch, or similar control device, and
- (5) a means of cockpit illumination adequate to facilitate reading any document, checklist, map or approach plate, without creating a reflective glare which could impede the pilot's night vision within or outside the aircraft,
- (6) a flashlight, and
- (7) any other illumination device required by the AFM or type certificate, to facilitate the operation of any aircraft normal or emergency system, during official hours of darkness.

135.309 Radio Equipment for IFR Operations

(a) Except as provided by Section 135.321 of this subpart, no person may operate an aircraft under IFR operations, unless it has at least the following radio communication and navigational equipment:

- (1) two transmitters,
- (2) two microphones,
- (3) two headsets or one headset and one speaker,
- (4) a marker beacon receiver,
- (5) two independent receivers for navigation, and
- (6) two independent receivers for communications.

(b) The radio equipment required by this section must be appropriate to the facilities upon which the flight is based and capable of transmitting to, and receiving from at least one ground facility, from any place along the planned route.

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(c) For the purpose of Subsections (a)(1) and (2) of this section, a receiver is considered independent if its serviceability does not depend on the functioning of any part of another receiver or associated instrument.

(d) For the purpose of this Section, a navigation receiver shall be taken to mean any navigation instrument or system associated with that receiver. The combination of navigation receivers must be such that the failure of any one system will not render an aircraft incapable of navigation to its designation or a suitable alternate.

135.311 Radio Equipment for VFR Operations

(a) No person shall operate any aircraft under VFR unless it is equipped with communication radio equipment adequate to ensure;

- (1) the pilot in command is capable of maintaining a listening watch appropriate to the aircraft position with respect to classes of airspace,
- (2) the pilot in command is able to communicate with the appropriate air traffic control unit as applicable,
- (3) the pilot in command is able to meet all communication requirements of the air carriers approved flight watch or flight following system, and
- (4) the pilot in command would be able to transmit a distress or urgency message on at least one emergency frequency.

(b) No person shall operate an aircraft unless it is equipped with adequate navigational radio equipment to ensure reception as appropriate, of the navigational facilities upon which any portion of the flight was planned.

135.313 Specialized Navigation Equipment

(a) No air carrier shall operate an aircraft under the instrument flight rules, when its position cannot be reliably fixed for a period of more than 1 hour, unless the aircraft is equipped with a specialized means of navigation. Such specialized equipment must be capable of providing a reliable determination of the aircraft position by each pilot seated at his or her assigned crew station.

(b) No air carrier shall operate an aircraft using Doppler Radar, Inertial Navigation Systems or any other specialized means of navigation unless such systems have been approved in accordance with Procedures acceptable to the DGAC. Such procedures must include dispatch and in-flight operational policies.

(c) Notwithstanding Subsection (a) of this section, the Director may require special navigation equipment to be utilized on flights of 1 hour or less where he believes specialized equipment is required for safety reasons. In making this determination, the Director considers:

- (1) The speed of the aeroplane;
- (2) Normal weather conditions enroute;
- (3) Extent of air traffic control;
- (4) Traffic congestion;
- (5) Area of navigational radio coverage at destination;

- (6) Fuel requirements;
- (7) Fuel available for return to point of departure or alternates;
- (8) Predication of flight upon operation beyond the point of no return; and
- (9) Any other factors he determines are relevant in the interest of safety.

(d) Operations where special navigation equipment is required are specified in the operations specifications of the operator.

135.315 Weather Radar and Thunderstorm Detection Equipment

(a) After March 31, 2003 no air carrier may operate a turbojet aeroplane or any aeroplane in passenger carrying operations unless;

- (1) the aircraft is equipped with an approved serviceable weather radar or thunderstorm detection equipment,
- (2) the aircraft is operating under day VFR, and in the case of a turbo jet aeroplane, there are no reported or forecasted thunderstorms or hazardous weather expected along the planned route including arrival airports.

(b) No person shall commence a flight under the instrument flight rules or night VFR when current weather reports or forecasts indicate that thunderstorms or other detectable hazardous weather conditions may be expected along the route unless;

- (1) the radar or detection equipment is in satisfactory operating condition, and
- (2) should the airborne weather radar or thunderstorm detection equipment becomes inoperative enroute, the aircraft must be operated in accordance with the procedures approved for hazardous weather avoidance.

135.317 Engine instruments and Indicators

(a) Except as may be required by the Director, no person may operate any piston powered, transport category aeroplane under this part without the following engine instruments and indicators;

- (1) A carburetor air temperature indicator for each engine,
- (2) A cylinder head temperature indicator for each air cooled engine,
- (3) A fuel pressure indicator for each engine,
- (4) A fuel flowmeter or fuel mixture indicator for each engine not equipped with an automatic altitude mixture control,
- (5) A means for indicating fuel quantity in each fuel tank to be used,
- (6) A manifold pressure indicator for each engine,
- (7) An oil pressure indicator for each engine,
- (8) An oil quantity indicator for each oil tank when a transfer or separate oil reserve supply is used,
- (9) An oil in temperature indicator for each engine,
- (10) A tachometer for each engine,
- (11) An independent fuel pressure warning device for each engine or a master warning device for all engines with a means for isolating the individual warning circuits from the master warning device,
- (12) A device for each reversible propeller, to indicate to the pilot when the propeller is in reverse pitch, that complies with the following:

- (i) The device may be actuated at any point in the reversing cycle between the normal low pitch stop position and full reverse pitch, but it may not give an indication at or above the normal low pitch stop position, and
- (ii) The source of indication must be actuated by the propeller blade angle or be directly responsive to it.

135.319 Ground Proximity Warning System (GPWS)

(a) No person may operate any turbine-powered aeroplane which is certified in the transport category, or has a certified passenger seating capacity of 10 or more after March 31, 2003 unless it is equipped with a ground proximity warning system (GPWS).

(b) The ground proximity warning system required by this section shall provide warnings of at least the following conditions;

- (1) excessive sink rate,
- (2) excessive terrain closure rate,
- (3) excessive altitude loss after take-off or go-around,
- (4) unsafe terrain clearance while not in landing configuration,
 - (i) gear not locked down,
 - (ii) flaps not in landing position,
- (5) excessive descent below the instrument glide path, and
- (6) windshear.

(c) For the ground proximity warning system required by this section, the Aeroplane Flight Manual shall contain;

- (1) appropriate procedures for,
 - (i) the use of the equipment;
 - (ii) proper flight crew action with respect to the equipment;
 - (iii) deactivation for planned abnormal and emergency conditions;
 - (iv) inhibition of Mode 4 warnings based on flaps being in other than the landing configuration if the system incorporates a Mode 4 flap warning inhibition control; and
- (v) an outline of all input sources that must be operating.

(d) No person may deactivate a ground proximity warning system required by this section except in accordance with the procedures contained in the Aeroplane Flight Manual and any approved procedure.

(e) Whenever a ground proximity warning system required by this section is deactivated, an entry shall be made in the aeroplane maintenance record that includes the date and time of deactivation.

135.321 Miscellaneous Equipment and Spares

Except as authorized by an approved MEL, no person may conduct a take-off from an originating point unless the following equipment is installed and serviceable in the aeroplane;

(a) where protective fuses and changeable light bulbs are installed on an aeroplane, not less than;

(1) two spare fuses for each type and rating used and accessible from the cockpit, and

(2) two spare light bulbs of a type and rating used by the essential instruments or gauges located within the cockpit including at least one spare flood light bulb.

(3) Sufficient spare fuses and light bulbs to ensure any flight attendant station is adequately lighted to enable such station or control panel to be readily useable.

(b) in the case of a large aircraft, a windshield wiper or equivalent for each pilot station.

(c) in the case of an aircraft certified under CASR Part 25, a power supply and distribution system that meets the requirements of Sections 25.1309, 25.1331, 25.1351(a) and (b)(1) through (4), 25.1353, 25.1355, and 25.1431(b) or that is able to produce and distribute the load for the required instruments and equipment, with use of an external power supply if any one power source or component of the power distribution system fails. The use of common elements in the system may be approved if the Director finds that they are designed to be reasonably protected against malfunctioning. Engine driven sources of energy, when used, must be on separate engines.

(d) a means for indicating the adequacy of the power being supplied to required flight instruments.

(e) where the aircraft is operated at night or IFR, two independent static pressure systems, vented to the outside atmospheric pressure so that they will be least affected by airflow variation or moisture or other foreign matter, and installed so as to be airtight except for the vent. When a means is provided for transferring an instrument from its primary operating system to an alternate system, the means must include a positive positioning control and must be marked to indicate clearly which system is being used.

(f) for large aircraft, a door between the passenger and pilot compartments, with a locking means to prevent passengers from opening it without the pilot's permission.

(g) a key for each door that separates a passenger compartment from another compartment that has emergency exit provisions. The key must be readily available for each crewmember.

(h) a placard on each door that is the means of access to a required passenger emergency exit, to indicate that it must be open during takeoff and landing.

(i) a means for the crew, in an emergency to unlock each door that leads to a compartment that is normally accessible to passengers and that can be locked by passengers.

135.323 Equipment for operations in icing conditions

(a) Except for aircraft certified under CASR Part 25 or an equivalent airworthiness standard relating to ice protection, no person shall operate an aeroplane into known, forecast, or actual icing conditions unless;

- (1) the aeroplane is certified for flight into known icing conditions, and
- (2) is equipped with means for the prevention or removal of ice on the windshields, wings, empennage, propellers, and other parts of the aeroplane where ice formation will adversely affect the safety of the aeroplane,

(b) No person may operate an aeroplane into known, forecast, or actual icing conditions at night unless means are provided for illuminating or otherwise determining the formation of ice on the parts of the wings that are critical from the standpoint of ice accumulation. Any illuminating that is used must be of a type that will not cause glare or reflection that would handicap crewmembers in the performance of their duties.

(c) No person may release a helicopter, continue to operate a helicopter en route, or land a helicopter, if in the opinion of the pilot in command or the operator, icing condition are expected or met that might adversely affect the safety of flight.

135.325 Pitot Heat Indication Systems

No person may operate a turbojet aeroplane, or after December 31, 2000, any aeroplane that has a passenger seating configuration of 20 or more seats unless the aeroplane is also equipped with an operable pitot heat indication system that complies with Section 25.1326 of the CASRs

135.327 Cockpit Voice Recorders

(a) After March 31, 2003 no air carrier may operate a turbojet, or turbine powered aircraft having a passenger seating configuration of nine or more and for which two pilots are required by the certification or operating rules unless;

- (1) there is installed in that aircraft, an approved cockpit voice recorder, and
- (2) is continuously operable from a time no later than, the start of the first engine, until the shut down of the last engine at the end of the flight.

(b) The cockpit voice recorder required by Paragraph (a) of this section must meet the following application standards;

- (1) be installed in compliance with CASR 23.1457, 25.1457, 27.1457 or 29.1457 as appropriate, and
- (2) each recorder container must;
 - (i) be either bright orange or bright yellow;
 - (ii) have reflective tape affixed to the external surface to facilitate its location under water.

(c) In complying with this section, an approved cockpit voice recorder having an erasure feature may be used, so that at any time during the operation of the recorder, information recorded more than 30 minutes earlier may be erased or otherwise obliterated.

(d) For those aircraft equipped to record the uninterrupted audio signals received by a boom or a mask microphone, the flight crewmembers are required to use the boom microphone below 18,000 feet mean sea level. No person may operate a large turbine engine powered on which a cockpit voice recorder has been installed after December 31, 2001 unless it is equipped to record the uninterrupted audio signal received by a boom or mask microphone in accordance with Section 25.1457(c)(5) of the CASRs.

(e) In the event of an accident or occurrence requiring immediate notification of the DGAC, which results in the termination of the flight, the air carrier shall keep the recorded information for at least 60 days or, if requested by the Director, for a longer period. Information obtained from the record is used to assist in determining the cause of accidents or occurrences in connection with investigations under the CASRs

135.329 Flight Data Recorder

(a) Unless otherwise authorized by the Director, after March 31, 2003 no person may operate a any transport category, turbine powered aeroplane having a passenger seating configuration of 10 or more seats, unless it is equipped with one or more approved flight recorders. Flight data recorders must meet the standards laid down in ANNEX 6 to the ICAO, Operation of Aircraft International Standards and Recommended Practices.

135.331 Public Address System

(a) No person may operate an aircraft with a seating capacity of more than 19 passengers unless it is equipped with a public address system which;

(1) is capable of operation independent of the crewmember interphone system except for handsets, headsets, microphones, selector switches, and signalling devices,

(2) is approved in accordance with Section 21.305 of the CASRs;

(3) is accessible for immediate use from each of two flight crewmember stations in the pilot compartment,

(4) is audible at all passenger seats, lavatories, and flight attendant seats and work stations; and

(5) for transport category airplanes manufactured on or after December 1996, meets the requirements of Section 25.1423 of the CASRs.

(b) Each aircraft with a cabin certified for more than 19 passenger seats must have available at each required floor level emergency exit, a public address system microphone which;

(1) is readily accessible to each flight attendant while seated in any flight attendant seat adjacent to such exit,

(2) is capable of operation within 10 seconds by a flight attendant at each required flight attendant station required by this Subsection, and in the passenger compartment from which its use is accessible;

135.333 Crewmember Interphone System

(a) No person may operate an aircraft with a seating capacity of more than 19 passengers unless the aeroplane is equipped with a crewmember interphone system that;

- (1) is capable of operation independent of the public address system except for handsets, headsets, microphones, selector switches, and signaling devices; and
- (2) meets the requirements of Paragraph (b) of this section.

(b) The crewmember interphone system required by Paragraph (a) of this section must be approved in accordance with Section 21.305 of the CASRs and meet the following requirements;

- (1) it must provide a means of two-way communication between the pilot compartment, and
 - (i) each passenger compartment; and
 - (ii) each galley located on other than the main passenger deck level.
- (2) it must be accessible for immediate use from each of two flight crewmember stations in the pilot compartment;
- (3) it must be accessible for use from at least one normal flight attendant station in each passenger compartment;
- (4) it must be capable of operation within 10 seconds by a flight attendant at those stations in each passenger compartment from which its use is accessible; and
- (5) for large turbojet powered airplanes:
 - (i) it must be accessible for use at enough flight attendant stations so that all floor-level emergency exits (or entryways to those exits in the case of exits located within galleys) in each passenger compartment are observable from one or more of those stations so equipped;
 - (ii) it must have an alerting system incorporating aural or visual signals for use by flight crewmembers to alert flight attendants and for use by flight attendants to alert flight crewmembers;
 - (iii) the alerting system required by Paragraph (b)(5)(ii) of this section must have a means for the recipient of a call to determine whether it is a normal call or an emergency call; and
 - (iv) when the aeroplane is on the ground, it must provide a means of two-way communication between ground personnel and either of at least two flight crewmembers in the pilot compartment. The interphone system station for use by ground personnel must be so located that personnel using the system may avoid visible detection from within the aeroplane.

135.335 Supplemental Oxygen for Piston Powered, Unpressurized A/C

(a) General. No person may operate an aeroplane unless supplemental oxygen is furnished and used as set forth in Paragraphs (b) and (c) of this section. The amount of supplemental oxygen required for a particular operation is determined on the basis of flight altitudes and flight duration, consistent with the operational procedures established for each operation and route.

(b) Crewmembers.

- (1) No person may act as a crewmember of an aircraft operated at cabin pressure altitudes between 10,000 and 12,000 feet ASL inclusive, for more than 30 minutes duration unless supplemental oxygen is provided for and used by such crewmember.

(2) Oxygen must be provided and used by each crewmember assigned to duty onboard an aircraft during flight time where the cabin pressure altitudes are above 12,000 feet ASL.

(3) When a flight crewmember is required to use oxygen, he must use it continuously, except when necessary to remove the oxygen mask or other dispenser in connection with his regular duties or physiological needs.

(4) For the purposes of this part, standby crewmembers who have been scheduled for duty onboard that aircraft at any point during the flight time shall comply with this Subsection.

(c) **Passengers.** Each air carrier shall provide a supply of oxygen, approved for passenger safety, in accordance with the following:

(1) For flights of more than 30 minutes duration at cabin pressure altitudes above 8,000 feet up to and including 14,000 feet, enough oxygen for 30 minutes for 10 percent of the passengers.

(2) For flights at cabin pressure altitudes above 14,000 feet up to and including 15,000 feet, enough oxygen for that part of the flight at those altitudes for 30 percent of the passengers.

(3) For flights at cabin pressure altitudes above 15,000 feet, enough oxygen for each passenger carried during the entire flight at those altitudes.

135.337 Supplemental Oxygen for Piston-Powered, Pressurized Aircraft

(a) When operating a reciprocating engine powered aeroplane pressurized cabin, each air carrier shall equip the aeroplane to comply with Paragraphs (b) through (d) of this section in the event of cabin pressurization failure.

(b) **For crewmembers.** When operating at flight altitudes above 10,000 feet, each crewmember must have sufficient oxygen for the entire flight at those altitudes and not less than a two hour supply for each flight crewmember on flight deck duty. The required two hours supply of oxygen shall be determined by assuming a constant rate of descent from the airplane's maximum certified operating altitude, to 10,000 feet in ten minutes and thereafter for 110 minutes at 10,000 feet.

(c) **For passengers.** When operating at flight altitudes above 8,000 feet, the air carrier shall provide oxygen as follows:

(1) When an aeroplane is not flown at a flight altitude above flight level 250, enough oxygen for 30 minutes for 10 percent of the passengers, if at any point along the route to be flown the aeroplane can safely descend to a flight altitude of 14,000 feet or less within four minutes.

(2) If the aeroplane cannot descend to a flight altitude of 14,000 feet or less within four minutes, the following supply of oxygen must be provided:

(i) For that part of the flight that is more than four minutes duration at flight altitudes above 15,000 feet, the supply required by Section 135.339(c)(3).

- (ii) For that part of the flight at flight altitudes above 14,000 feet, up to and including 15,000 feet, the supply required by Section 135.339(c)(2).
 - (iii) For flight at flight altitudes above 8,000 feet up to and including 14,000 feet, enough oxygen for 30 minutes for 10 percent of the passengers.
 - (3) When an aeroplane is flown at a flight altitude above flight level 250, enough oxygen for 30 minutes for 10 percent of the passengers for the entire flight (including emergency descent) above 8,000 feet, up to and including 14,000 feet, and to comply with Section 135.339(c)(2) and (3) for flight above 14,000 feet.
- (d) For the purposes of this section it is assumed that the cabin pressurization failure occurs at a time during flight that is critical from the standpoint of oxygen need and that after the failure the aeroplane will descend, without exceeding its normal operating limitations, to flight altitudes allowing safe flight with respect to terrain clearance.

135.339 Supplemental Oxygen for Turbine Powered, Pressurized A/c

(a) General. When operating a turbine engine powered aeroplane, each air carrier shall equip the aeroplane with supplemental oxygen and dispensing equipment for use as set forth in this section:

- (1) The amount of oxygen provided must be sufficient to comply with Paragraphs (b) and (c) of this section.
 - (2) The amount of supplemental and first aid oxygen required by this section is determined on the basis of cabin altitudes and flight duration, consistent with aircraft operational and route limitations.
 - (3) In making such calculations it must be assumed that loss of cabin pressure will occur at the most critical point during the flight in terms of altitude and position. It must also be assumed the immediately after the loss of pressure, the aeroplane will descend in accordance with the emergency procedures specified in the Aeroplane Flight Manual, to a flight altitude that will allow successful termination of the flight.
- (b) Crewmembers.
 - (1) No person may act as a crewmember of an aircraft operated at cabin pressure altitudes between 10,000 and 12,000 feet ASL inclusive, for more than 30 minutes duration unless supplemental oxygen is provided for and used by such crewmember.
 - (2) Oxygen must be provided and used by each crewmember assigned to duty onboard an aircraft during flight time where the cabin pressure altitudes are above 12,000 feet ASL.
 - (3) When a flight crewmember is required to use oxygen, he must use it continuously, except when necessary to remove the oxygen mask or other dispenser in connection with his regular duties or physiological needs.
 - (4) For the purposes of this Subpart, standby crewmembers who have been scheduled for duty on board that aircraft at any point during the flight time, shall comply with this Subsection.
- (c) Passengers. Each air carrier shall provide a supply of oxygen for passengers in accordance with the following:

- (1) For flights at cabin altitudes between 10,000 feet, and 14,000 feet inclusive, sufficient oxygen for 10 percent of the passengers for that part of the flight flown at such altitudes for more than 30 minutes duration.
- (2) For flights at cabin pressure altitudes above 14,000 feet, up to and including 15,000 feet, enough oxygen for that part of the flight at those altitudes for 30 percent of the passengers.
- (3) For flights at cabin pressure altitudes above 15,000 feet, enough oxygen for each passenger carried during the entire flight at those altitudes.

135.341 Supplemental Oxygen for Emergency Descent and First Aid

(a) General. When operating a turbine engine powered aeroplane with a pressurized cabin, the air carrier shall furnish oxygen and dispensing equipment to comply with Paragraphs (b) through (e) of this section in the event of the loss of cabin pressure.

(b) Crewmembers. When operating at flight altitudes above 10,000 feet, the air carrier shall supply enough oxygen to comply with Section 135.339, but not less than a two hour supply for each flight crewmember on flight deck duty. The required two hours supply shall be calculated in the same manner as in Subsection 135.337(b). The oxygen required in the event of cabin pressurization failure by Section 135.339 may be included in determining the supply required for flight crewmembers on flight deck duty.

(c) Use of oxygen masks by flight crewmembers.

(1) Except as provided in paragraph (2)(i) below, when operating at flight altitudes above flight level 250, each flight crewmember station must be equipped with a quick donning type oxygen mask. This mask must be capable of being donned and supplying useful oxygen upon demand within a period of 5 seconds from the time of the loss of pressurization. It must also be so designed to allow immediate communication between the flight crewmember and other crewmembers over the aeroplane intercommunication system. When not in use, the oxygen mask must be stowed in such manner and location so as to be within the immediate reach of the flight crewmember while seated at his or her flight crew station.

(2) When operating at flight altitudes above flight level 250, at least one pilot seated at the flight controls shall wear and use supplemental at all times when;

(i) the aircraft is not equipped with quick donning type masks and is operated below flight level 410.

(ii) the aircraft is being operated at or above flight level 410, or

(iii) one of the flight crew members is not occupying his or her flight crew seat.

(3) Before the takeoff of a flight, each flight crewmember shall personally preflight his oxygen equipment to ensure that the oxygen mask is functioning, fitted properly, and connected to appropriate supply terminals, and that the oxygen supply and pressure are adequate for use.

(d) Use of portable oxygen equipment by cabin attendants. Each attendant shall, during flight above flight level 250 flight altitude, carry portable oxygen equipment with at least a 15 minute supply of oxygen unless it is shown that enough portable oxygen units with

masks or spare outlets and masks are distributed throughout the cabin to ensure immediate availability of oxygen to each cabin attendant, regardless of his location at the time of cabin depressurization.

(e) Passenger. When the aeroplane is operating at flight altitudes above 10,000 feet, the aircraft must be capable of supplying oxygen at the rate prescribed by this part, to the following passenger cabin occupants:

(1) Where the aeroplane is operated at flight level 250 or below and is able to descend to 14000 feet ASL within 4 minutes and safely maintain flight at that altitude, sufficient oxygen to supply 10% of the passengers for 30 minutes.

(2) Where the aeroplane is operated at flight level 250 or below but is not capable of descending to 14000 feet within 4 minutes or, the aeroplane is operated above flight level 250 and in either case the cabin altitude remains above 10,000 feet ASL, the supply of oxygen must meet the requirements of Subsection 135.139(c)(1)(2)(3) as applicable.

(3) Each air carrier must provide a supply of undiluted first aid oxygen in accordance with CASR 25.1443(d), sufficient for at least 2% of the passengers on board but in no case less than one person. Not less than two first aid oxygen dispensing units must be provided, with a means for the cabin attendants to use this supply.

135.343 Oxygen Equipment Standards

The oxygen apparatus, the minimum rates of oxygen flow, and the supply of oxygen necessary to comply with this Subpart must meet the standards established by the DGAC. An air carrier may apply for a deviation pursuant to Section 135.9 of this part where compliance with the oxygen requirements of this Subpart it would be impractical and an equivalent level of safety can be achieved.

135.345 Cargo and Baggage Compartments

(a) Each Class C or D compartment, as defined in Section 25.857 of Part 25 of the CASRs, greater than 200 cubic feet in volume must have ceiling and sidewall liner panels which are constructed of:

(1) Glass fiber reinforced resin;

(2) Materials which meet the test requirements of Part 25, Appendix F, Part III of the CASRs; or

(3) In the case of installations approved prior to CASR 25 the liner material must be aluminum.

(b) For compliance with this section, the term "liner" includes any design feature, such as a joint or fastener, which would affect the capability of the liner to safely contain a fire.

135.347 Lavatory Fire Protection

(a) After December 31, 2001 no person may operate a passenger-carrying aeroplane unless each lavatory in the aeroplane is equipped with a smoke detector system or equivalent that provides a warning light in the cockpit or provides a warning light or audio warning in the passenger cabin which would be readily detected by a flight attendant,

taking into consideration the positioning of flight attendants throughout the passenger compartment during various phases of flight.

(b) After December 31, 2001 no person may operate a passenger-carrying aeroplane unless each lavatory in the aeroplane is equipped with a built-in fire extinguisher for each disposal receptacle for towels, paper, or waste located within the lavatory. The built-in fire extinguisher must be designed to discharge automatically into each disposal receptacle upon occurrence of a fire in the receptacle.

135.349 Emergency Equipment

(a) General: No person shall operate an aeroplane unless it is equipped with the emergency equipment listed in this Subpart.

(b) Each item of emergency and flotation equipment listed in this Subpart:

- (1) must be inspected regularly in accordance with inspection periods established in the operations specifications to ensure its condition for continued serviceability and immediate readiness to perform its intended emergency purposes,
- (2) must be readily accessible to the crew and, with regard to equipment located in the passenger compartment, to passengers:
- (3) must be clearly identified and clearly marked to indicate its method of operation, and
- (4) when carried in a compartment or container, must be carried in a compartment or container marked as to contents and the compartment or container, or the item itself, must be marked as to date of last inspection.

(c) Hand fire extinguishers for crew, passenger, cargo, and galley compartments. Hand fire extinguishers of an approved type must be provided for use in crew, passenger, cargo, and galley compartments in accordance with the following:

- (1) The type and quantity of extinguishing agent must be suitable for the kinds of fires likely to occur in the compartment where the extinguisher is intended to be used and, for passenger compartments, must be designed to minimize the hazard of toxic gas concentrations.
- (2) Cargo compartments. At least one hand fire extinguisher must be conveniently located for use in each cargo compartment that is accessible to crewmembers during flight.
- (3) Galley compartments. At least one hand fire extinguisher must be conveniently located for use in each galley located in a compartment other than a passenger, cargo, or crew compartment.
- (4) Flight crew compartment. At least one hand fire extinguisher must be conveniently located on the flight deck for use by the flight crew.
- (5) Passenger compartments. At least one hand fire extinguisher must be conveniently located in the passenger compartment of each aircraft having a passenger seating configuration of 10 or more seats for both commuter and charter air operators.



(6) Notwithstanding the requirement for uniform distribution of hand fire extinguishers as prescribed in Paragraph (c)(5) of this section, for those cases where a galley is located in a passenger compartment, at least one hand fire extinguisher must be conveniently located and easily accessible for use in the galley.

(7) At least one of the required hand fire extinguisher installed in passenger-carrying airplanes must contain Halon 1211 (bromochlorofluoromethane) or equivalent as the extinguishing agent. Where only one of the extinguishers carried onboard the aeroplane is of a Halon 1211 type, that extinguisher must be located in the passenger cabin.

(d) First aid and emergency medical equipment

For treatment of injuries or medical emergencies that might occur during flight time or in minor accidents each aircraft having a passenger seating configuration of 10 or more seats for both commuter and charter air operators must have the following equipment that meets the specifications and requirements acceptable to the Director.

(1) Approved first aid kit with at least the following contents:

First Aid Kit Contents	Quantity
Adhesive bandage compressors, 1- inch	16
Antiseptic swabs	20
Ammonia inhalants	10
Bandage compressors, 4-inch	8
Triangular bandage compressors, 40-inch	5
Arm splint, non-inflatable	1
Leg splint, non-inflatable	1
Roller bandage, 4-inch	4
Adhesive tape, 1-inch standard roll	2
Bandage scissors	1
Protective latex gloves or equivalent non-permeable gloves	1 pair
Burn compound, 1/8-oz or an equivalent of other burn remedy	6

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- (2) In airplanes for which a flight attendant is required, an emergency medical kit containing the following medical supplies.

Emergency Medical Kit Contents	Quantity
sphygmomanometer	1
Stethoscope	1
Airways, oropharyngeal (3 sizes)	3
Syringes(as required to administer drugs)	4
Needles (as required to administer drugs)	6
50% Dextrose injection, 50cc	1
Epinephrine1:1000 single ample or equivalent	2
Diphenhydramine HCl injection, single dose ample or equivalent	2
Nitroglycerin Tablets	10
Basic instructions for use of the drugs in the kit	1

(e) Crash axe. Each aeroplane that has a lockable non frangible door separating the flight deck from the passenger cabin must be equipped with a crash axe that is readily accessible to the crew but inaccessible to passengers.

(f) After December 31, 2000, no person shall operate an aeroplane having a passenger seating configuration of more than 19 seats unless it has the following additional emergency equipment:

(1) Means for emergency evacuation. Each passenger-carrying landplane emergency exit (other than over the wing) that is more than 6 feet from the ground with the aeroplane on the ground and the landing gear extended, must have an approved means to assist the occupants in descending to the ground. The assisting means for a floor-level emergency exit must meet the requirements under which the aeroplane was type certificated. An assisting means that deploys automatically must be armed during taxiing, takeoffs, and landings. However, if the Director finds that the design of the exit makes compliance impractical, he may grant a deviation from the requirement of automatic deployment if the assisting means automatically erects upon deployment.

(2) Interior emergency exit marking. The following must be complied with for each passenger-carrying aeroplane:

(i) Each passenger emergency exit, its means of access, and its means of opening must be conspicuously marked. The identity and location of each passenger emergency exit must be recognizable from a distance equal to the width of the cabin. The location of each passenger emergency exit must be indicated by a sign visible to occupants approaching along the main passenger aisle. There must be a locating sign.

(ii) Above the aisle near each over the wing passenger emergency exit, or at another ceiling location if it is more practical because of low headroom:

- (iii) Next to each floor-level passenger emergency exit, except that one sign may serve two such exits if they both can be seen readily from that sign: and
- (iv) On each bulkhead or divider that prevents fore and aft vision along the passenger cabin, to indicate emergency exits beyond and obscured by it, except that if this is not possible the sign may be placed at another appropriate location.

(3) Each passenger emergency exit marking and each locating sign must meet the requirements under which the aeroplane was type certificated. On airplanes whose type certificate was filed with the country of manufacture prior to May 1, 1972 no sign may continue to be used if its Luminescence (brightness) decreases to below 100 microlamberts.

For an aeroplane for which the type certificate was filed with the country of manufacture on or after May 1, 1972, each passenger emergency exit marking and each locating sign must be manufactured to meet the interior emergency exit marking requirements under which the aeroplane was type certificated. On these airplanes, no sign may continue to be used if its luminescence (brightness) decreases to below 250 microlamberts.

(4) Lighting for interior emergency exit markings. Each passenger-carrying aeroplane must have an emergency lighting system, independent of the main lighting system. However, sources of general cabin illumination may be common to both the emergency and the main lighting systems if the power supply to the emergency lighting system is independent of the power supply to the main lighting system. The emergency lighting system must-

- (i) Illuminate each passenger exit marking and locating sign:
- (ii) Provide enough general lighting in the passenger cabin so that the average illumination when measured at 40-inch intervals at seat armrest height, on the centerline of the main passenger aisle, is at least 0.05 foot-candles: and
- (iii) For airplanes type certificated by the country of manufacture after January 1, 1958, include floor proximity emergency escape path marking which meets the requirements of Section 25.812(e) of the CASRs in effect December 1996.

(5) Emergency light operation. Except for lights forming part of emergency lighting subsystems provided in compliance with Section 25.812(h) of the CASRs (as prescribed in Paragraph (f) of this section) that serve no more than one assist means, are independent of the airplane's main emergency lighting systems, and are automatically activated when the assist means is deployed, each light required by Paragraphs (c) and (f) of this section must comply with the following:

- (i) Each light must :
 - (A) Be operable manually both from the flight crew station and, for airplanes on which a flight attendant is required, from a point in the passenger compartment that is readily accessible to a normal flight attendant seat:
 - (B) Have a means to prevent inadvertent operation of the manual controls:

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(C) When armed or turned on at either station, remain lighted or become lighted upon interruption of the airplane's normal electric power.

(ii) Each light must be armed or turned on during taxiing, takeoff, and landing. In showing compliance with this paragraph a transverse vertical separation of the fuselage need not be considered.

(iii) Each light must provide the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing.

Each light must have a cockpit control device that has an "on," "off," and "armed" position.

(6) Emergency exit operating handles.

For a passenger-carrying aeroplane the location of each passenger emergency exit operating handle and instructions for opening the exit must be shown in accordance with the requirements under which the aeroplane was type certificated. On these airplanes, no operating handle or operating handle cover may continue to be used if its luminescence (brightness) decreases to below 100 microlamberts.

(7) Emergency exit access. Access to emergency exits must be provided as follows for each passenger-carrying transport category aeroplane:

(i) Each passage way between individual passenger areas, or leading to a Type I or Type II emergency exit, must be unobstructed and at least 20 inches wide.

(ii) There must be enough space next to each Type I or Type II emergency exit to allow a crewmember to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required in Paragraph (f)(1) of this section. However the Director may authorize deviation from this requirement for airplanes certificated prior to CASR 25 if he finds that special circumstances exist that provide an equivalent level of safety.

(iii) There must be access from the main aisle to each Type III and Type IV exit. The access from the aisle to these exits must not be obstructed by seats, berths, or other protrusions in a manner that would reduce the effectiveness of the exit. In addition:

(A) For an aeroplane which was type certificated prior to CASR 25 the access must meet the requirements under which the aeroplane was type certificated.

(B) The access for an aeroplane type certificated under CASR 25 must meet the requirements of Section 25.813(c) in effect December 1996.

(C) Contrary provisions of this section notwithstanding, the DGAC may authorize deviation from the requirements of Paragraph (f)(2)(iii) of this section if it is determined that special circumstances make compliance impractical. Such special circumstances include, but are not limited to, the following conditions when they preclude achieving compliance with Section 25.813(c)(1)(i) or (ii) without a reduction in the total number of passenger seats: emergency exits located in close proximity to each other: fixed installations such as lavatories, galleys,



etc.: permanently mounted bulkheads: an insufficient number of rows ahead of or behind the exit to enable compliance without a reduction in the seat row pitch of more than one inch: or an insufficient number of such rows to enable compliance without a reduction in the seat row pitch to less than 30 inches. A request for such grant of deviation must include credible reasons as to why literal compliance with Section 25.813(c)(1)(i) or (ii) is impractical and a description of the steps taken to achieve a level of safety as close to that intended by Section 25.813(c)(1)(i) or (ii) as is practical.

(8) If it is necessary to pass through a passageway between passenger compartments to reach any required emergency exit from any seat in the passenger cabin, the passageway must not be obstructed. However, curtains may be used if they allow free entry through the passageway.

(9) No door may be installed in any partition between passenger compartments.

(10) If it is necessary to pass through a doorway separating the passenger cabin from other areas to reach required emergency exit from any passenger seat, the door must have a means to latch it in open position, and the door must be latched open during each takeoff and landing. The latching means must be able to withstand the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, listed in Section 25.561(b) of the CASRs.

(11) Exterior exit markings. Each passenger emergency exit and the means of opening that exit from the outside must be marked on the outside of the aeroplane. There must be a 2-inch colored band outlining each passenger emergency exit on the side of the fuselage. Each outside marking, including the band, must be readily distinguishable from the surrounding fuselage area by contrast in color. The markings must comply with the following:

(i) If the reflectance of the darker color is 15 percent or less, the reflectance of the lighter color must be at least 45 percent.

(ii) If the reflectance of the darker color is greater than 15 percent, at least a 30 percent difference between its reflectance and the reflectance of the lighter color must be provided.

(iii) Exits that are not in the side of the fuselage must have the external means of opening and applicable instructions marked conspicuously in red or, if red is inconspicuous against the background color, in bright chrome yellow and, when the opening means for such an exit is located on only one side of the fuselage, a conspicuous marking to that effect must be provided on the other side.

Note: "Reflectance" is the ratio of the luminous flux reflected by a body to the luminous flux it receives.

(12) Exterior emergency lighting and escape route.

(I) Each passenger-carrying aeroplane must be equipped with exterior lighting that meets the emergency lighting requirements under which the aeroplane was type certificated.

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- (ii) Each passenger-carrying aeroplane must be equipped with a slip resistant escape route that meets the slip resistant escape route requirements under which the aeroplane type certificated.
- (13) Floor level exits. Each floor level door or exit in the side of the fuselage (other than those leading into a cargo or baggage compartment that is not accessible from the passenger cabin) that is 44 or more inches high and 20 or more inches wide, but not wider than 46 inches; each passenger ventral exit; and each tail cone exit, must meet the requirements of this section for floor-level emergency exits. However, the Director may grant a deviation from this paragraph if he finds that circumstances make full compliance impractical and that an acceptable level of safety has been achieved.
- (14) Additional emergency exits. Approved emergency exits in the passenger compartments that are in excess of the minimum number of required emergency exits must meet all of the applicable provisions of this section except Paragraphs (f)(1), (2), and (3) of this section and must be readily accessible.
- (15) On each large passenger-carrying turbojet-powered aeroplane, each ventral exit and tailcone exit must be:
 - (i) Designed and constructed so that it cannot be opened during flight; and
 - (ii) Marked with a placard readable from a distance of 30 inches and installed at a conspicuous location near the means of opening the exit, stating that the exit has been designed and constructed so that it cannot be opened during flight.
- (16) Portable lights. No person may operate a passenger-carrying aeroplane unless it is equipped with flashlight stowage provisions accessible from each flight attendant seat.

135.351 Survival Equipment for Overwater Operations

(a) Except for the purpose of take off and landing, no air carrier shall operate any single engine aeroplane carrying passengers, over water beyond gliding distance from shore unless,

- (1) the aeroplane is of a type or configuration designed to take off or land on the water and is not operated more than 50 nautical miles from shore, and
- (2) each occupant on board that aircraft is provided, a life preserver or approved flotation device.

(b) Except as provided by Paragraph (5), below, no person may operate a multi-engine aeroplane in passenger carrying operations more than 30 minutes flying time or 100 nautical miles from shore unless;

- (1) each occupant on board that aircraft is provided, a life preserver equipped with an approved survivor locator light,
- (2) there are on board that aeroplane, sufficient life rafts of a rated capacity and buoyancy to accommodate all the occupants on board that aeroplane and equipped with an approved survivor locator light. Unless excess rafts of enough capacity are provided, the buoyancy and seating capacity of the rafts must accommodate all occupants of the aeroplane in the event of a loss of one raft of the largest rated capacity.

(3) At least one pyrotechnic and reflective signaling device for each life raft. Such reflective devices must have a means of aiming the device at the intended target.

(4) An approved survival type emergency locator transmitter. Batteries used in this transmitter must be replaced (or recharged, if the battery is rechargeable) when the transmitter has been in use for more than 1 cumulative hour, or when 50 percent of their useful life (or for rechargeable batteries, 50 percent of their useful life of charge) has expired, as established by the transmitter manufacturer under its approval. The new expiration date for replacing (or recharging) the battery must be legibly marked on the outside of the transmitter. The battery useful life (or useful life of charge) requirements of this paragraph do not apply to batteries (such as water activated batteries) that are essentially unaffected during storage intervals.

(5) By amending the operations specifications of the air carrier, the Director may authorize less than all the items of equipment listed above be carried for all overwater operations. Or, after application by the air carrier, the Director may issue a Letter of Deviation Authority granting relief from carrying specific items of equipment listed above for a specific overwater operations.

(c) The required life rafts, life preservers, and survival type emergency locator transmitter must be easily accessible in the event of a ditching without appreciable time for preparatory procedures. This equipment must be installed in conspicuously marked, approved locations.

(d) A survival kit, appropriately equipped for the route to be flown, must be attached to each required life raft.

135.353 Equipment for Single Engine Helicopter Overwater Operations

No person may operate a single engine helicopter over water beyond autorotative gliding distance from the land unless it is equipped with the following equipment:

(1) Helicopter flotation devices.

(2) A life preserver (or other adequate individual flotation device) for each occupant.

(3) Any other equipment that the Director determines is necessary for safety for a particular operation.

135.355 Emergency Flotation Device

(a) Except as provided in Paragraph (b) of this section, no person may operate an aeroplane that has a passenger configuration of 10 or more seats used in commuter operations in any overwater operation after December 31, 2000 unless;

(1) it is equipped with a life preserver or an approved flotation device for each occupant, and

(2) such device is within easy reach of each seated occupant and must be readily removable from the aeroplane.

(b) Upon application by the air carrier, the Director may approve the operation of an aeroplane over water without the life preservers or flotation devices required by Subsection (a) of this section, if the operator shows that the water over which the aeroplane is to be operated is not of such size and depth that life preservers or flotation

means would be required for the survival of its occupants in the event the flight terminates in that water.

135.357 Emergency Equipment for Flights over Uninhabited Terrain

(a) No person may conduct operations over an uninhabited area or any other area that (in its operations specifications) the Director specifies required equipment for search and rescue in case of an emergency, Unless the aircraft has the following equipment,

(1) Suitable pyrotechnic and reflective signaling devices. Such reflective devices must have a means of aiming the device at the intended target.

(2) An approved survival type emergency locator transmitter. Batteries used in this transmitter must be replaced (or recharged, if the battery is rechargeable) when the transmitter has been in use for more than 1 cumulative hour, or when 50 percent of their useful life (or for rechargeable batteries, 50 percent of their useful life of charge) has expired, as established by the transmitter manufacturer under its approval. The new expiration date for replacing (or recharging) the battery must be legibly marked on the outside of the transmitter. The battery useful life (or useful life of charge) requirements of this paragraph do not apply to batteries (such as water activated batteries) that are essentially unaffected during probable storage intervals,

(3) Enough survival kits, appropriately equipped for the route to be flown for the number of occupants of the aeroplane, and

(4) portable radio transmitter of a type approved by the Director for the operation being undertaken.

135.359 Reserved

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART L - MAINTENANCE, PREVENTIVE MAINTENANCE AND ALTERATIONS

135.361 Applicability.

(a) Except as provided by paragraph (b) of this section, this subpart prescribes requirements for maintenance, preventive maintenance, and alterations for each certificate holder.

(b) The Director may amend a certificate holder's operations specifications to permit deviation from those provisions of this subpart that would prevent the return to service and use of airframe components, powerplants, appliances, and spare parts thereof because those items have been maintained, altered, or inspected by persons employed outside Indonesia who do not hold Indonesia licenses. Each certificate holder who uses parts under this deviation must provide for surveillance of facilities and practices to ensure that all work performed on these parts is accomplished in accordance with the certificate holder's Company Maintenance Manual (CMM).

135.363 Responsibility for airworthiness.

(a) Each certificate holder is primarily responsible for:

(1) The airworthiness of its aircraft, including airframe, engines, propellers, rotors, appliances, and parts thereof; and

(2) The performance of the maintenance, preventive maintenance, and alteration of its aircraft, including airframes, engines, propellers, rotors, appliances, emergency equipment, and parts thereof, in accordance with its CMM and the CASR Part 43.

(b) Each certificate holder may make arrangements with another person for the performance of any maintenance, preventive maintenance, or alteration. However, this does not relieve certificate holder of the responsibility specified in paragraph (a) of this section.

135.365 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.

(b) Each certificate holder that perform any inspection required by its company maintenance manual under Section 135.369, (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 inspection in addition to other maintenance, preventive maintenance or alterations, 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 alteration functions is exercised.

135.367 Maintenance, preventive maintenance, and alterations program.

(a) Each certificate holder shall have an inspection program and a program covering other maintenance, preventive maintenance, and alterations, that ensures that:

(1) Maintenance, preventive maintenance, and alterations performed by it, or by other persons, are performed in accordance with:

(i) The certificate holder's manual; and

(ii) Approved continuous airworthiness maintenance program;

(2) Competent personnel and adequate facilities and equipment are provided for the proper performance of maintenance, preventive maintenance, and alterations; and

(3) Each aircraft released to service is airworthy and has been properly maintained for operation under this part.

(b) (1) Each certificate holder who operates an aircraft type certificated for a passenger seating configuration, excluding any pilot seat, of nine seats or less, must comply with the manufacturer's recommended maintenance programs and approved by the Director, or approved aircraft inspection program, for each aircraft engine, propeller, rotor, and each item of emergency equipment required by the CASRs.

(2) For the purpose of this paragraph (b)(1), a manufacturer's maintenance program is one which is contained in the maintenance manual or maintenance instructions set forth by the manufacturer as required by the CASRs for the aircraft, aircraft engine, propeller, rotor or item of emergency equipment.

(c) Whenever the Director finds that revisions to an approved maintenance program are necessary for the continued adequacy of the program, the certificate holder shall, after notification by the Director, make any changes in the program found by the Director to be necessary.

(d) For each single engine aircraft to be used in IFR operations, the certificate holder must incorporate into its maintenance program either:

(1) the manufacturer's recommended engine trend monitoring program, which includes an oil analysis, if appropriate; or

(2) an approved engine trend monitoring program that includes an oil analysis at each 100 hour interval or at the manufacturer's suggested interval, whichever is more frequent.

(3) procedures for recording and maintaining in the engine maintenance records the results of each test, observation, and inspection required by the applicable

engine trend monitoring program specified in paragraph (d)(1) and (d)(2) of this section.

(e) For single engine aircraft to be used in IFR operations, written maintenance instructions containing the methods, techniques, and practices necessary to maintain the autopilot, navigation and flight equipment specified in Section 135.21(d) must be contained in the aircraft maintenance program.

(f) *Changes from one maintenance program to another.* When an operator changes from one maintenance program to another, the time in service, calendar times, or cycles of operation accumulated under the previous program must be calculated to determine inspection due times under the new program.

135.368 Performance standards.

Each certificate holder that performs any of its maintenance, preventive maintenance, or alteration, and each person with whom it arranges for the performance of that work must meet the following requirements of:

- (a) CASR 145.35 or CASR 145.37 as appropriate;
- (b) CASR 145.39 through CASR 145.45;
- (c) CASR 145.47 or CASR 145.49 as appropriate;
- (d) CASR 145.57; and
- (e) CASR 145.59.

135.369 Company Maintenance Manual requirements.

The certificate holder shall provide the Director with a Company Maintenance Manual approved by DGAC which shall contain:

(a) a statement signed by the Chief Executive, on behalf of the applicant's organization, confirming that the company maintenance manual:

- (1) defines the organization and demonstrate its means and methods for ensuring ongoing compliance with this CASR; and
- (2) will be complied with at all times; and

(b) procedures to control, amend and distribute the company maintenance manual to 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;

(c) a chart or description of the certificate holder's organization required by CASR 135.365;

(d) the duties and responsibilities of the person or persons specified in paragraph (c) including matters for which they have responsibility to deal directly with the Director on behalf of the Certificate holder;

(e) a list of persons with whom it has arranged for the performance of any of its required inspections, other maintenance, preventive maintenance, or alterations, including a general description of that work;

(f) details of the applicant's staffing structure, or the persons with whom the certificate holder has arranged to carry out the maintenance, at each of its maintenance locations listed under paragraph (g) below;

(g) details of all locations where the applicant conducts maintenance and the facilities at those locations;

(h) procedures regarding maintenance to be carried out at locations not listed in the company maintenance manual;

(i) the procedures and programs required by CASR 135.367 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;

(j) procedures to ensure that required inspections, other maintenance, preventive maintenance, and alterations that are completed as a result of shift changes or similar work interruptions are properly completed before the aircraft is released to service;

(k) Samples of inspection forms, tags, and the method of executing them; and

(l) detailed description of the scope of work undertaken by the applicant; and details of the applicant's procedures regarding:

(1) the responsibilities for airworthiness;

(2) arrangements made for the performance of maintenance by other persons;

(3) the provision of adequate housing and facilities;

(4) the provision of adequate equipment and materials;

(5) the provision of satisfactory storage and segregation of spare parts;

(6) procedures, standards, and limits necessary for periodic inspection and calibration of precision tools, measuring devices, and test equipment;

(7) performance standards;

(8) inspection of work performed;

(9) all required inspection procedures including the method and procedures for performing required inspections and a designation by occupational title of personnel authorized to perform each required inspection;

(10) competence of personnel;

(11) the internal inspection system of the organization in a manner easily understood by any employee of the organization including the continuity of inspection responsibility;

(12) the internal quality assurance of the organization;

(13) on-going training of personnel;

- (14) the method for controlling engineer duty time;
- (15) the method of recording the scope of approvals granted to supervisors and inspection personnel;
- (16) the recording of maintenance carried out and retention of maintenance records;
- (17) the reporting of aircraft defects and unairworthy conditions;
- (18) the control and amendment of airworthiness data;
- (19) the procurement and acceptance of aircraft material, parts, components and services from external sources; and
- (20) procedures to ensure that reference, whenever necessary, is made to the manufacturer's inspection standards for the maintenance of any article.

135.371 Required inspections and appropriate personnel.

For the purpose of these regulations Required Inspection are items of maintenance and alteration that must be inspected, includes those that could result in a failure, malfunction, or defect endangering the safe operation of the aircraft, if not performed properly or improper parts or materials are used.

(a) No person may use any person to perform required inspections unless the person performing the inspection is appropriately licensed, properly trained, qualified, and authorized to do so.

(b) No person may allow any person to perform a required inspection unless, at that time, the person performing that inspection is under the supervision and control of an inspection unit.

(c) No person may perform a required inspection if he performed the item of work required to be inspected.

(d) The decision of an inspector, regarding any required inspection may not be countermanded by a person other than supervisory personnel of the inspection unit, or a person at that level of administrative control that has overall responsibility for the management of both the required inspection functions and the other maintenance, preventive maintenance, and alterations functions.

(e) Each person performing a Required Inspection Item (RII), in addition to other types of maintenance, shall separate these maintenance functions. The separation shall be below the level of administrative control which has overall responsibility for the performance of the RIIs and the other maintenance.

(f) In the case of rotorcraft that operate in remote areas or sites, the Director may approve procedures for the performance of required inspection items by the pilot in command when no other qualified person is available, provided:

- (1) The pilot is employed by the certificate holder;

- (2) It can be shown to the satisfaction of the Director that each pilot authorized to perform required inspections is properly trained and qualified;
- (3) The required inspection is a result of a mechanical interruption and is not a part of a certificate holder's continuous airworthiness maintenance program;
- (4) Prior to each takeoff each item is inspected in accordance with the approved limitations as laid down in the company maintenance manual; and
- (5) Each item of work that is a required inspection item that is a mechanical part of the flight control system shall be flight tested before the aircraft is approved for return to service

135.373 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 inspection program and the program covering other maintenance, preventive maintenance, and alterations 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 safety policy and safety policy procedures that are relevant to the applicant's organizational goals and the expectations and needs of its customers;
- (2) a procedure to ensure quality indicators, including defect and incident reports, and personnel and customer feedback, are monitored to identify existing problems or potential causes of problems within the system;
- (3) an internal audit program to audit the applicant's organization for conformity with the procedures in its company maintenance manual and achievement of the goals set in its safety policy;
- (4) a procedure for corrective action to ensure existing problems that have been identified within the system are corrected;
- (5) a procedure for preventive action to ensure that potential causes of problems that have been identified within the system are remedied; and
- (6) management review procedures, which shall include the use of statistical analysis, to ensure the continuing suitability and effectiveness of the continuing analysis and surveillance system in satisfying the requirements of this Part.

(c) The safety policy procedures shall ensure that the safety policy is understood, implemented, and maintained at all levels of the organization.

(d) The internal audit program shall:

- (1) specify the frequency and location of the audits taking into account the nature of the activity to be audited;
- (2) ensure audits are performed by trained auditing personnel who are independent of those having direct responsibility for the activity being audited;

- (3) measure the results of audits are reported to the personnel responsible for the activity being audited and the manager responsible for internal audits;
 - (4) require preventive or corrective action to be taken by the personnel responsible for the activity being audited if problems are found by the audit; and
 - (5) ensure follow up audits to review the effectiveness of any preventive or corrective action taken.
- (e) The procedure for corrective action shall specify how:
- (1) to correct an existing problem;
 - (2) to follow up a corrective action to ensure the action is effective; and
 - (3) management will measure the effectiveness of any corrective action taken.
- (f) The procedure for preventive action shall specify how:
- (1) to correct a potential problem;
 - (2) to follow up a preventive action to ensure the action is effective;
 - (3) to amend any procedure required by this Part as a result of a preventive action; and
 - (4) management will measure the effectiveness of any preventive action taken.
- (g) The procedure for management review shall:
- (1) specify the frequency of management reviews of the quality assurance system taking into account the need for the continuing effectiveness of the system;
 - (2) identify the responsible manager who shall review the quality assurance system; and
 - (3) ensure the results of the review are evaluated and recorded.
- (h) The senior person who has the responsibility for internal quality assurance shall have direct access to the Chief Executive on matters affecting safety.
- (i) Whenever the Director finds that either or both of the programs described in paragraph (a) of this section does not contain adequate procedures and standards to meet the requirements of this part, the certificate holder shall, after notification by the Director, make any changes in those programs that are necessary to meet those requirements.

135.375 Maintenance and preventive maintenance training program.

- (a) Each certificate holder or person performing maintenance or preventive maintenance functions for it shall have a training program to ensure that each person (including inspection personnel) who determines the adequacy of work done is fully informed about procedures and techniques and new equipment in use and is competent to perform his duties.

(b) The training program shall ensure all maintenance personnel receive initial training and continuation training appropriate to their assigned tasks and responsibilities, and shall include training in knowledge and skills related to human performance, including co-ordination with other maintenance personnel and flight crew.

135.377 Maintenance and preventive maintenance personnel duty time limitations.

Within Indonesia, each certificate holder (or person performing maintenance or preventive maintenance functions for it) shall relieve each person performing maintenance or preventive maintenance from duty for a period of at least 24 consecutive hours during any seven consecutive days, or the equivalent thereof within any one calendar month.

135.378 Certificate Requirements.

(a) Except for maintenance, preventive maintenance, alterations, and required inspections performed by Approved Maintenance Organizations certificated under the provisions of subpart C of Part 145, each person who is directly in charge of maintenance, preventive maintenance, or alteration, and each person performing required inspections must hold an appropriate License issued under Part 65.

(b) For the purposes of this section, a person "directly in charge" is each person assigned to a position in which he is responsible for the work of a shop or organization that performs maintenance, preventive maintenance, alterations, or other functions affecting aircraft airworthiness. A person who is "directly in charge" need not physically observe and direct each worker constantly but must be available for consultation and decision on matters requiring instruction or decision from higher authority than that of the persons performing the work.

135.379 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 company maintenance manual. In addition, a certificate holder may perform these functions for another certificate holder as provided in the company maintenance manual of the other certificate holder. However, this does not relieve the certificate holder of the responsibility specified in paragraph 135.363(a) of this section.

(b) A certificate holder may approve any aircraft, airframe, engine, propeller, rotors 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.

135.380 Maintenance recording requirements.

(a) The certificate holder must describe in its company maintenance manual a suitable system (which may include a coded system) that provides for preservation and retrieval of information in a manner acceptable to the Director. The following records shall be kept for the periods specified in paragraph (b) of this section:

(1) All the records necessary to show that all requirements for the issuance of a maintenance release under CASR 43 and Section 135.709 have been met,

(2) A description (or reference to data acceptable to the Director) of the work performed

(3) Records of all other maintenance work that it does, identifying by name and number the licensed engineer who performed or supervised the work, and the inspector of that work.

(4) Records containing the following information:

(i) The total time in service of the airframe.

(ii) The total time in service of each engine and propeller.

(iii) The current status of life-limited parts of each airframe, engine, rotor, propeller, and appliance.

(iv) The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.

(v) The identification of the current inspection status of the aircraft, including the times since the last inspections required by the inspection program under which the aircraft and its appliances are maintained.

(vi) The current status of applicable airworthiness directives, including the date and methods of compliance, and if the airworthiness directive involves recurring action, the time and date when the next action is required.

(vii) A list of current alterations to each airframe, engine, rotor, propeller, and appliance.

NOTE: That 'time' means calendar time, hours or cycles as applicable.

(b) Each certificate holder shall retain the records required to be kept by this section for the following periods:

(1) Except for the records of the last complete overhaul of each airframe, engine, propeller, and appliance, the records specified in paragraph (a)(1) of this section shall be retained until the work is repeated or superseded by other work or for two years after the work is performed,

(2) The records of the last complete overhaul of each airframe, engine, rotor, propeller, and appliance shall be retained until the work is superseded by work of equivalent scope and detail.

(3) The records specified in paragraph (a)(4) of this section shall be retained for a minimum period of 90 days after the unit to which they refer has been permanently withdrawn from service.

(c) The certificate holder shall make all maintenance records required to be kept by this section available for inspection by the Director.

135.380a Transfer of maintenance records

Each certificate holder who sells an Indonesian registered aircraft shall transfer to the purchaser, at the time of sale, the following records of that aircraft, in plain language form or in coded form at the election of the purchaser, if the coded form provides for the preservation and retrieval of information in a manner acceptable to the Director:

(a) The records specified in Section 135.380(a)(4).

(b) The records specified in Section 135.380(a)(1) and (a)(3) which are not included in the records covered by paragraph (a) of this section, except that the purchaser may permit the seller to keep physical custody of such records. However, custody of records in the seller does not relieve the purchaser of his responsibility under Section 135.380(c) to make the records available for inspection by the Director.

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SUBPART M – FLIGHT OPERATIONS PERSONNEL REQUIREMENTS

135.381 Applicability This subpart prescribes the minimum number and qualifications of the flight operations personnel required for all air carriers operating under this Part.

135.383 Minimum flight crew

(a) No air carrier may operate an aircraft in any air transportation service operated under this part, with fewer than two pilots, where the aircraft,

- (1) is an aeroplane with a certified seating configuration of 10 or more passenger seats.
- (2) is carrying passengers and is being operated IFR,
- (3) is of a type required by its type certificate to be operated by two or more pilots, or,
- (4) is operating under special authority where the minimum flight crew is greater than those specified in this section.

135.385 Designation of Pilot-in-command and Second-in-command

(a) Subject to subsection (b) of this section, an air carrier shall designate prior to each flight, a pilot in command. Where the crew includes two pilots, flight crew designation must include, the pilot-in-command and a second-in-command. Subject to Section 135.387 of this Subpart, such crew designations shall remain in force for the entire flight or series of flights.

(b) Where the minimum number of flight crewmembers required by Section 135.383 of this subpart, has been increased due to operational needs, the extra crewmembers shall be assigned a crew designation commensurate with their duties for the period of time such additional crewmembers are occupying a flight crewmember seat.

135.387 Succession of command and assumption of control

(a) In the event a situation is encountered during flight, where the pilot-in-command is no longer able to perform his duties as pilot-in-command, the control and command of the aircraft shall be relinquished to;

- (1) another captain qualified on the type, in accordance with this Part, or
- (2) to the assigned second-in-command of the flight,

(b) in any event the non-pilot-flying of a flight, has reason to believe that the pilot-flying has become incapacitated to the point where the safety of the aircraft has been, or is certain to become endangered, the non-flying-pilot shall, in a manner described in the air carrier COM;

- (1) notify the incapacitated pilot, of his intention to assume control of the aircraft,
- (2) take what ever action is required to re-establish flight stability or control of the aircraft, and
- (3) where the incapacitation involves the pilot-in-command and it is expected to remain unchanged for the remainder of the flight, the second in command will as soon as practicable, comply with Subsection (a) of this section.

(c) Where any succession of command has occurred with the result that the flight crewmembers operating the aircraft no longer meet the qualification requirements of this Part, the remaining flight crew member shall as soon as practicable:

- (1) notify ATC of the operating irregularity and request appropriate assistance; and
- (2) within 72 hours after the arrival of such flight, submit a full written report to the DGAC.

135.389 Flight crew qualifications

(a) Subject to subsections (b) and (c) of this section, no air carrier shall assign a person to act and no person shall act as a flight crewmember unless that person:

- (1) Holds the flight crew licence, ratings and certificates required by CASR Part 61;
- (2) Holds a valid medical certificate issued pursuant to CASR Part 67;
- (3) Within the preceding 90 days has completed at least three take-offs and landings:
 - (i) where a type rating is required, in an aircraft of that type or, in a flight simulator of that type which has been approved by the Director for take-off and landing credits;
 - (ii) where a type rating is not required, in an aircraft of that category, class and type;
 - (iii) where the 90 day recency requirement has been exceeded by more than 30 days, such pilot shall undergo the recency training prescribed in Subpart N of this part.
- (4) Has successfully completed all appropriate phases of training and checking prescribed in Subpart N;
- (5) Is otherwise qualified in accordance with this Subpart.

(b) Notwithstanding Section .139 of part 61, no air carrier shall permit and no person shall act as the pilot in command of an aircraft with a maximum certified take-off weight of more than 12500 pounds, unless that person is the holder of an airline transport pilot licence issued pursuant to Part 61.

(c) No air carrier may assign and no person shall act as second in command of an aircraft being operated under the instrument flight conditions, unless that person is the holder of a valid airline transport pilot licence, or a commercial licence with a valid instrument rating.

(d) The holder of any document required by Subsection (a) of this section, shall carry such documents at all times when performing the privileges of the documents and upon request of the Director, present such documents for inspection.

(e) No air carrier shall assign a person to act and no person shall act as the pilot in command on an aircraft engaged in any air transportation service under this part, if that person has reached his or her 60th birthday.

135.391 Flight Attendants

No air carrier shall operate an aircraft with passengers on board, unless at least the number flight attendants as laid down in Section 135.101 of this part are on board.

135.393 Flight Attendant Qualifications

(a) No air carrier shall assign and no person shall act in the capacity of a flight attendant on an aircraft, unless that person,

- (1) is the holder of a flight attendant certificate endorsed for the type of aircraft on which such person is to act,
- (2) has successfully completed the air carrier's approved course of training and checking appropriate to that type of aircraft as prescribed in Subpart N of this part, and
- (3) is otherwise qualified in accordance with this Subpart, except,
- (4) in the case of a person performing flight attendant duties pursuant to Subsection (c) of section 135.101.

135.395 Flight Operations Officers.

(a) An air carrier shall provide sufficient flight operations officers to meet the operational control requirements of Subsection 593 (c) of subpart P.

(b) FOO required by this Subpart shall normally be stationed at operational bases or airports from which the air carrier operated originating flights using aircraft with a maximum certified take-off weight (MCTOW), of greater than 12500 pounds, or as prescribed by the Director.

135.397 Flight Operations Officer Qualifications

(a) No air carrier shall assign and no person shall act as a flight operations officer for the purpose of exercising of operational control over a flight unless such person,

- (1) is the holder of a flight operations officer licence endorsed for the type of aircraft being released,
- (2) has successfully completed all required initial and recurrent training and checking prescribed in Subpart N of this part, and
- (3) is otherwise qualified in accordance with this Part.

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SUBPART N - TRAINING AND CHECKING PROGRAMS AND VALIDITY PERIODS

135.401 Applicability

(a) This subpart prescribes the requirements for the training and checking programs of air carriers operating under this part and the validity periods for such training and checking.

(b) Unless a person has been trained and certified pursuant to this subpart, as being competent to perform their assigned duties, no air carrier shall assign a person to act and no person shall act as;

- (1) a flight crew member,
- (2) a crew member,
- (3) a flight operations officer, or
- (4) a person performing any ground handling, or service related duty to an aircraft, except those duties performed by certified maintenance personnel .

135.403 Training Programs

(a) Every air carrier shall establish and maintain a ground and flight training program that is;

- (1) designed to ensure that each person who receives training, acquires the competency to perform that persons assigned duties, and
- (2) approved by the Director in accordance with Section 421 of this Subpart.

(b) An air carrier's ground and flight training program shall, include the following individual components, as applicable to the air carrier and each person receiving training. The syllabus for each training component shall, be in written form and include the assigned period of time allotted to the individual subject, during both initial and recurrent phase of training as designated below. Each syllabus published pursuant to this part shall be of sufficient detail to clearly illustrate the depth of the material contained in each individual subject. Where specific training is required for different functional rank, such syllabus must make appropriate clarification as to the intended recipient.

No	Required Training Component	Initial	Recurrent
1	Company Indoctrination Training	Yes	No
2	Windshear Training,	Yes	Yes
3	Crew Resource Management Training,	Yes	Yes
4	Transportation of Dangerous Goods Training,	Yes	Yes
5	Emergency Equipment and Procedures Training,	Yes	Yes
6	Aircraft Surface Contamination Training,	Yes	Yes
7	Category II and Category III Operations Training,	Yes	Yes
8	Extended Twin-engine Range Operations Training,	Yes	Yes
9	Aircraft Technical Ground Training,	Yes	Yes
10	Aircraft Flight Training,	Yes	Yes
11	Differences Training,	Yes	Yes

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No	Required Training Component	Initial	Recurrent
12	Upgrade Training,	Yes	No
13	Line Indoctrination Training for Flight Crew Members	Yes	No
14	Recency of Experience Training	As req.	As req.
15	Flight Attendant Ground Training,	Yes	Yes
16	Flight Attendant Operational Training,	Yes	Yes
17	Flight Operations Officer Ground and Flight Training,	Yes	Yes
18	Aircraft Servicing and Ground Handling Training,	Yes	No

(c) An air carrier's ground training programs may be designed and delivered as;

- (1) a classroom instructor lecturer or facilitator,
- (2) audio-visual, video or film training,
- (3) computer based training (CBT), or
- (4) any combination of the above, provided that;
 - (i) each course given by, or on behalf of an air carrier shall include an examination of sufficient scope and depth to establish the trainee's comprehension level, and
 - (ii) each examination shall be reviewed with the trainee in sufficient scope and depth to clarify any misconceptions.

(d) In the case of single-engine aircraft, or as otherwise approved by the Director, an air carrier may present certain portions of its training program through self study. In such cases all related examinations must be completed in the presence of a company instructor or supervisor.

(e) Each training component listed herein must publish a syllabus that meets the criteria prescribed in Sections 135. 429 to 135.471 as applicable and appropriate to the air carrier's scope of operations. Minimum training times are published in Annex N-B of this Part . Where no training time is published, the course duration must be acceptable to the Director

135.405 Training Facilities

An Air carrier's training equipment and facilities shall be adequate to ensure that the training objectives can be achieved. Facilities shall be;

- (1) quiet and free from distraction,
- (2) suitably lighted for the type of instruction to be given with effective dimming capability,
- (3) furnished with sufficient training equipment so as to enable the training staff full flexibility in their presentations, and
- (4) equipped with training aids suitable to ensure a high level of comprehension on any description or concept which should, by reason of its complexity, be amplified by the use of visual aids.

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135.407 Contract Training

(a) An air carrier may contract its crewmember training to another training organization provided;

(1) the training agreement is included in the air carrier's approved training program and the methods by which the air carrier will monitor quality assurance, of the training being delivered by the outside organization.

(2) the outside organization shall use the actual manuals, or procedural documents approved for the air carrier's use.

(3) all flight training devices and aircraft used for training, must be of the same type and model as the aircraft operated by the carrier, except where adequate differences training has been approved in the training program.

(4) The training organization shall record any training or checking administered by it, on the company's approved training records.

(b) When an outside training organization is used, an air carrier shall ensure that all training received, has been given by training and checking personnel, who meet or have equivalent qualifications as those prescribed by Section 409 of this subpart.

135.409 Qualifications and Training requirements for Instructors

(a) No air carrier shall use any person to give crewmember ground training, unless that person;

(1) has satisfied the air carrier that he or she has the knowledge and skills required to conduct that training,

(2) if conducting aircraft type training, has successfully completed the ground school for the type of aircraft including required examinations, and

(3) has completed the training prescribed in Subsection (c) of this section.

(b) No air carrier shall use a person to give flight instruction to a flight crewmember unless that person;

(1) is qualified in accordance with Subsection (a) of this section,

(2) is the holder of all licences, ratings and certificates issued pursuant to Part 61, which are required to act as the pilot in command of the aircraft type he or she is to give instruction on,

(3) has been certified as competent from both pilot seats, to perform the duties and responsibilities of the pilot flying and pilot not flying, while giving flight instruction to the trainee, and

(4) has been given training in operation of aircraft type flight simulators or other synthetic flight training device used for training purposes.

(c) Each instructor used to give formal training to any crewmember shall receive training in;

(1) the fundamental principles of the teaching/learning process,

(2) teaching methods and procedures,

(3) the instructor/student relationship, and

(4) human factors relating to the effects of stress and hazardous attitudes.



135.411 Qualifications and Training Requirements for Company Check Pilots

(a) No air carrier shall use a person and no person shall act as a company check pilot (CCP), unless that person;

(1) meets all the requirements of Section 135.409 of this Part,

(2) has received CCP specific training in at least the following subjects;

(i) CCP duties and responsibilities and the reporting relationship between a CCP, the chief pilot and the Director,

(ii) applicable civil aviation safety regulations, the carrier's operations specifications, and all relevant procedures manuals,

(iii) the appropriate methods, procedures, and techniques for conducting the proficiency checks, including flight test protocol,

(iv) proper evaluation of pilot performance including the detection of

(A) improper and insufficient training; and

(B) personal characteristics that could adversely affect safety,

(v) the appropriate action in the case of an unsatisfactory assessment, and

(vi) the approved methods, procedures, and limitations for performing the required normal, abnormal, and emergency maneuvers in the aircraft.

(3) is the holder of a delegation of authority issued by the Director which authorizes;

(i) the type of check to be performed, and

(ii) the type of aircraft to be performed in.

(4) has within the preceding 12 months, completed at least one proficiency check, while being monitored by a DGAC inspector.

135.413 Company Check Pilot Program

(a) Subject to Subsection (b) of this section, each air carrier who has been approved to use a company check pilot shall publish its Company Check Pilot Program, (CCPP) which must include at least;

(1) the duties and responsibilities of a CCP,

(2) qualifications of each person performing any crewmember, or flight operations officer check, on behalf of the company,

(3) reporting relationships of check personnel with, company management and the Director,

(4) the company's basic training and checking philosophy,

(5) administration including at least;

(i) completion of appropriate check reports,

(ii) procedures for withdrawing licence privileges,

(iii) reporting of checks assessed as unsatisfactory,

(iv) record keeping

(b) Notwithstanding Subsection (a) of this section, the Director may cause to be published, an Air Carrier Check Pilot Manual, (ACCPM), forming the basis of all company check pilot functions and procedures.

135.415 Training and Qualification Records

(a) Every air carrier shall, for each person required to receive training under this subpart, establish and maintain a record of;

- (1) a person's name, licence number(where applicable), all ratings, certificates, and endorsements relating to the person's position and function,
- (2) if applicable, the person's medical category and the expiry date of that category,
- (3) the dates on which the person while in the air carrier's employ, successfully completed any training, proficiency or competency check, examination or certification or other qualification required by this subpart.
- (4) a record of attendance of all portions of any course for which a course calendar or syllabus is required to be published under this part,.
- (5) information relating to any failure of a person, while in the air carrier's employ, to successfully complete a training, examination, proficiency or competency check, or to obtain any qualification required by this subpart.
- (6) the type and registration of any aircraft, or flight training device.

(b) An air carrier shall keep any record of training and examination required by this subpart, for the period of time such record gives evidence of the person's currency. In the case of any proficiency or competency check, or a failure to qualify, the record shall be retained for a period of three years.

(c) Any record required by this section shall be in a form approved by the Director and such forms will be used regardless of where the training was completed. Subject to the foregoing, an air carrier may keep its record of training and checking in a computer format provided the information may be easily deciphered.

(d) Except where approved by the Director, any training record required by this section, shall be maintained at the company's main operational base and completed prior to the trainee being assigned to any duty related to that training.

134.417 [Reserved]


135.419 [Reserved]

135.421 Training program approval

(a) Prior to any training program being delivered to a person, every air carrier shall submit each training program or revision thereto to the Director for approval.

(b) The Director may give conditional approval either whole, or in part, to a proposed training program, where he believes an evaluation of the program or part thereof should be undertaken.

(c) Where a conditional approval has been issued, the Director will within the approval period, monitor the program, either whole or in part, or may request additional information or revision prior to giving formal approval



(d) In granting conditional and formal approval of training programs or revisions, the Director considers the training syllabi, aids, devices, methods, and procedures listed in the carrier's program, and assesses the capability of the program to achieve the training objectives for each course.

(e) Whenever the Director finds that revisions are necessary for the continued adequacy of a training program, he will advise the air carrier of the nature of revision required. The carrier shall within 30 days submit to the Director, the required revision for approval. Failure on the carrier's part to comply with this requirement will be cause for the program approval to be withdrawn.

(f) Where a training program approval has been withdrawn, such program will not be given any training credits, until the approval has been re-instated.

135.423 Approval of flight simulators and other training devices

(a) Each aircraft type flight simulator and other training device that is used in an air carrier's training and checking program must;

(1) be specifically approved for;

(i) the certificate holder;

(ii) the type of aircraft to be used, and

(iii) The particular manoeuvre, procedure, or crewmember function involved.

(2) Maintain the performance, functional, and other characteristics that are required for approval.

(3) Be modified to conform with any modification to the aircraft being simulated that results in changes to performance, functional, or other characteristics required for approval.

(4) Be given a daily functional preflight check before being used.

(5) Have a daily discrepancy log kept with each discrepancy entered in that log by the appropriate instructor or check airman at the end of each training or check flight.

(b) Notwithstanding Subsection (a) of this section, the Director may disallow certain training or checking credits where he is of the opinion that the simulator or training device does not adequately represent the carrier's aircraft.

135.425 (Reserved)

135.427 (Reserved)

135.429 Company Indoctrination Training

(a) No air carrier shall use any person pursuant to Section 135.401(b) unless that person has completed an initial course of training in company indoctrination that includes at least the following areas as they relate to the different employee groups:

(1) Company Operations Manual and significant CASRs as related to the company,

(2) Company's operating certificate and operation specifications,

- (3) Company's organization, duties and responsibilities of the management personnel and the reporting relationship of all operational personnel to the respective managers,
- (4) Flight planning and operating procedures,
- (5) Fuelling procedures including procedures for fuelling with passengers aboard and, fuel contamination checks, aircraft grounding and bonding procedures,
- (6) Passenger safety briefings and safe movement of passengers to and from the aircraft,
- (7) Use of the minimum equipment list,
- (8) Company safety and emergency response programs,
- (9) Accident/incident reporting procedures,
- (10) Handling of disabled passengers,
- (11) Operational Control System including flight release, flight watch and flight following,
- (12) Administration of flight documentation
- (13) Sufficient meteorological and air traffic control procedures as would be appropriate to the most advanced aircraft in the air carrier's fleet, except;
 - (i) where the company uses both VFR and IFR pilots, or
 - (ii) Where the company operates both fixed and rotary wing aircraft, this training may be modified to suit the person receiving training and in all cases any examination would be commensurate to the knowledge level required for the licence held by the trainee.

(b) Notwithstanding any requirement in this section, every person who advances to positions within the company that require additional or specialized knowledge, shall be given the additional training required to achieve an acceptable level of knowledge.

135.431 Windshear Training

(a) No air carrier shall assign a person to act as a flight crewmember unless that person has received windshear training in accordance with the following;

- (1) in the case of an aircraft type which does not use a flight simulator in the approved training program,
 - (i) technical training in the recognition, effects and immediate actions appropriate to the type of aircraft flown,
- (2) In the case of turbojet aircraft type which does use a flight simulator in its training program;
 - (i) the technical training required by Subsection (a)(1)(i) of the section, and
 - (ii) sufficient practice in controlling windshear profiles in the aircraft type simulator to ensure each pilot's ability to recognize, announce and control the aircraft from the initial onset of the shear, to the point where the aircraft has regained normal flight parameters.

(b) Windshear training prescribed herein shall be given on an initial and annual basis for each aircraft type on which a person is assigned to act as a flight crewmember.

135.433 Crew Resource Management Training.

(a) No air carrier shall assign a person to act as a crewmember on any aircraft requiring two or more crewmembers, unless that person has received crew resource management training in accordance with the following:

(1) Initial training for all crewmembers shall cover the following subjects:

- (i) attitudes and behaviors;
- (ii) communication skills;
- (iii) problem solving;
- (iv) human factors;
- (v) conflict resolution;
- (vi) decision making;
- (vii) team building and maintenance; and
- (iii) workload management.

(2) Recurrent training as prescribed herein, shall be given every 12 months and cover safety and emergency procedures and where possible, include joint participation of pilots and flight attendants:

- (i) relationship of crew members;
- (ii) review of incidents/accidents of air carriers;
- (iii) presentation and discussion of selected coordinated emergency procedures; and
- (iv) crewmember evacuation drills and debriefing.

135.435 Transportation of Dangerous Goods Training

(a) No air carrier shall permit any person described in Section 135.401(b) including shippers, or any person not employed by the company, to handle, offer or give directions to offer for transport, any dangerous goods unless that person;

- (1) has within the preceding 12 months, received training in accordance with this section; and
- (2) is the holder of a certificate of training; or
- (3) is acting under the direct supervision of a person trained in accordance with this section.

(b) An air carrier's course of training in the transportation of dangerous goods shall include instructions as required by the applicable ICAO technical instructions regarding the compatibility, loading, storage, and handling characteristics of all hazardous materials. The course must ensure that the persons receiving training, will acquire adequate knowledge regarding the proper packaging, marking, labelling, and documentation of dangerous articles and magnetized materials as appropriate to their duties.

(c) An air carrier shall issue to each person who has successfully complete the course in the transportation of dangerous goods, a certificate of training, in card form, which must be displayed any time such person is performing a task relating to dangerous goods.



135.437 Emergency Equipment and Procedures Training

(a) No air carrier shall use any person as a crewmember unless that person has completed initial and recurrent training in accordance with this section. Except where noted the emergency training set forth in this section must be given with respect to each aircraft type, model, and configuration operated by the carrier. In addition, emergency training must be specific to each required crewmember, and each kind of operation conducted, insofar as appropriate. Consideration shall be given to the syllabus for air carriers of varying scope and size.

(b) Emergency training must provide the following:

- (1) Instruction in emergency assignments and procedures, including coordination among crewmembers.
- (2) Individual instruction in the location, function, and operation of emergency equipment including;
 - (i) Equipment used in ditching and evacuation,
 - (ii) First aid equipment and its proper use,
 - (iii) Portable fire extinguishers, with emphasis on type of extinguisher to be used on different classes of fires, and
 - (iv) Emergency exits in the emergency mode with the evacuation slide/raft pack attached (if applicable), with training emphasis on the operation of the exits under adverse conditions.
- (3) Instruction in the handling of emergency situations including;
 - (i) Rapid decompression,
 - (ii) Fire in flight or on the surface, and smoke control procedures with emphasis on electrical equipment and related circuit breakers found in cabin areas including all galleys, service centers, lifts, lavatories and movie screens;
 - (iii) Ditching and other evacuation, including the evacuation of persons and their attendants, if any, who may need the assistance of another person to move expeditiously to an exit in the event of an emergency.
 - (iv) Illness, injury, or other abnormal situations involving passengers or crewmembers to include familiarization with the emergency medical kit; and
 - (v) Hijacking and other unusual situations.
- (4) Review and discussion of previous aircraft accidents and incidents pertaining to actual emergency situations.

(c) Each crewmember must accomplish the following emergency training during the specified training periods, using those items of installed emergency equipment for each type of aeroplane in which he or she is to serve. Where approved by the Director, training required by this Subsection may be accomplished by approved pictorial presentation or demonstration.

- (1) One time emergency drill requirements to be accomplished during initial training. Each crewmember must perform;
 - (i) At least one approved fire fighting drill in which the crewmember combats an actual fire using at least one type of installed hand fire extinguisher or

approved fire extinguisher that is appropriate for the type of fire to be fought; and

(ii) An emergency evacuation drill with each person exiting the aeroplane or approved training device using at least one type of installed emergency evacuation slide. The crewmember may either observe the aeroplane exits being opened in the emergency mode and the associated exit-slide/raft pack being deployed and inflated, or perform the tasks resulting in the accomplishment of these actions.

(2) Additional emergency drill requirements to be accomplished during initial training and once each 24 calendar months during recurrent training. Each crewmember must;

(i) Perform the following emergency drills and operate the following equipment if applicable:

(A) Each type of emergency exit in the normal and emergency modes, including the actions and forces required in the deployment of the emergency evacuation slides;

(B) Each type of installed hand fire extinguisher;

(C) Each type of emergency oxygen system;

(D) Donning, use, and inflation of individual floatation means, if applicable; and

(E) Ditching, if applicable, including but not limited to, as appropriate:

(1) Cockpit preparation and procedures;

(2) Crew coordination;

(3) Passenger briefing and cabin preparation;

(4) Donning and inflation of life preservers;

(5) Use of life lines; and

(6) Boarding of passengers and crew into raft or a slide/raft pack.

(ii) Observe the following drills if applicable:

(A) Removal from the aeroplane (or training device) and inflation of each type of life raft.

(B) Transfer of each type of slide/raft pack from one door to another;

(C) Deployment, inflation, and detachment from the aeroplane (or training device) of each type of slide/raft pack; and

(D) Emergency evacuation including the use of a slide.

(d) Crewmembers who serve in operations above 25,000 feet must receive instruction in the following:

(1) Respiration,

(2) Hypoxia,

(3) Duration of useful consciousness without supplemental oxygen at altitude,

(4) Gas expansion,

(5) Gas bubble formation, and

(6) Physical phenomena and incidents of decompression.

135.439 Aircraft Surface Contamination Training

(a) No air carrier shall assign a person to act as a flight crew member of an aircraft which could within reason, be expected to encounter the effects of surface contamination, unless that person has received within the preceding 12 months;

(1) the initial and recurrent training in safety awareness of the effects of contamination on the critical surfaces of the aircraft including;

- (i) responsibility of the PIC and other operations personnel;
- (ii) regulations related to operations in icing conditions;
- (iii) weather conducive to ice, frost and snow contamination;
- (iv) inspection before flight and removal of contamination;
- (v) in-flight icing recognition; and
- (vi) hazards related to critical surface contamination of ice, frost and snow.

135.441 Category II and Category III Operations Training

(a) No air carrier shall assign a person to act as pilot in command of an aircraft in weather conditions below Category I limits, unless that person has completed the air carrier's initial and recurrent ground and flight training as prescribed in this section. The training prescribed herein must include:

(1) ground training in at least the following subjects:

- (i) legal requirements for take-off and landing in lower than Cat I weather;
- (ii) operational characteristics, capabilities and limitations of Cat II/III:
 - (A) aeroplane systems; and
 - (B) ground based systems.

(iii) resolution of DH/AH;

(iv) visual cues; and

(v) crew duties and co-ordination during normal, abnormal and emergency situations.

(2) flight training required to be accomplished in an aircraft type simulator of the type to be used and shall include at least the following procedures:

- (i) two take-offs, with runway visual range reduced to 600 RVR;
- (ii) one rejected take-off from speed of not less than V1 minus 10 knots, with runway visual range reduced to 600 RVR;
- (iii) a missed approach from the lowest minima, as applicable;
- (iv) an auto landing from one of the approaches or a manual landing, as appropriate, at the maximum crosswind authorized; and
- (v) for category III operations predicated on the use of a fail-passive rollout control system, a manual rollout using visual reference or a combination of visual and instrument references.

135.443 Extended Range Twin-Engine Operations Training

(a) No air carrier shall assign a flight crewmember to act in an ETOPS operation unless such person has completed the air carrier's training/checking program in respect to extended range operations. This training and checking program shall cover the following and be given on an initial and recurrent basis.

(1) introduction to ETOPS regulations/ operational approvals;

(2) routes and airports intended to be used in the Extended Range area of operations; |

- (3) performance:
 - (i) flight planning, and plotting, including all contingencies;
 - (ii) flight performance progress monitoring; and
- (4) procedures:
 - (i) diversion procedures and diversion "decision making". Special initial and recurrent training to prepare flight crews to evaluate probable propulsion and airframe failures must be accomplished;
 - (ii) use of appropriate navigation and communication systems including appropriate flight management devices;
 - (iii) abnormal and emergency procedures to be followed in the event of foreseeable failures for each area of operation, including:
 - (A) procedures for single and multiple equipment failures in flight that would precipitate go/no-go and diversion decisions. If standby sources of electrical power significantly degrade cockpit instrumentation, then approved training that simulates approaches with the standby generator as the sole power source should be conducted during initial and recurrent training;
 - (B) operational restrictions associated with these failures including any applicable MEL considerations;
 - (C) procedures for in-flight restart of the propulsion systems, including APU, if required; and
 - (D) crew incapacitation.
- (5) use of emergency equipment including protective breathing and ditching equipment;
- (6) procedures to be followed in the event that there is a change in conditions at designated en route alternates that would preclude a safe approach and landing;
- (7) understanding and effective use of approved additional or modified equipment required for ETOPS;
- (8) fuel requirements and management; and
- (9) dispatch considerations (MEL, DDG, CDL, weather minima, and flight crew performed maintenance service checks); and

135.445 Aircraft Technical Ground Training

(a) No air carrier shall assign a person to act as a flight crewmember unless that person has received the aircraft technical ground training prescribed by this Section, as applicable to the aircraft type and that person's assigned duties. Such training shall include the following subjects to a depth of comprehension relative to the crewmember's need to know;

- (1) description of all aircraft systems and major components including:
 - (i) design and operation philosophy;
 - (ii) applicable AFM limitations;
 - (iii) normal, abnormal and emergency procedure;
 - (iv) Standard Operating Procedures;
 - (v) MEL, DDG, CDL and supplemental procedures.
- (2) In the case of the pilot in command of a rotorcraft, that training required by CASR if and as applicable;

- (3) aircraft performance;
- (4) flight planning;
- (5) weight and balance procedures, and where the operation involves specialty equipment or procedures:
 - (i) modified or special equipment installed; and
 - (ii) specific procedures relating to such modification or special equipment.

(b) Recurrent technical ground training shall be conducted every 12 months and be in sufficient depth to provide an adequate review of all the subjects contained in Subsection (a) of this section.

(c) All training times must meet the requirements of Appendix N-B, of this Part.

135.447 Aircraft Flight Training

(a) 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:

- (1) an aircraft type flight simulator;
- (2) an aircraft;
- (3) and in part, a synthetic training device (STD); or
- (4) a combination of an aircraft type flight simulator, STD and an aircraft but in any case not less than the minimum times laid down in Appendix N-B, of this Part.

(b) The Director may give certain flight training/checking credits to synthetic training devices where he is of the opinion that such device is:

- (1) a true mock-up of the actual aircraft and is accurate in layout, equipment and design;
- (2) is sufficiently functional to physically position switches and controls to their appropriate position; and
- (3) 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.

(c) 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:

- (1) low level windshear;
- (2) ETOPSI
- (3) CAT II/III; or
- (4) other special operations, for which the authority requires additional training.

(d) Where the manoeuvres and procedures required by Subsection (c) of this section, are to be accomplished in an aircraft, they shall include as appropriate to the aircraft type and trainee pilot and, consistent with safety;

- (1) all pre-flight activity as laid down in the COM and appropriate to flight training;
- (2) use of aircraft checklist system, including interior and exterior checks;
- (3) taxiing;
- (4) aspects of flight and cabin crew co-operation, including briefing, and co-ordination of duties;
- (5) 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.
- (6) normal manoeuvres during climb, descent and level flight at low and high altitudes;
- (7) 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;
- (8) steep turns, onset of mach buffet, or other flight characteristic as applicable to the aircraft type;
- (9) 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
- (10) other specialized aircraft equipment where applicable; and
- (11) 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
- (12) in the case of a helicopter, the training shall include:
 - (i) practice in carriage of external loads, (as applicable);
 - (ii) precision hovering into and out of ground effect, including vertical reference maneuvering;
 - (iii) autorotations, anti-torque and other malfunctions specific to helicopters; and
 - (iv) training in any other procedure or specialized operations as deemed appropriate to the Director.

(e) Where the manoeuvres and procedures required by Subsection (c) of this section, 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:

- (1) All the maneuvers and procedures prescribed by Subsection (d) of this section, 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 Subsection (f) of this section.

(f) In addition to the syllabus requirements prescribed by Subsection (b) of section 403, of this subpart, where an air carrier is approved to conduct flight training, in an aircraft type simulator, the air carrier shall publish a simulator training program:

- (1) 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.
- (2) that prescribes the specific manoeuvres and procedures to be presented during each session;
- (3) that shows a logical progression in the complexity of the exercises;
- (4) that ensures, more demanding exercises receive adequate repetitions to achieve a high level of skill;
- (5) that gives the instructor the freedom to modify a lesson in order to make that session more beneficial to the trainee pilot; and
- (6) is approved by the director.

(g) Every flight or simulator instructor who gives instruction to a person shall;

- (1) 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 understand the training scheduled for that day.
- (2) 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;
- (3) 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
- (4) 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.

135.449 Differences training:

(a) No air carrier shall use any person pursuant to Section 135.401(b) unless that person has completed an initial course of training and differences training consisting of at least the following as applicable to their assigned duties and responsibilities:

- (1) Instruction in each subject required for initial and recurrent ground training where differences in the carrier's aircraft fleet occur; and
- (2) instruction in each maneuver or procedure required for initial and recurrent flight training, where differences in the carrier's aircraft fleet occur.

(b) Differences training for all variations of a particular type aircraft may be incorporated into the initial, and recurrent ground and flight training programs for the aircraft type subject to differences or, may be published as a separate syllabus.

135.451 Upgrade Training

(a) Where a flight crewmember has been previously trained and certified to act as a second-in-command of an aircraft, no air carrier shall assign that person to act as the pilot-in-command and that person shall not act as pilot-in-command of that aircraft unless:

- (1) that person has completed the initial technical ground and flight training prescribed in Sections 135.445, 135.447 and is otherwise qualified in accordance with this Subpart, to act as a pilot-in-command; or
- (2) has undergone the upgrade training prescribed in Subsection (b) of this section.

(b) Upgrade training and checking for a pilot who is qualified as a second-in-command on that aeroplane type shall include the following:

- (1) training as pilot in command in all the areas of aeroplane handling and operation as prescribed in Section 135.447;
- (2) pilot in command decision making;
- (3) any special operations training required specifically for a PIC;
- (4) an initial pilot proficiency check for a PIC; and
- (5) line indoctrination training and check as required by this subpart.

(c) Upgrade training shall not qualify a SIC to act as PIC if, the flight crewmember's PPC as second-in-command, has been expired for more than 24 months.

135.453 Line Indoctrination Training for Flight Crew Members

(a) No air carrier shall assign a person to act as a flight crewmember of and aircraft that has a maximum certified take-off weight of more than 12,500 pounds or a turbojet unless, that person has undergone or is undergoing, line indoctrination as prescribed herein, while under the supervision of a flight instructor or CCP qualified on that type:

- (1) Line indoctrination shall be conducted over parts of the company's route structure, or in the case of a non scheduled air transportation service, over routes within the operational areas which are typical to the air carrier;
- (2) Line indoctrination shall cover the following areas to ensure each flight crewmember has been adequately trained to perform their assigned duties and is aware of the company's policies with respect to;
 - (i) crew management and discipline;

- (ii) responsibilities of the PIC and other flight crew members; and
 - (iii) responsibilities of the cabin crew;
 - (iv) MEL policy and procedures;
 - (v) C of A and other documentation;
 - (vi) deferred defects;
 - (vii) dispatch and maintenance release;
 - (viii) manuals and logbook;
 - (ix) Flight Data Recorder and Cockpit Voice Recorder;
 - (x) emergency exits-number, access, lighting and marking;
 - (xi) fire extinguishers;
 - (xii) crash axe;
 - (xiii) oxygen and first aid equipment, and survival equipment;
 - (xiv) company fuel policy.
 - (xv) fuelling procedures;
 - (xvi) load security;
 - (xvii) ground equipment and handling;
 - (xviii) pre-flight safety and crew briefings;
 - (xix) departure and climb procedures;
 - (xx) fuel management and checks;
 - (xxi) approach procedures;
 - (xxii) landing and taxiing procedures; and
 - (xxiii) flight logs and defect recording
- (3) Special considerations such as significant terrain, noise abatement, unique SAR requirements or any situation which presents itself during line indoctrination training which would require a crew response.

(b) During line indoctrination, a flight crewmember shall be given the following minimum operating experience, while performing the duties appropriate to their crew station. sectors/hours acquired during proving or ferry flights may be counted towards this requirement. The required number of flying hours and sectors apply to both PIC and SIC are;

- (1) Reciprocating engines - 15 flight hours.
After completing the 4 flight hours, the remaining time may be reduced by 1 hour for each additional sector flown to a maximum reduction of 7.5 flight hours;
- (2) Turbo propeller engines - 20 flight hours.
After completing the 5 flight hours, the remaining time may be reduced by 1 hour for each additional sector flown to a maximum reduction of 10 flight hours;
- (3) Turbojet engines - 25 flight hours.
No reduction in time requirement is permitted.

(c) A sector is considered to be any flight which has a take-off and landing at different airports which are not less than 50 nautical miles apart.

135.455 Recency of Experience Training

(a) Pursuant to Section 135.389(a)(3) of subpart M, any pilot who has not completed 3 takeoffs and landings within the previous 90 days shall regain competency by undergoing the following recency of experience training:

- (1) conduct three takeoffs and landings as the pilot flying in an aircraft which is not carrying passengers; and
- (2) where the period of time since the last flight in that type of aircraft, that the pilot acted as the pilot flying is greater than 120 days:
 - (i) receive a briefing on changes that have occurred to the aircraft or its operation since the last flight;
 - (ii) complete three take-off and landings in an aircraft not carrying passengers; and
- (3) where the aircraft type is a turbojet or has a MCTOW of greater than 12500 pounds, the take-off and landings shall be done under the supervision of a training pilot or CCP qualified on that type, and one take-off and landing shall be practiced with the simulated failure of the critical engine.

(b) Where the air carrier has been given authority to use a flight simulator for the type of aircraft on which recency training is required, and that simulator has been given landing credits, the take-off and landing requirement of this section may be satisfied in that simulator.

135.457 Flight Attendant Ground Training

(a) No air carrier shall assign a person to act and no person shall act as a flight attendant on an aircraft that is required to carry flight attendants, unless that person has completed the air carriers ground training for flight attendants prescribed by this section. Initial and recurrent ground training must include instruction in at least the following:

- (1) General subjects:
 - (i) The authority of the pilot in command, and succession of command;
 - (ii) Relevant Safety and Security Regulations;
 - (iii) Passenger handling, including under age children;
 - (iv) Approved crew resource management training;
 - (v) Company policy manuals relating to the duties of a flight attendant;
 - (vi) Customs and immigrations procedures;
 - (vii) Passenger briefing; and
 - (viii) Passenger cabin preparation and securing.
- (2) For each aeroplane type:
 - (i) A general description of the aircraft emphasizing physical characteristics that may have a bearing on ditching, evacuation, and in-flight emergency procedures and on other related duties;
 - (ii) The use of both the public address system and the means of communicating with other flight crewmembers; and
 - (iii) Proper use of electrical galley equipment and the controls for cabin heat and ventilation.
- (3) For emergency or security equipment and procedures;

- (i) location and operation of all aircraft exits, including normal, alternate and emergency modes of operation;
 - (ii) location and use of all emergency equipment on board each aircraft;
 - (iii) normal and alternate means of communication and communication procedures for normal, emergency and security situations;
 - (iv) alternate duties in the event of the incapacitation of other crew members;
 - (v) passenger emergency briefings and aural commands;
 - (vi) armed intervention or unruly passengers;
 - (vii) cabin and passenger preparation for emergency landing, ditching and evacuation; and
 - (viii) medical emergencies on board including administering oxygen.
- (4) For practical training:
- (i) use of fire extinguishers;
 - (ii) use of oxygen walk around equipment;
 - (iii) use of all emergency exits;
 - (iv) passenger preparation and evacuation, and
 - (v) use of any other life saving equipment on board a specific aircraft including the onboard medical kit.

(b) Initial and recurrent ground training for flight attendants must include a competence check to determine ability to perform assigned duties and responsibilities.

135.459 Flight Attendant Operational Training

(a) No air carrier shall assign a person to act and no person shall act as a flight attendant on an aircraft that is required to carry flight attendants, unless that person has completed the air carrier's flight attendant operational training prescribed by this section:

(1) A flight attendant must for a number of hours acceptable to the DGAC perform the assigned duties of a flight attendant on board an aircraft, while under the supervision of a flight attendant supervisor qualified on that aircraft type.

(b) Flight attendant operational training is not required for a flight attendant who has previously acquired such experience on any passenger-carrying aeroplane of the same group, if;

- (1) that person has received with respect to that aircraft, the initial ground training as prescribed by section 135.457 (a)(2) and (3) of this subpart,
- (2) that person has for that type of aeroplane, successfully completed the competency check outlined in this Subpart.

(c) Flight attendant operational training prescribed herein may be completed in a full-scale (except for length) cabin training device of the type aeroplane in which they are to serve, provided;

- (1) the cabin training device has been approved by the Director, and
- (2) has successfully completed a competency check outlined in this Subpart.

135.461 Flight Operations Officers Training

(a) No air carrier shall assign a person to act and no person shall act as a flight operations officer unless that person has successfully completed the initial and recurrent ground and flight observation training prescribed in this section.

(b) Initial and recurrent ground training for flight operations officers must include instruction in at least the following:

(1) General subjects:

- (i) Civil Aviation Safety regulations as applicable,
- (ii) Company Operations Manual (COM) with emphasis placed on;
 - (A) duties and responsibilities of an FOO,
 - (B) company operating specifications,
 - (C) principles of operational control over a flight,
 - (D) principle of co-authority dispatch, and flight release,
 - (E) flight crew briefing procedures,
 - (F) MEL procedures
 - (G) maintenance release procedures,
 - (H) company's flight watch/ flight following systems,
 - (I) FOO hand-off procedures,
 - (J) company operational weather minima,
 - (K) company operational flight plans,
 - (L) weight and balance, load control procedures,
 - (M) fuelling policy,
 - (N) flight and duty time limitations,
 - (O) communication procedures for normal, emergency and security situations,
 - (P) action in the event of a missing aircraft, or accident
 - (Q) company's emergency response plan, and
 - (R) any other information contained in the COM which would be considered significant to a FOO.
- (iii) Meteorology, including various types of meteorological information and forecasts, interpretation of weather data (including forecasting of enroute and terminal temperatures and other weather conditions), frontal systems, wind conditions, and use of actual and prognostic weather charts for various altitudes;
- (iv) The NOTAM system;
- (v) Navigational aids and publications;
- (vi) Characteristics of appropriate airports;
- (vii) Prevailing weather phenomena and the available sources of weather information;
- (viii) Air traffic control and instrument approach procedures;
- (ix) Approved dispatcher resource management (DRM) initial training.

(2) For each aircraft:

- (i) A general description of the aeroplane emphasizing operating and performance characteristics, navigation equipment, instrument approach and

communication equipment, emergency equipment and procedures, and other subjects having a bearing on flight operation officer duties and responsibilities;

(ii) Weight and balance computations;

(iii) Basic aeroplane take-off, enroute and landing performance

(iv) Flight planning including track selection, flight time analysis, and fuel requirements; and

(v) Emergency procedures.

(c) Prior to advancing to flight observation training, each FOO who has completed initial and recurrent ground training prescribed herein shall undergo a competency check conducted by a FOO supervisor. This check must be such that will confirm the trainee's knowledge in the subjects set forth in Paragraph (a) of this section, and the ability to satisfactorily accomplish the duties of a FOO.

(d) Each FOO initial and recurrent training course must include at least one complete flight or series of flights along a typical route or area of operation, in each aircraft that person is assigned to act as a FOO. In aircraft where there is no flight deck observer seat, a seat in the forward cabin which gives the best view of the cockpit, and a head set shall be assigned to the observing FOO.

(e) Notwithstanding subsection (a) of this section, a FOO may perform the duties of an FOO provided;

(1) such duties are under the direct supervision of a FOO qualified under this part, and

(2) such duties are for the purpose of providing on-the-job training to a FOO trainee

135.463 Aircraft Servicing and Ground Handling Training

(a) No air carrier shall assign a person to render any ground handling or servicing of any aircraft unless such person has completed the training prescribed in this section, except those duties performed by a certified aircraft maintenance engineer. Training in aircraft servicing and ground handling shall include:

(1) fuelling procedures:

(i) types of fuel, oil and fluids use in the aircraft,

(ii) correct fuelling procedures,

(iii) procedures for checking fuel, oil and fluids and proper securing of caps.

(2) use of tow bars and maximum nose wheel deflection when towing,

(3) use of the parking brake, and emergency air braking system,

(4) installation of protective covers on the aircraft,

(5) aircraft handling procedures,

(i) marshalling procedures,

(ii) standard hand signals,

(6) opening and closing aircraft external doors,

(7) safety precautions to be taken around aircraft, and

(8) noise and flicker vertigo

135.465 [Reserved]

135.467 [Reserved]

135.469 Pilot Proficiency Checks

(a) Initial and recurrent pilot proficiency checks shall be conducted in accordance with checking standards prescribed in Schedules I, II or III of Appendix N-A, to this Part,

(FLIGHT CHECKING STANDARDS), as appropriate to the aircraft type and crewmember.

(b) An air carrier shall publish in its training manual the competency check standards for single-engine aircraft.

135.471 Validity Periods for Proficiency and Competency

(a) No air carrier shall assign a person to act and no person shall act, as;

(1) a flight crew member, (in the appropriate crew position)

(2) a flight attendant, or,

(3) a flight operations officer,

on any type of aircraft unless, in addition to completing the annual recurrent training required by this subsection, that person has successfully completed a Pilot Proficiency Check, (PPC), Pilot Competency Check, (PCC) or Competency Check, (CC), the validity period of which has not expired.

Validity periods for a PPC, PCC, or CC, are as prescribed herein;

(1) In the case of a multi-engine aircraft with a MCTOW of greater than 12500 pounds, or a turbojet aircraft, a PPC shall be valid to;

(i) for a PIC, the first day of the seventh (7) month following the month the PPC was taken, and

(ii) for a SIC, the first day of the thirteenth (13) month following the month in which the PPC was taken,

(2) In the case of a multi-engine aircraft with a MCTOW of 12500 pounds or less, except for turbojet aircraft, a PPC shall be valid to;

(i) for a PIC, the first day of the thirteenth (13) month following the month the PPC was taken, and

(ii) for a SIC, the first day of the twenty fifth (25) month following the month in which the PPC was taken.

(3) In the case of a single engine aeroplane, a Pilot Competency Check, (PCC), shall be valid to the first day of the thirteenth (13) month following the month in which the PCC was taken.

(4) In the case of a single engine helicopter, a pilot proficiency check, PPC shall be valid to the first day of the thirteenth (13) month, from the month the PPC was taken.

(5) In the case of a flight attendant, a competency check shall be valid to the first day of the twenty fifth (25) month following the month in which the CC was taken.

(6) In the case of a FOO, a competency check shall be valid to the first of the thirteenth month, following the month in which the CC was taken.

(b) An approved company check pilot who has been delegated the authority to perform flight checks on that aircraft type, or a DGAC inspector shall conduct any pilot proficiency check required by this Subpart. The Director or a person acceptable to him, shall conduct all other checks required by this Subpart. An air carrier shall submit to the Director for approval, a list of proposed examiners, including their qualifications relevant to their position as examiners.

(c) For the purposes of completing any check required by this subpart, where an aircraft type simulator has been approved for training;

(1) in the cases of a PPC required by Subsections (a)(1) and (2) of this section, the same credits given the simulator for training purposes shall apply to the PPC.

(2) In the case of the CC required by Subsection (a)(5) of this section, the same training credits given to that cabin training device, shall apply to the CC.

(d) Where any flight simulator, or other training device approved for training and checking, does not have all the training and checking credits needed to complete the entire check, the portions of such check not approved to be completed in a simulator, must be carried out in that type of aircraft, as appropriate.

(e) Where a pilot proficiency check, a competency check or annual training is renewed within the last 90 days of its validity period, such check or training is deemed to have taken place on the last day of the validity period.

(f) The Director may extend the validity period of a pilot proficiency check, a competency check or annual training by up to 60 days where the Director is of the opinion that aviation safety is not likely to be affected.

(g) Where the validity period of a pilot proficiency check, a competency check or annual training has been expired for 24 months or more, the person shall requalify by meeting all initial training requirements relating to that aircraft.

135.473 Line Checks

(a) No air carrier shall assign a person to act, and no person shall act, as pilot-in-command of a multi-engine aircraft which has a MCTOW of greater than 12500 pounds, or is a turbojet aircraft unless,

(1) within the preceding twelve (12) months, that person has passed a line check as prescribed in Subsection (b) of this section, in the type of aircraft he is to fly,

(2) the aircraft is not authorized in the carrier's operations specifications for the carriage of passengers.

(b) A line check required by this section shall, be conducted by a company check pilot who has been delegated the authority to perform flight checks on that aircraft type.

(c) A line check required by this section shall be administered to each PIC required to undergo a line check and shall observe such person on at least one flight segment, accomplishing his/her normal duties in the following phases of flight;

- (1) Pre-flight procedures and duties as laid down in the COM
- (2) Aircraft, acceptance and pre-flight checks including safety briefings
- (3) take-off and departure including SID procedures and initial climb,
- (4) enroute procedures, including fuel and progress monitoring,
- (5) terminal procedures for arrival, approach and landing, and
- (6) post flight duties, including log and defect reporting.

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SUBPART O – FLIGHT AND DUTY TIME LIMITATIONS

135.491 Applicability

This subpart prescribes the rules governing flight and duty time limitations, required rest periods and days off for pilots, flight attendants and flight operation officers.

135.493 Flight and Duty Time Monitoring System

(a) Every air carrier shall establish a system that monitors the flight time, flight duty time, and rest periods for each person specified in Section 491 of this Subpart. The details of that system must be published in the carrier's COM.

(b) Where a person becomes aware that an air carrier has assigned them to act as a crew member and that assignment will result in their maximum flight, or flight duty time being exceeded, that crewmember shall notify the carrier of the projected overrun.

135.495 Flight Time Limitations for Flight Crewmembers

(a) Subject to Subsection (b) of this section, no air carrier shall assign a person to act as a flight crewmember and no person shall accept such assignment, if that flight crewmember's total flight time in all flights conducted by him or her will exceed;

- (1) 1050 hours in any 365 consecutive days,
- (2) 300 hours in any 90 consecutive days,
- (3) 100 hours in any 30 consecutive days,
- (4) where the flight is conducted on an aeroplane with a MCTOW of greater than 1500 pounds, 35 hours in any 7 consecutive days,
- (5) where the flight is conducted on aeroplanes having a MCTOW of 12500 pounds or less, or any helicopter, 40 hours in any 7 consecutive days, and
- (6) daily flight and duty time limitations as laid down in CASR 135.497 Schedule 1.

(b) An air carrier may assign a person to act as a flight crewmember and a Person may accept such assignment, where the maximum flight time limitations exceed those times specified in Subsection (a), (2), (3) and (4) of this section if,

- (1) the air carrier is so approved in its operations specifications,
- (2) the increased flight time limitations are not more than an additional 25 percent of the maximums prescribed in Subsections, (a), (2), (3) and (4) of this section,
- (3) the flight crewmember to be assigned, signs a letter stating their agreement, to the increased flight times,
- (4) the maximum flight duty period does not exceed, 12 hours in any 24 consecutive hours for flights conducted by day, or 10 hours in any 24 consecutive hours, where more than one third of the duty period is conducted during the hours of darkness,
- (5) the maximum flight time must not exceed 8 hours in any 24 consecutive hours, for aeroplanes having a MCTOW of greater than 12500 pounds and 10 hours in any 24 consecutive hours, for aircraft with a MCTOW of 12500 pounds or less, and
- (6) such flights are not for the purpose of conducting a commuter air service.

(b) For the purposes of calculating any flight times, or flight duty time limitation, all limitations shall be deemed to have returned to zero, if;

(1) the flight crewmember has received, while in the employ of the air carrier, not less than 30 consecutive days off, not including days off earned, annual, or sick leave.

135.497 Flight and Duty Time Limitations

(a) Subject to Subsections (c), (d) and (e) of this section, no air carrier shall assign a flight crewmember to a flight duty period, and no flight crewmember shall accept such assignment, if that flight duty period, is scheduled to exceed the maximum flight duty times prescribed herein. Such duty periods are to be calculate in periods of 24 consecutive hours:

(b) schedule 1:

Min. Flight Crew	Additional Flight Crew	Max. Flight and Duty times		Subject to Subsections/ Remarks		
		Duty	Flight	(c)	(d)	(e)
One	Nil	12 Hrs	6 Hrs	No	No	No
Two	Nil	12 Hrs	9 Hrs	No	No	No
Two	One	14 Hrs	10 Hrs	Yes	No	Yes
Two	One	16 Hrs	11 Hrs	No	Yes	Yes
One	Nil	12 Hrs	6 Hrs	Helicopter		
Two	Nil	12 Hrs	7 Hrs	Helicopter		
One /Two	Nil	12 Hrs	5 Hrs	Helicopter engaged in external load or multi-landing operations.		

(c) Where the air carrier elects to carry an additional flight crewmember for the purpose of extending a flight duty period to a maximum of 14 duty hours, it shall provide a flight relief facility in the form of a seat. Such seat must be fully reclining, with adequate leg room for maximum comfort, equipped with a call device, seat restraint system and be screened off from other passenger seats. The flight relief facility seat must also be located where distractions or noise can controlled to a minimum. Flight relief shall be divided in as much as possible into three segments of equal length but shall in any event ensure the maximum flight deck time for any one pilot is 6 hours.

(d) Where the air carrier elects to carry an additional flight crewmember for the purpose of extending a flight duty period to a maximum of 16 duty hours, it shall provide a flight relief facility in the form of a bunk. Such flight relief facility must meet all the requirements of the seat described in Subsection (c) of this section except, it must permit the flight crewmember to rest in the fully prone position. Flight relief shall be divided in as much as possible into three segments of equal length but shall in any event ensure the maximum flight deck time or any one pilot is 6 hours.

(e) Where an air carrier has assigned a flight crewmember to any extended flight duty period, it shall provide that flight crewmember with extended crew rest periods. These rest

period extensions, of not less than two hours, shall be added to the minimum required rest periods, both preceding and following that extended flight duty period.

(f) Notwithstanding the limitations prescribed in this section, where unforeseen operational circumstances occur, a flight duty period may be extended by up to 3 consecutive hours provided that:

- (1) the crew rest following the time overrun shall be extended by at least the amount of time equivalent to the overrun,
- (2) the flight crewmembers involved are of the opinion that flight safety will not be adversely effected by the extended duty, and
- (3) the PIC submits a full report on the delays or circumstances surrounding the extension.

135.499 Flight Crewmembers on Reserve

(a) Where a flight crewmember is required to standby on reserve status, that crewmember must be given an opportunity to received not less than 8 consecutive hours of prone rest within each 24 hour reserve period, and;

- (1) during which rest period there has been no contact from the carrier, and
- (2) the flight crewmember has been given not less than 24 hours notice as to when that rest period has been scheduled.

135.501 [Reserved]

135.503 Crew Rest Period

Except as provided in this Subpart for an increased crew rest period, at the conclusion of each duty period, an air carrier shall provide such crewmember with a crew rest;

- (1) that allows for not less than 8 hours of prone rest,
- (2) that meets all the requirements of a crew rest period, as defined in Section 135.01 "Rest Period".

135.505 Required Day Off

(a) An air carrier shall provide each crewmember and each flight operations officer with not less than one day off as defined by section 135.01. "Required Day Off" in each 7 consecutive days, except:

- (1) where a person is stationed for an extended period of time at a location other than that person's domicile, and where that person is in agreement, such station may be considered, for the purposes of a day off, that person's domicile.
- (2) where an air carrier provides more than the minimum of one day off in any 7 consecutive day period, the requirement to provide such day off at that person's domicile, does not apply. All other provisions of Section 135.01, "Required Day Off", are applicable.

135.507 [Reserved]

135.509 [Reserved]

135.511 [Reserved]

135.513 Flight Attendant duty period limitations

(a) An air carrier may assign a Flight Attendant to a duty period only in accordance with the duty time limitations prescribed herein.

(1) Subject to Subsection (a)(5) of this section, no air carrier may assign a Flight Attendant to a scheduled duty period of more than 14 hours.

(2) No air carrier may assign a Flight Attendant any duty period unless the Flight Attendant has had at least the minimum rest required by section 135.01, "Rest Period".

(3) An air carrier shall provide each Flight Attendant at least one day off as defined by Section 135.01, "Required Day Off", during any 7 consecutive day period.

(4) A Flight Attendant is not considered to be scheduled for duty in excess of duty period limitations if,

(i) the flights to which the Flight Attendant is assigned are scheduled and normally terminate within the limitations,

(ii) due to unforeseen circumstances a delay at the originating station, results in a projected late arrival at the destination airport, and

(iii) The provisions of Subsection 497(f) are adhered to

(5) A Flight Attendant may be assigned to duty on a flight which is scheduled in accordance with Section 497 of this subpart, provided:

(i) the minimum required cabin crew is increased by at least one additional flight attendant and a flight relief seat as defined in Section 497(c) of this subpart is provided as a flight relief facility,

(ii) the in-charge flight attendant shall ensure the actual duty time is shared approximately equally by each flight attendant.

(iii) All flight attendants assigned to duty, shall be considered to on active duty during take-off, landing and all ground operations.

(iv) The increased crew rest periods as laid down in Section 497(e) of the subpart shall apply to the each flight attendant assigned to an extended duty period.

135.515 [Reserved]

135.517 [Reserved]

135.519 Maximum Duty Period for a Flight Operations Officer

(a) Except in cases where circumstances or emergency conditions beyond the control of the air carrier or otherwise required for emergency conditions:

(1) No operator may schedule a flight operations officer for more than 10 consecutive hours of duty;

(2) If a flight operations officer is scheduled for more than 10 hours of duty in 24 consecutive hours, the operator shall provide him a rest period of at least eight hours at or before the end of 10 hours of duty.

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SUBPART P - FLIGHT OPERATIONS

135.531 Applicability

This subpart prescribes the rule governing flight operations of all air transportation services conducted under this Part.

135.533 [Reserved]

135.535 [Reserved]

135.537 [Reserved]

135.539 Operations Notices

(a) An air carrier shall establish a system for the timely publication and issuance of operations notices, for the purpose of ensuring the operational people have the latest relevant information available to them. Such system must ensure the operations notices are of a design, that makes them readily identifiable and have;

- (1) a numbering system, date of issuance and address group,
- (2) status designations, such as "WARNING", "CAUTION," "INFORMATION", as appropriate,
- (3) a means for each crewmember to acknowledge receipt of the information, and
- (4) a means of rescinding the notice when it becomes no longer needed. Where the notice introduces a permanent change, or new policy or procedure, that procedure should be incorporated into the appropriate section of the COM and the notice rescinded.

(b) An operations notice which alerts to a change in the use, or service deficiency of any navigation aid, airport, air traffic control procedure, regulation, or known hazards to flight, including icing and other potentially hazardous meteorological conditions must;

- (1) be sent to by the quickest means possible to all air carrier flight crewmembers and dispatch centers, and
- (2) to the agency who is responsible for such facility, or who may be in a position to alert other aircraft as to a potential hazard.

135.541 Crewmember Duties during Flight Time

(a) No air carrier shall assign, and no crewmember shall perform, any duties during a flight time, except those duties that relate to the safe and efficient operation of the aircraft, or, passenger safety. Nothing in this section however, should be taken to mean that certain passenger services cannot be provided, where the provision of such services, do not interfere with the official safety function of a crewmember.

(b) No pilot in command shall permit, during critical phases of flight, any activity in the cockpit that could distract a flight crewmember from, or interfere with in the proper and diligent performance of his or her duties.

(c) For the purposes of this section, a critical phase of flight is defined as any period of flight time including ground operations where it could reasonably be expected that the safe operation of the aircraft, require full attention and or participation of all flight crewmembers.

135.543 Flight Crewmembers at the Controls

(a) Except as provided in Subsection (b) of this section, each flight crewmember on flight deck duty, shall remain in his or her seat, with their seat belt and shoulder harness fastened;

- (1) while the aircraft is taking off or landing, and
- (2) any time the PIC has turned on the fasten seat belt sign on, due to turbulence or other safety consideration.

(b) A required flight crewmember may leave the assigned seat;

- (1) If the crewmember's absence is necessary for the performance of duties in connection with the operation of the aircraft;
- (2) If the crewmember's absence is in connection with physiological needs, and
- (3) Where the aircraft is cruising above flight level 250, the remaining pilot must remain in his or her seat with their seat belt and shoulder harness fastened and wearing an oxygen mask, supplying undiluted oxygen.

135.545 Manipulation of controls

(a) No pilot in command may allow any person to manipulate the controls of an aircraft during flight nor may any person manipulate the controls during flight unless that person is,

- (1) a qualified pilot employed by the air carrier
- (2) an authorized representative of the Director who has the permission of the pilot in command, is qualified in the aircraft, and is checking flight operations; or
- (3) Any pilot who is qualified in accordance with Subparts M and N of this Part and is named on the flight release, as a flight crewmember assigned to that flight.

135.547 Admission to the Cockpit

(a) No person may admit any person to the cockpit or occupy a non-required pilot seat of an aircraft carrying more than 9 passengers unless that person is;

- (1) a crewmember;
- (2) a DGAC inspector, or an authorized representative of the Director, who is performing official duties;
- (3) An employee of the Indonesian government, a certificate holder, or an aeronautical enterprise who has the permission of the pilot in command and whose duties are such that admission to the cockpit is necessary or advantageous for safe operations; or
- (4) Any person who has the permission of the pilot in command and is specifically authorized by the certificate holder management and by the Director.

(b) Subsection (a) of this section does not limit the emergency authority of the pilot in command to exclude any person from the cockpit in the interests of safety.

employees of other company departments that are not directly related to flight operations, unless they are eligible under Paragraph (a)(4) of this section.

135.549 Cockpit Check Procedures

(a) Each air carrier shall provide an approved cockpit check procedure for each type of aircraft operated.

(b) The approved check procedures must ensure all the aircraft manufactures recommended checks and procedures are completed as appropriate, prior to, push back, engine start, taxi, take-off, cruise, descent and approach, and landing. Such checks and procedures must address as applicable, the normal, abnormal, emergency and supplementary modes of operation of all aircraft systems and components.

(c) Approved check procedures must include a checklist that is readily available to the Pilots and is used, either as;

- (1) a read and do type of checklist,
- (2) a read and confirm the actions of an approved scan flow, or
- (3) a combination of such check procedures.

135.551 DGAC Inspector Official Credentials

Subject to Subsection (b) of Section 547, where a DGAC inspector presents his official inspector credentials to the pilot in command of an aircraft, the inspector must be given free and unrestricted access to the cockpit whether or not that aircraft is in flight.

135.553 Flying Equipment

(a) The pilot in command shall ensure that appropriate aeronautical charts containing adequate information concerning navigation aids and instrument approach procedures are aboard the aircraft for each flight.

(b) Each crewmember shall, on each flight, have readily available for his use a flashlight that is in good working order.

135.555 Restriction or Suspension of Operation

(a) When an operator or pilot in command knows of conditions, including airport and runway conditions, that are a hazard to safe operations, the operator or pilot in command, as the case may be, shall restrict or suspend operations until those conditions are corrected.

(b) No pilot in command shall continue toward an airport of intended landing under the conditions set forth in paragraph (a) of this section, unless;

- (1) in the opinion of the pilot in command the conditions that are a hazard to safety may be reasonably expected to be corrected by the estimated time of arrival or,
- (2) there is with respect to that flight, an alternate airport to which the aircraft can divert to from any point along the route, maintaining required reserve and contingency fuel at all times, or

- (3) there is no safer alternative available to the PIC, in such case the pilot in command is considered to be acting under the force of an emergency.

135.557 Compliance with Approved Routes and Limitations:

No air carrier shall assign and no person shall operate an aircraft in IFR flight unless such flight is along a designated airway or company approved route and in accordance with any restriction or limitation associated with that route.

135.559 Declaration and Action in an Emergency

(a) In an emergency situation that requires immediate decision and action, the pilot in command may take any action that he considers necessary for the safety of the aircraft and passengers. In such a case he may deviate from prescribed operations procedures and methods, weather minimums, and the CASRs, to the extent required to avoid imminent danger or, in the interests of safety.

(b) Where the Flight Operations Officer or Director of Operations becomes aware of any emergency situation that could pose a hazard to a flight in progress, they shall advise the pilot in command of such emergency, by the quickest means available. Furthermore, they shall;

- (1) remain available to the PIC of that flight on a continuous basis until;
 - (i) the threat of such emergency has passed,
 - (ii) they have ascertained the decision of the pilot in command, acknowledged that decision, and determined they assistance is no longer required, or
 - (iii) have handed off the flight to another competent person who is in a better position to be of assistance.
- (2) relay required messages through third parties as necessary to communicate with the flight.
- (3) declare an emergency and follow missing aircraft procedures as appropriate.

(c) Whenever a pilot in command or Flight Operations Officer or Director of Operations exercises emergency authority, he shall declare an emergency and keep the appropriate ATC facility and dispatch centers fully informed of the progress of the flight. The person declaring the emergency shall send a written report of any deviation to the operator's operations manager and the Director. Where a Flight Operations Officer or Director of Operations declared the emergency, they shall send a report within 10 days after the date of the emergency, and a pilot in command shall send his report within 10 days after returning to his home base.

135.561 Reporting Potential Hazards

(a) Where a meteorological condition, an irregularity in a ground or navigational facility, or other potentially hazardous situation is encountered in flight, the knowledge of which he considers essential to the safety of other flights, the pilot in command shall notify an appropriate ground station as soon as practicable.

(b) The ground radio station that is notified under Subsection (a) of this section shall report the information to the agency directly responsible for operating the facility.

135.563 Reporting Mechanical Defects or Irregularities

The pilot in command shall ensure that all mechanical defects and irregularities occurring during flight time are entered in the maintenance log of the aircraft at the end of that flight time. Before each flight the pilot in command shall ascertain the status of each defect or irregularity entered in the log at the end of the preceding flight.

135.565 Engine Inoperative Landing Report

(a) Except as provided in Subsection (b) of this section, whenever an engine of an aircraft fails, or intentionally shut down to prevent possible damage, the pilot in command shall land at the nearest suitable airport.

(b) The pilot in command shall report the failure or shut down of the engine to the appropriate ground radio station as soon as practicable and shall keep that station fully informed of the progress of the flight.

(c) Where the pilot in command elects to land at an airport other than the nearest suitable airport, he shall submit a written report to his director of operations stating his reasons for not proceeding to the nearest suitable aerodrome. The director of operations shall, within 10 days after the pilot returns to his home base, send a copy of this report with his comments to the DGAC.

135.567 Instrument Approach Procedures

No person may make an instrument approach at an airport except in accordance with the instrument approach procedures set forth in the certificate holder's operations specifications.

135.569 to 577 (Reserved)

135.579 Minimum Altitudes for Use of an Autopilot

(a) Except as provided in Paragraphs (b) and (c) of this section, no person may engage an autopilot during the enroute phase of a an IFR flight, including climb and descent, unless;

- (1) the aircraft height above the terrain is not less than twice the maximum altitude loss specified in the Aeroplane Flight Manual for a malfunction of the autopilot under cruise conditions,
- (2) less than 500 feet, whichever is higher, or
- (3) the flight is able to maintain VMC flight conditions.

(b) No person may use an autopilot for an autocoupled approach, at an altitude of less than twice the maximum altitude loss specified in the Aeroplane Flight Manual for a malfunction of the autopilot selected to auto approach mode except;

- (1) When reported weather conditions are less than the basic VFR weather conditions in Section 91.155 of the CASRs, no person may use an autopilot with an approach coupler for ILS approaches at an altitude above the terrain that is less

than 50 feet higher than the maximum altitude loss specified in the Aeroplane Flight Manual for the malfunction of the autopilot with approach coupler under approach conditions; and

(2) When reported weather conditions are equal to or better than the basic VFR minimums in Section 91.155 of the CASRs, no person may use an autopilot with an approach coupler for ILS approaches at an altitude above the terrain that is less than the maximum altitude loss specified in the Aeroplane Flight Manual for the malfunction of the autopilot with approach coupler under approach conditions, or 50 feet, whichever is higher.

(c) Notwithstanding Paragraph (a) or (b) of this section, the Director may issue operations specifications to allow the use, to touchdown, of an approved flight control guidance system with automatic capability if;

(1) The system does not contain any altitude loss (above zero) specified in the Aeroplane Flight Manual for malfunction of the autopilot with approach coupler; and

(2) He finds that the use of the system to touchdown will not otherwise affect the safety standards required by this section.

135.581 Use of Certified Airports

Except as authorized by the Director, no air carrier shall assign and no pilot shall land or attempt to land a turbojet aeroplane at an airport in Indonesia, unless that airport is certified for such class and category of aircraft.

135.583 Aeroplane security

An air carrier conducting operations under this part shall comply with the applicable security requirements of the DGAC.

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SUBPART Q - DISPATCHING AND FLIGHT RELEASE RULES

135.591 Applicability

This subpart prescribes dispatching rules for all air carriers operating under this Part unless otherwise specified.

135.593 Co-Authority Dispatch System

Except as otherwise authorized by the Director, each air carrier that operates turbojet aeroplanes, or large aircraft with a passenger seating configuration of 10 or more, in a commuter air transportation service, shall release such aircraft under a co-authority dispatch system as laid down in Subsection (c) of section 135.597.

135.595 Pilot Self-Dispatch System

(a) Any air carrier not required to release its flight under a co-authority dispatch system should release its flights;

- (1) under a pilot self-dispatch system as laid down in Subsection (d) of section 135.597, or at the company's discretion,
- (2) a co-authority dispatch system as laid down in Subsection (c) of section 597, or where required by the Director,
- (3) any dispatch system which exceeds the minimum requirements of a pilot self-dispatch system but does not fully meet the co-authority requirements.

(b) In any case the Director must be satisfied that adequate operational control is being maintained, notwithstanding the size or complexity of any air carrier.

135.597 Operational Control System

(a) Each air carrier shall establish an operational control system as defined in Section 135.1, "Operational Control System," (OCS), for the purpose of dispatching and monitoring the progress of each flight as required by this subpart. The OCS, including the titles and functions of those persons authorized to exercise operational control over a flight, shall be published in the COM.

(b) An air carrier shall develop and publish its procedures for the type, or types of OCS/s, it intends to use for the purpose of releasing its aircraft. Such systems shall meet the definitions of Section 135.1, "co-authority dispatch", or, "pilot self dispatch".

(c) Under a co-authority dispatch system, the Director of Operations has delegated authority and responsibility for operational control over each flight, jointly, to the pilot in command and the flight operations officer, under which system;

- (1) The Flight Operations Officer is responsible for;
 - (i) preparation of the operational flight plan as described in Section 135.601 of this subpart, except;
 - (A) for flights operated in accordance with VFR, only those items of the operational flight plan identified with an asterisk in Section 135.601 need be recorded, and



(B) for aerial work operations, the flight planning and flight release shall meet such standards as determined by the Director in consideration of the operation being undertaken.

- (ii) flight crew briefing and signing the flight release,
- (iii) monitoring the progress of each flight,
- (iv) issuing necessary information for the safety of the flight;
- (v) assisting the captain in decision making with respect to the continuation, diversion or termination of a flight, and
- (vi) follows the procedures made pursuant to Section 135.559 of Subpart P, during the progress of an emergency.

(2) The PIC is responsible for;

- (i) the review of all dispatch documents relating to the proposed flight and signing for his acceptance of the flight release,
- (ii) providing the FOO with flight information relating to the progress condition and arrival of the flight, if required,
- (iii) returning to the company, all flight documents required, pursuant to Subpart V of CASR Part 121, to be retained by the company and,
- (iv) conducting the flight in accordance with all published rules and regulations relating to such flight.

(3) The Director of operations is responsible for ensuring the flight documents required by Subpart V of CASR Part 121 are retained for a period of not less than 90 days or as otherwise determined by the Director.

(4) The air carrier is responsible for ensuring such communication equipment and facilities as appropriate to the flight watch or flight following system required, are in place and serviceable.

(d) Under a pilot-self-dispatch system, the director of operations has delegated the authority and responsibilities laid down in Subsection (c), (1) and (2), of this section to the pilot in command. In the event of an emergency however, the director of operations or his delegate, shall be responsible for the appropriate actions laid down in section 135.559 of Subpart P.

(e) Where a flight release has been issued with respect to a flight, and not withdrawn prior to the take-off, the pilot in command has the final authority as to the departure, continuation, diversion or termination of that flight.

(f) Each crewmember, passenger or other person on board an aircraft during flight time, is subject to the authority of the pilot in command of that aircraft.

(g) The pilot in command of an aircraft during flight time is responsible for the safety of all passengers, crewmembers or other persons on board that aircraft.

(h) No pilot may operate an aircraft in a careless or reckless manner so as to endanger life or property.



(i) Subject to Subsection (d) of this section, no air carrier shall dispatch a flight unless a flight release has been prepared and signed by a flight operations officer, except where the aircraft is:

- (1) a propeller driven aircraft with a maximum certified take off weight of 12500 pounds or less,
- (2) operated in a class E all cargo configuration,
- (3) a helicopter,
- (4) conducting aerial work operations,
- (5) so authorized in the air carrier operation specifications.

(j) Where an aircraft is of a type required to be released by a flight operations officer, such flight release shall be by a means acceptable to the Director as appropriate to the type of operation.

(k) Where a flight release has been issued with respect of a flight, it shall remain in force for the duration of the flight, from the originating point, to the final destination including enroute stops, except where;

- (1) the aircraft has been delayed or otherwise detained at the originating point, or any enroute station stop for a period of more than 4 hours,
- (2) any flight crewmember has been changed from the original crew,
- (3) any member of the flight crew has exceeded his or her maximum flight duty time, necessitating an extension to such duty period,
- (4) the aircraft has been involved in an incident or occurrence which may have altered the status of the maintenance release,
- (5) due to operational requirements the aircraft was forced to divert to an alternate or other airport, not included in the planned itinerary, or
- (6) in the opinion of the PIC or FOO, there has been significant change in the operational weather, or other conditions upon which the flight release was issued, thereby rendering it invalid.

135.599 Conflict Resolution

(a) Where a disagreement occurs between the pilot in command and the flight operations officer, with respect to the operational flight plan of a proposed flight, such conflict shall be resolved by;

- (1) following what ever course of action that would provide the greatest margin of safety, and
- (2) submitting a report giving full details of the area of conflict and the action taken, to the director of operations for his or her assessment and follow-up action.

(b) An air carrier shall describe in its COM, full details of its conflict resolution policy.

135.601 Operational Flight Plan and Flight Release

(a) Each air carrier that is required to dispatch its aircraft under a co-authority or pilot self dispatch system shall prepare an operational flight plan (OFP), that contains the following information as applicable. The OFP may be in any format an air carrier chooses however



a copy must be inserted into the carrier's Company Operations Manual pursuant to Section 135.137(d)(8) of Subpart G, and approved by the Director.

- (1) *air Operator's name;
- (2) *date;
- (3) *aeroplane registration;
- (4) *aeroplane tail number (as applicable);
- (5) *aeroplane types and models (as applicable);
- (6) *flight numbers (as applicable);
- (7) *type of flight; Instrument Flight Rules or Visual Flight Rules at night unless all the air carrier's flights are the same;
- (8) *crew names, rank and assigned position;
- (9) *flight dispatcher's name (if applicable);
- (10) *departure aerodrome;
- (11) *destination aerodrome;
- (12) alternate aerodrome, as applicable, including enroute alternates where required;
- (13) routing to destination by successive navigational waypoints and a method to obtain associated tasks for each;
- (14) routing to alternate aerodrome;
- (15) specification of any way points enroute to satisfy any special operations requirements;
- (16) planned cruise altitudes to destination and alternate (as applicable);
- (17) planned cruise, True Air Speed;
- (18) planned cruise, Indicated Air Speed, or mach number (as applicable);
- (19) wind component at planned cruise altitude: these may be expressed in terms of direction/velocity or as a component/drift angle;
- (20) temperature at cruise altitude;
- (21) ground speed during cruise;
- (22) time from destination to alternate (as applicable); distance to destination: if broken down into waypoint distance components, a total shall be specified;
- (23) distance from destination to alternate;
- (24) fuel burn enroute and from destination to alternate;
- (25) *minimum fuel as applicable for the type of flight plan including;
 - (i) taxi,
 - (ii) destination,
 - (iii) alternate (as applicable),
 - (iv) contingency (as Applicable) and
 - (v) holding reserves;
- (26) *operational weight and balance and load control including;
 - (i) aircraft basic weight,
 - (ii) zero fuel weight (if applicable),
 - (iii) total payload broken down into passenger and cargo weights and distribution on board that aircraft,
 - (iv) total fuel on board at brake release,



- (v) planned maximum take off weight, and where the determination of aircraft trim position requires center of gravity, (C of G) position,
- (vi) the C of G position,
- (28) *signature of pilot-in-command and as applicable, the Flight Dispatcher certifying the accuracy and acceptance of the OFP;
- (29) *number of persons on board: crew and passengers, as amended by final load figures.

(b) Every flight release required under this Subpart shall certify that the OFP has been prepared and accepted, in accordance with the procedures laid down in the COM.

135.603 Dispatch Centers and Facilities

(a) An air carrier shall ensure it has sufficient dispatch centers, facilities and personnel to effectively maintain operational control over each flight as required by this section and shall provide;

- (1) in the case of an air carrier utilizing turbojet aeroplanes, or aircraft having a passenger seating configuration of 10 or more, in commuter operations;
 - (i) a dispatch center at each airport from which originating flights occur on a scheduled basis, and
 - (ii) adequate dispatch facilities and personnel at other airports as determined by the Director.
- (2) in the case of a charter air carrier that uses non-turbojet aircraft with a passenger-seating configuration of 9 or less;
 - (i) dispatch facilities and personnel shall be adequate for the proposed air transportation service, as determined by the Director.
- (3) In the case of an aerial work air transportation service utilizing any type or size of aircraft;
 - (i) dispatch facilities and personnel adequate to the proposed specialty air transportation service as determined by the Director.

(b) In making his determination as to the acceptability of an air carriers dispatch facilities, equipment and personnel, the Director considers the overall ability of the carrier's operational control system, to effective release, following, or watch each flight as appropriate.

135. 605 Required Flight Operations Officers

(a) Each operator required to utilize Flight Operations Officers as specified by 135.395 shall establish the daily duty period for each Flight Operations Officer so that it begins at a time that allows him to become thoroughly familiar with existing and anticipated weather conditions along the route before he dispatches any aeroplane. He shall remain on duty until each aeroplane dispatched by him has completed its flight, or has gone beyond his jurisdiction, or until he is relieved by another qualified Flight Operations Officer.

135.607 Familiarity with Weather Conditions

(a) No flight operations officer may release a flight unless he is thoroughly familiar with reported and forecast weather conditions on the route to be flown.

(b) No pilot in command may begin a flight unless he is thoroughly familiar with reported and forecast weather conditions on the route to be flown.

135.609 Dispatch and In-flight Briefing

(a) The flight operations officer shall provide the pilot in command all available current reports or information on airport conditions and irregularities of navigation facilities that may affect the safety of the flight.

(b) Before beginning a flight, the flight operations officer shall provide the pilot in command with all available weather reports and forecasts of weather phenomena that may affect the safety of flight, including adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude windshear, for each route to be flown and each airport to be used.

(c) During a flight, the flight operations officer shall provide the pilot in command any additional available information of meteorological conditions including adverse weather phenomena, such as clear air turbulence, thunderstorms, and low altitude windshear, and irregularities of facilities and services that may affect the safety of the flight.

135.611 Maintenance Status

(a) No person may dispatch or release an aeroplane unless it is airworthy and all known defects have been rectified and appropriately certified by an aircraft maintenance engineer except where the dispatch of the aircraft is in accordance with an approved MEL.

(b) Under a co-authority dispatch system the pre-flight briefing issued by the FOO shall include a full review of the aircraft maintenance status.


135.613 Flight Watch and Flight Following Systems

(a) Every air carrier required to release its flights under a co-authority dispatch system, shall provide to such flights, flight watch services as defined in Section 135.1 "flight watch", and as described in the COM. Except as otherwise approved, every flight watch system must be capable of communicating with a flight, at any point along the proposed route.

(b) Every air carrier which is authorized to release its flights under a pilot self dispatch system, shall provide to such flights, the type of flight following services defined in Section 135.1, "flight following", or otherwise approved by the Director.

135.615 VFR Take-off Minima

No person shall commence a VFR flight unless the latest available ceiling and visibility reports or forecasts as established in accordance with Section 135.649(b), indicate that the weather conditions along the route to be flown and at the destination airport indicated the flight could be conducted under VFR.



135.617 IFR Take-off Minima

(a) No person shall conduct a take-off in any aircraft in IMC where the weather conditions as established in accordance with Section 135.649(b), are at or above the take-off minima, but below landing limits for that runway except in accordance with section 135.619.

135.619 Take-off Alternate Airport

(a) A person may conduct a take-off at an airport where the weather is below the landing minima specified in the air carrier's operations specifications provided, the aircraft has two or more engines and a suitable alternate airport located within the following distances is listed on the operational flight plan:

- (1) Aircraft having two engines. Not more than one hour from the departure airport at normal cruising speed in still air with one engine inoperative.
- (2) Aircraft having three or more engines. Not more than two hours from the departure airport at normal cruising speed in still air with one engine inoperative.

(b) For the purpose of Paragraph (a) of this section, a suitable alternate airport is an airport where the weather conditions at the estimated time of arrival are expected to be at or above the alternate airport weather minima listed in the air carrier's operations specifications.

135.621 Dispatch Over Water

(a) No person may dispatch or release an aircraft for a flight that involves extended overwater operation except in accordance with an operations specification

(b) Each operator shall conduct extended overwater operations under IFR unless it shows that operating under IFR is not necessary for safety.

(c) Each operator shall conduct other overwater operations under IFR if the Director determines that operation under IFR is necessary for safety.

(d) Each authorization to conduct extended overwater operations under VFR and each requirement to conduct other overwater operations under IFR will be specified in the operator's operations specifications.

135.623 Alternate Airport Criteria

(a) No person may dispatch an aeroplane under IFR unless he lists at least one alternate airport for each destination airport in the operational flight plan. 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; and
- (2) Visibility will be at least 5 statute miles, and
- (3) the aircraft will have sufficient fuel to meet the requirements of Section 135.639 (b).

(b) For the purposes of Paragraph (a) of this section, the weather conditions at the alternate airport must meet the requirements of Section 135.625.

(c) No person may dispatch a flight unless he lists each required alternate airport in the operational flight plan.

135.625 Alternate Airport Weather Minima

No person may list an airport as an alternate airport in the operational flight plan unless the appropriate weather reports and/or forecasts, indicate that the weather conditions will be at or above the alternate weather minimums specified in the air carrier's operations specifications for that airport when the flight arrives.

135.627 Reserved

135.629 Operation in Icing Conditions

(a) No person may attempt a takeoff, continue to operate an aircraft enroute, or land an aircraft in icing conditions which in the opinion of the pilot in command, may adversely affect the safety of the flight.

(b) No FOO may issue a flight release and no pilot in command shall attempt a takeoff in an aircraft when frost, ice, or snow is adhering to the wings, control surfaces, propellers, engine inlets, or other critical surfaces of the aircraft except in accordance with that air carrier's approved critical surface contamination procedures.

(c) Takeoffs with frost adhering to the undersurface of the aircraft wing may be authorized by the Director where such takeoffs have been approved by the aircraft manufacture.

(d) An air carrier is not required to have a program as required in Paragraph (b) of this section, if it includes in its COM, a statement that the air carrier will not dispatch its aircraft into any region or country where it could be reasonably expected that surface contamination could at anytime form on the aircraft, while parked or operating on the ground.

135.631 Reserved

135.633 Reserved

135.635 Reserved

135.637 Minimum Fuel Requirements for Day VFR Flight

Except as may be required by the Director no aircraft shall be released for flight and no pilot shall operate an aircraft under this Subpart unless the fuel on board the aircraft meets the requirements of CASR 91.151.

135.639 Minimum Fuel Requirements for IFR Flight

(a) No person may release a flight and no person shall conduct a take-off in any aircraft within Indonesia unless it has sufficient fuel to fly to the destination airport, thereafter to fly to the flight planned alternate airport, and thereafter to fly for 45 minutes at normal cruising fuel consumption. In the case of helicopter the required reserve fuel is 30 minutes at normal cruise.

(b) No person may release an aeroplane to an airport for which an alternate is not specified under 135.623(a) unless it has enough fuel, considering wind and other weather conditions expected, to fly to that airport and thereafter to fly for at least two hours at normal cruising fuel consumption.

135.641 Fuel Planning

(a) When computing fuel requirements for the purposes of this subpart, the following factors shall be considered;

- (1) wind and other weather conditions forecast.
- (2) anticipated traffic delays.
- (3) one instrument approach and possible missed approach at destination.
- (4) any other conditions that may delay landing of the aircraft.

(b) All fuel requirements are taken to mean usable fuel.

135.643 Takeoff and Landing Weather Minima for VFR Flight

No pilot may takeoff or land an aircraft under VFR when the reported ceiling or visibility as established in accordance with Section 135.649(b), is less than 1,000-foot ceiling and the visibility is not less than three statute miles, (4.8 km).

135.645 Takeoff and Landing Weather Minima for IFR Flight

(a) No pilot may attempt a takeoff in an aircraft under IFR when the weather conditions as established in accordance with Section 135.649(b), are less than those specified for such operation in;

- (1) The air carrier's operations specifications; or
- (2) Part 91 of CASRs, if the air carrier's operations specifications do not specify takeoff minima for the airport.

(b) Except as provided in Paragraph (d) of this section, no pilot may continue an approach past the final approach fix, or where a final approach fix is not used, begin the final approach segment of an instrument approach procedure unless the reported visibility is at or above the visibility minimums prescribed for that procedure.

(c) If a pilot has begun the final approach segment of an instrument approach procedure in accordance with Paragraph (b) of this section and after that receives a later weather report indicating below minimum conditions, the pilot may continue the approach to DH or MDA. Upon reaching DH or at MDA, and at any time before the missed approach point, the pilot may continue the approach below DH or MDA and touch down if;

- (1) The aircraft is continuously in a position from which a descent to a landing on the intended runway can be made at a normal rate of descent using normal maneuvers, and where that descent rate will allow touchdown to occur within the touchdown zone of the runway of intended landing;
- (2) The flight visibility is not less than the visibility prescribed in the standard instrument approach procedure being used;
- (3) Except for Category II or Category III approaches where any necessary visual reference requirements are specified by authorization of the Director, at least one of the following visual references for the intended runway is distinctly visible and identifiable to the pilot:
 - (i) The approach light system, except that the pilot may not descend below 100 feet above the touchdown zone elevation using the approach lights as a reference unless the red terminating bars or the red side row bars are also distinctly visible and identifiable.
 - (ii) The threshold.
 - (iii) The threshold markings.
 - (iv) The threshold lights.
 - (v) The runway end identifier lights.
 - (vi) The visual approach slope indicator.
 - (vii) The touchdown zone or touchdown zone markings.
 - (viii) The touchdown zone lights.
 - (ix) The runway or runway markings.
 - (x) The runway lights; and
- (4) When the aircraft is on a straight-in non-precision approach procedure which incorporates a visual descent point, the aircraft has reached the visual descent point, except where the aircraft is not equipped for or capable of establishing that point, or a descent to the runway cannot be made using normal procedures or rates of descent if descent is delayed until reaching that point.

(d) For the purpose of this section, the final approach segment begins at the final approach fix or facility prescribed in the instrument approach procedure. When a final approach fix is not prescribed for a procedure that includes a procedure turn, the final approach segment begins at the point where the procedure turn is completed and the aircraft is established inbound toward the airport on the final approach course within the distance prescribed in the procedure.

(e) Unless otherwise authorized in the air carrier's operations specifications, each pilot making an IFR takeoff, approach, or landing at a foreign airport shall comply with the applicable instrument approach procedures and weather minimums prescribed by the authority having jurisdiction over the airport.

135.647 Reserved

135.649 Applicability of reported weather minimums.

(a) For the purpose of determining minimum ceiling and visibility values for take off and

landing, the latest official weather report published for that airport shall be used. However, where the visibility in such report, or where the control tower expresses the visibility is in terms of "runway visibility" or, "runway visual range" (RVR) for a particular runway at that airport, that specified value shall be taken to be the official visibility for the affected runway only. All other runways will be assessed in light of the general visibility published for that airport.

(b) Notwithstanding any clearance from ATC, no pilot may attempt a takeoff, approach or landing in any aircraft when the weather conditions reported by the Badan Meteorologi dan Geofisika (BMG), a source approved by the BMG, or a source approved by the Director in the company operations manual, are;

- (1) below the weather minima prescribed in this Subpart for the type of operation proposed, and
- (2) in the case of VFR, no pilot may continue a flight in weather conditions which have deteriorated below the minimums prescribed for such flight.

135.651 Flight altitude rules

(a) General. Notwithstanding Section 91.119 or any rule applicable outside Indonesia, no person may operate an aircraft below the minimums set forth in Paragraphs (b) and (c) of this section, except when necessary for takeoff or landing, or except when, after considering the character of the terrain, the quality and quantity of meteorological services, the navigational facilities available, and other flight conditions, the Director prescribes other minimums for any route or part of a route where he finds that the safe conduct of the flight requires other altitudes. Outside of Indonesia the minimums prescribed in this section are controlling unless higher minimums are prescribed in the operator's operations specifications or by the foreign country over which the aircraft is operating.

(b) Day VFR operations. No person may operate any aircraft under VFR during the day at an altitude less than 1,000 feet above the surface or less than 1,000 feet from any mountain, hill, or other obstruction to flight. VFR night is prohibited.

(c) IFR operations. No person may operate an aircraft under IFR at an altitude less than 1,000 feet above the highest obstacle within a horizontal distance of five miles from the center of the intended course, or, in designated mountainous areas, less than 2,000 feet above the highest obstacle within a horizontal distance of five miles from the center of the intended course.

135.653 [Reserved]

135.655 Initial approach altitude

When making an initial approach to a radio navigation facility under IFR, no person may descend below the pertinent minimum altitude for initial approach (as specified in the instrument approach procedure for that facility) until his arrival over that facility has been definitely established.

135.657 [Reserved]



135.657 Reserved

135.659 Flight plan: VFR and IFR:

No person may takeoff an aircraft unless the operator has filed a flight plan, containing the appropriate information required by Part 91, with the nearest DGAC communication station or appropriate military station or, when operating outside Indonesia, with other appropriate authority. However, if communications facilities are not readily available, the pilot in command shall file the flight plan as soon as practicable after the aircraft is airborne. A flight plan must continue in effect for all parts of the flight.

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SUBPART R - RECORDS AND REPORTS

135.681 Applicability

This subpart prescribes requirements for the preparation and maintenance of records and reports for all air carriers.

135.683 Crewmember and Flight Operations Officer Record.

(a) Each air carrier shall.

(1) Maintain current records of each crewmember and each flight operations officer 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, aeroplane and route qualifications, training, any required physical examinations, flight, duty, and rest time records; and

(2) Record each action taken concerning the release from employment or physical or professional disqualification of any flight crewmember or flight operations officer.

(b) Computer record systems approved by the Director may be used in complying with the requirements of Paragraph (a) of this section.

135.685 Aircraft Record

Each air carrier shall maintain a current list of each aircraft that it operates and shall send a copy of the record and each change to the DGAC. Aeroplanes of another air carrier operated under an interchange agreement may be incorporated by reference.

135.687 [Reserved]

135.689 [Reserved]

135.691 [Reserved]

135.693 [Reserved]

135.695 Disposition of Flight Documentation

(a) All flight documentation required in Subpart V of CASR Part 121, to be prepared with respect of a flight and which was carried onboard that flight shall be returned to the company's home base in accordance with 135.597(c)(2)(iii). Such documentation shall include, weather maps and printed information, notams, cargo and fuel loading sheets and manifests, and all paperwork which was used to record the flight progress, diversion, irregular of emergency situations.

(b) The air carrier shall keep copies of the records required in this section for at least three months.

135.697 [Reserved]



135.699 [Reserved]

135.701 Maintenance Log: Aircraft

(a) Each person who takes action in the case of a reported or observed failure or malfunction of an airframe, engine, propeller, or appliance that is critical to the safety of flight shall make, or have made, a record of that action in the aircraft maintenance log.

(b) Each air carrier shall have an approved procedure for keeping adequate copies of the record required in paragraph (a) of this section in the aircraft in a place readily accessible to each flight crewmember and shall put that procedure in the air carrier's manual.

135.703 Service Difficulty Reports

(a) Each air carrier shall report the occurrence or detection of each failure, malfunction, or defect concerning;

- (1) Fires during flight and whether the related fire warning system functioned properly;
- (2) Fires during flight not protected by a related fire warning system;
- (3) False fire warning during flight;
- (4) An engine exhaust system that causes damage during flight to the engine, adjacent structure, equipment, or components;
- (5) An aircraft component that causes accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight;
- (6) Engine shutdown during flight because of flameout;
- (7) Engine shutdown during flight when external damage to the engine or aircraft structure occurs;
- (8) Engine shutdown during flight due to foreign object ingestion or icing;
- (9) Engine shutdown during flight of more than one engine;
- (10) A propeller feathering system or ability of the system to control overspeed during flight;
- (11) A fuel or fuel dumping system that affects fuel flow or causes hazardous leakage during flight;
- (12) An unwanted landing gear extension or retraction, or an unwanted opening or closing of landing gear doors during flight;
- (13) Brake system components that result in loss of brake actuating force when the aeroplane is in motion on the ground;
- (14) Aircraft structure that requires major repair;
- (15) Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the DGAC;
- (16) Aircraft components or systems that result in taking emergency actions during flight (except action to shut down an engine); and



(17) Emergency evacuation systems or components including all exit doors, passenger emergency evacuation lighting systems, or evacuation equipment that are found defective, or that fail to perform the intended functions during an actual emergency or during training, testing, maintenance, demonstrations, or inadvertent deployments.

(b) For the purpose of this section "during flight" means the period from the moment the aircraft leaves the surface of the earth on takeoff until it touches down on landing.

(c) In addition to the reports required by paragraph (a) of this section and as prescribed by the Director General, each air carrier shall report any other failure, malfunction, or defect in an aircraft that occurs or is detected at any time if, in its opinion, that failure, malfunction, or defect has endangered or may endanger the safe operation of an aircraft used by it.

(d) Each air carrier shall send each report required by this section, in writing, to the DGAC office within the next 72 hours. However, a report that is due on Saturday or Sunday may be mailed or delivered on the following Monday, and one that is due on a holiday may be mailed or delivered on the next workday.

(e) The air carrier shall transmit the reports required by this section in a manner and on a form as prescribed by the Director, and shall include in the first report as much of the following as is available:

(1) Type and identification number of the aircraft.

(2) The name of the operator.

(3) The date, flight number, and stage during which the incident occurred (e.g., preflight, takeoff, climb, cruise, descent, landing, and inspection).

(4) The emergency procedure effected (e.g., unscheduled landing and emergency descent).

(5) The nature of the failure, malfunctions, or defects.

(6) Identification of the part and system involved, including available information pertaining to type designation of the major component and time since overhaul.

(7) Apparent cause of the failure, malfunctions, or defects (e.g. wear, crack, design deficiency, or personnel error).

(8) Whether the part was repaired, replaced, sent to the manufacturer, or other action taken.

(9) Whether the aircraft was grounded.

(10) Other pertinent information necessary for more complete identification, determination of seriousness, or corrective action.

(f) An air carrier that is also the holder of a Type Certificate (including a Supplement Type Certificate), a Parts Manufacturer Approval, or a Technical Standard Order Authorization, or that is the licensee of a type air carrier, need not report a failure, malfunction, or defect under this section if the failure, malfunction, or defect has been reported by it under CASR 21.3.

(g) No person may withhold a report required by this section even though all information required in this section is not available.

(h) When air carrier gets additional information, including information from the manufacturer or other agency, concerning a report required by this section, it shall expeditiously submit it as a supplement to the first report and reference the date and place of submission of the first report.

(i) The air carrier shall transmit each report required by this section to the organization responsible for the type design of the aircraft.

135.705 Mechanical Interruption Summary Report

Each air carrier shall regularly and promptly send a summary report on the following occurrences to the Director:

(a) Each interruption to a flight, unscheduled change of aircraft enroute, or unscheduled stop or diversion from a route, caused by known or suspected mechanical difficulties or malfunctions that are not required to be reported under CASR 121.703.

(b) The number of engines removed prematurely because of malfunction, failure or defect, listed by make and model and the aircraft type in which it was installed.

(c) The number of propeller feathering in flight listed by type of propeller and engine and aircraft on which it was installed. Propeller feathering for training, demonstration, or flight check purposes need not be reported.

135.707 Alteration and Repair Reports

(a) Each air carrier shall, promptly upon its completion, prepare a report of each major alteration or major repair of an airframe, aircraft engine, propeller, or appliance of an aircraft operated by it.

(b) The air carrier shall submit a copy of each report of a major alteration to, and shall keep a copy of each report of a major repair available for inspection by, the representative of the Director.

135.709 Maintenance Release or Aircraft Log Entry

(a) No air carrier may operate an aircraft after maintenance, preventive maintenance or alterations are performed on the aircraft unless the air carrier, or the person with whom the air carrier 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 air carrier's manual.

(2) Include a certification that:

- (i) The work was performed in accordance with the requirements of the air carrier's manual;
- (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 aircraft un-airworthy; 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.

(4) The entries cannot be erased.

Notwithstanding paragraph (b)(3) of this section, after maintenance, preventive maintenance, or alterations performed by an Approved Maintenance Organization certificate under the provisions of Subpart C of Part 145, the maintenance release or log entry required in paragraph (a) of this section may be signed by a person authorized by that Approved Maintenance Organization. The authorized person shall meet the requirement of ICAO Annex 1.

(c) When a maintenance release form is prepared the air carrier must give a copy to the pilot in command and must keep a record thereof for at least two months.

(d) Instead of restating each of the conditions of the certification required by paragraph (b) of this section, the air operator may state in its manual that the signature of an authorized licensed aircraft maintenance engineer constitutes that certification.

135. 711 [Reserved]

135. 713 [Reserved]

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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SUBPART S – MISCELLANEOUS PROVISIONS

135.801 Applicability

This Subpart provides rules and procedures for administrative matters as applicable, pertaining to air carriers operating under Part 135 of the Civil Aviation Safety Regulations.

135.803 Regulatory Powers of the Minister of Communication - [Reserved]

135.805 Regulatory Powers of the DGAC - [Reserved]

135.807 Delegation of Regulatory Powers

(a) The Director may delegate certain regulatory powers to his civil servants, or other persons who are responsible for the certification and or monitoring of air carriers, their employees or agents operating under this Subpart. Such regulatory powers are for the purpose of;

- (1) certification of a product or operation,
- (2) sampling and accessing levels of competency or proficiency,
- (3) inspecting for the purpose of establishing levels of conformance with a standard,
- (4) investigation for the purpose of detecting or proving non-compliance with a regulation,
- (5) taking emergency action for the purpose of ensuring the safety of persons or property which have been exposed to an immediate threat, due to the activity or proposed activity of an air carrier or its servants, and
- (6) any person authorized pursuant to CASR Part 183.

(b) Every person who has been delegated regulatory powers, shall exercise those powers in accordance with the procedures established for that purpose.

135.809 Carriage of Narcotic Drugs or Other Illegal Substances.

No air carrier shall knowingly permit any narcotic drug, marihuana, depressant or stimulant drug, or, any other illegal substances, to be carried on board any aircraft owned or operated by them. The violation of this section shall be considered the basis for suspension or revocation or revocation of the air carrier's Air Operator Certificate.

CASR Part 135 - Certification and Operating Requirements For Commuter and Charter Air Carriers

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APPENDIX – A-A DESCRIPTION OF AERIAL WORK OPERATIONS

Aerial work operations, are air transportation services of a specialized nature. Such services are substantially different from commuter and charter operations therefore warrant special consideration for certification and operating authority. Speciality air transportation services are certified under Part 135, however they may be required to operate under special rules published as Advisory Circulars (AC) or other Parts of the CASRs. In such cases the AC or CASR Part, containing special operating rules will be referenced in the air carrier's operating specifications.

These special purpose air transportation services fall into six specific categories, however the regulations provide for a seventh category to accommodate new types of services, as may be introduced from time to time. Aerial work authorizations do not normally provide for the carriage of passengers except where such passengers are required to be transported and specifically trained for the ground operations relating to that service. These persons fall into three categories;

- (a) persons required to perform duties during flight time, for example, photographers, tree counters, airborne equipment operators, medics, etc., and
- (b) persons who have no specific duty during flight however are being transported to a location where their specialized services are required and where in the opinion of the Director, are essential for the successful completion of the mission. For example fire fighters, search and rescue specialists, paramedics etc.
- (c) passengers who are being transported for medical reasons as a patient.

A breakdown of each category is described herein and reflect all the types of specialized services which are presently being authorized in Indonesia.

1. Helicopters carrying external loads pursuant to Subpart C and G of Part 135.
These operations are certified and authorized for the specific job or jobs being proposed by the air carrier. They do not provide for the carriage of passengers other than persons who have specific duties during flight time which are essential to the operation of that service. All operations involving external loads will be certified to ensure compliance with the relevant sections of Part 135 or other documents which may be identified by the Operating Specification. In the case of External Cargo Operations in a Class D configuration, each operation must be approved on a case by case basis.
2. Towing objects, In most cases this special purpose operation deals with banner or glider towing for sport purposes, but is not restricted to those services where the Director is of the opinion other such other services may be provided in a safe and proper manner. Flying schools certified under Part 141 may also hold this

specialty authority to provide glider towing if authorized to do so on their Air Operating Certificate.

3. Dispersal of products.

This service provides for the dispersal of any product that in the opinion of the Director can be safely discharged from an aircraft and in accordance with such special rule as may be contained in, or referenced by the Operating Specification. Services such as, but not limited to;

- (a) the application of chemicals, seeding or fertilizers for agricultural purposes,
- (b) pestilent control,
- (c) cloud seeding,
- (d) oil slick containment,
- (e) fire suppression,
- (f) ejection of data gathering apparatus, and
- (g) certain recreational or competitive activities.

Agriculture operations is governed by CASR Part 137.

4. Aerial survey and photography, except scenery. Photographing scenery is not considered to be a commercial activity therefore does not require an AOC.

5. Air Ambulance. This service is self explanatory.

6. Flight Inspection and Calibration of air navigational facilities. Where such calibration flights are operated by privately owned or operated aircraft they must be conducted under the authority of an AOC.

7. Other service would include such specialties as parachute dropping pursuant to the special rules adopted for that activity in CASR Part 105.

APPENDIX D-A - Description Of Elements For A Flight Safety Program

(a) Program Elements

The following elements shall be included in an air carrier's Flight Safety Program and described in the appropriate Manuals:

- Air Carrier's Management Plan
- Qualifications of the Flight Safety Person
- Responsibilities of the Flight Safety Person
- Training for the Flight Safety Person
- Incident Management
- Flight Safety Committee
- Emergency Response Planning
- Communication and Safety Education

(b) Description of Program Elements

(1) Air Carrier's Management Plan

The plan shall identify the management position responsible for ensuring that:

- (i) all the necessary elements of the program have been developed, properly integrated, and coordinated;
- (ii) the Program has been disseminated to all appropriate personnel;
- (iii) a detailed description of the program is incorporated in the appropriate air carrier's manuals; and
- (iv) adequate Program management is maintained.

(2) Responsibilities of the Flight Safety Person

This person shall have direct access to the operations manager in flight safety matters and shall be responsible for managing the flight safety program by:

- (i) monitoring and advising on all air carrier flight safety activities which may have an impact on flight safety;
- (ii) establishing a reporting system which provides for a timely and free flow of flight safety related information;
- (iii) conducting safety surveys;

- (iv) soliciting and processing flight safety improvement suggestions;
- (v) developing and maintaining safety awareness program;
- (vi) monitoring industry flight safety concerns which may have an impact on air carrier operations;
- (vii) maintaining close liaison with aeroplane manufacturers;
- (viii) maintaining close liaison with DGAC;
- (ix) maintaining close liaison with industry safety associations;
- (x) developing and maintaining the air carrier accident response plan;
- (xi) identifying flight safety deficiencies and making suggestions for corrective action;
- (xii) investigating and reporting on incidents/accidents and making recommendations to preclude a recurrence;
- (xiii) developing and maintaining a flight safety database to monitor and analyze trends;
- (xiv) making recommendations to the air carrier senior management on matters pertaining to flight safety; and
- (xv) monitoring the response and measuring the results of flight safety initiatives.

(3) Training of the Flight Safety Person

Except as approved by the DGAC, the flight safety person shall successfully complete a training course over a period of not more than one year, that shall include the following subjects:

- (i) flight safety philosophy;
- (ii) human factors and the decision making process;
- (iii) accident prevention;
- (iv) the role of the flight safety officer as advisor to senior management;
- (v) risk management;
- (vi) accident/incident management;
- (vii) the aviation safety survey;
- (viii) emergency response plan; and
- (ix) incident investigation.

(4) Incident Management

The air carrier shall be responsible for providing employees with a timely means of reporting any unsafe conditions. The person responsible for the flight safety program shall institute and maintain an incident reporting system. This system will provide for:

- (i) a process of reporting incidents;
- (ii) investigation of incidents;
- (iii) the means of advising management; and
- (iv) information feedback to employees.

(5) Flight Safety Committee

An air carrier shall establish a Flight Safety Committee that is capable of representing all flight and ground divisions of the company and in the case of companies with multiple bases, the oversight must also include such bases.

(i) Responsibilities

The responsibilities of the Committee shall be to monitor all areas of the operation, identify safety concerns and deficiencies, and make recommendations for corrective measures to senior management where applicable.

(ii) Members

The Committee members shall be selected to ensure representation of all operating departments in the organization and in matters concerning the safety program, will report to the CASO or person designated by the CASO, irrespective of their functional department.

(iii) Meetings

The Committee shall meet on a regular basis (at least twice a year) as established by the committee chairperson. Special meetings on urgent matters may be called by any Committee member. Committee members may also attend other meetings for the purpose of delivering safety committee reports.

(iv) Minutes

Minutes of the Committee meetings shall provide a record of agenda items, decisions and corrective actions taken where applicable. A mandatory circulation schedule of the minutes of all regular and extra-ordinary meetings, based upon need to know, will be developed for the entire company and a community minutes document/s, will be maintained in a place or places, suitably available to any company employee.

(6) Emergency Response Planning

The air carrier shall develop and maintain an Air Carrier Emergency Response Plan that shall include the following elements:

- (i) air carrier policy;
- (ii) air carrier mobilization and agencies notification;
- (iii) passenger and crew welfare;
- (iv) casualty and next-of-kin coordination;
- (v) accident investigation on behalf of the air carrier;
- (vi) air carrier team's response to the accident site;
- (vii) preservation of evidence;
- (viii) media relations;
- (ix) claims and insurance procedures;
- (x) aeroplane wreckage removal; and
- (xi) emergency response training.

(7) Communication and Safety Education

- (i) The air carrier shall be responsible for an efficient system of distributing appropriate safety material in a timely manner.
- (ii) The air carrier shall by means of films, video, posters or other printed material, ensure there is a means of safety education on areas where the various departments of the air carrier may be at risk.

APPENDIX G-A MAINTENANCE, PREVENTIVE MAINTENANCE, AND ALTERATIONS OF LIGHT AIRCRAFT UNDER CASR 135.361

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135xGa Applicability

This appendix prescribes rules governing the maintenance, preventive maintenance, and alterations of an aircraft that is maintained to an approved aircraft inspection program under a CASR 135 operating certificate and operating within or outside of Indonesia.

135xGb General.

(a) The owner or operator of an aircraft is primarily responsible for maintaining his aircraft in an airworthy condition, including compliance with CASR 39.

(b) No person may perform maintenance, preventive maintenance, or alterations on an aircraft other than as prescribed in this appendix, CASR 135, and CASR 43.

(c) No person may operate an aircraft for which a manufacturer's maintenance manual or instructions for continued airworthiness has been issued that contains an airworthiness limitations section unless the mandatory replacement times, inspection intervals, and related procedures specified in that section or alternative inspection intervals and related procedures set forth in an operations specification approved by the Director under CASR 121, or 135 or in accordance with an inspection program approved under 135xGe have been complied with.

(d) Notwithstanding the preceding sub paragraph (c), when the manufacturer amends his published airworthiness limitations and that amendment decreases the mandatory replacement times, inspection intervals, and related procedures, the certificate holder shall within 30 days of publication by the manufacturer, notify the Director by submitting an amendment to his currently approved operations specification and maintenance manual. The proposed amendment shall contain mandatory replacement times, inspection intervals, and related procedures that do not exceed the manufacturers limitations.

135xGc Maintenance required.

Each certificate holder operating an aircraft –

- (a) Shall have that aircraft inspected as required by this appendix and shall between required inspections, except as provided in paragraph (c) of this section, have discrepancies repaired as prescribed in CASR 43;
 - (1) Shall ensure that maintenance personnel make appropriate entries in the aircraft maintenance records indicating the aircraft has been approved for return to service;
 - (2) Shall have any inoperative instrument or item of equipment, permitted to be inoperative by a CASR135 approved MEL, repaired, replaced, removed, or inspected at the next required inspection; and
 - (3) When listed discrepancies include inoperative instruments or equipment, shall ensure that a placard has been installed as required by CASR 43.11.

135xGd Operation after maintenance, preventive maintenance, rebuilding, or alteration.

- (a) No person may operate any aircraft that has undergone maintenance, preventive maintenance, rebuilding, or alteration unless –
 - (1) It has been approved for return to service by a person authorized under CASR 43.7; and
 - (2) The maintenance record entry required by CASR 43.9 or 43.11, as applicable, has been made.
- (b) No person may carry any person (other than crewmembers) in an aircraft that has been maintained, rebuilt, or altered in a manner that may have appreciably changed its flight characteristics or substantially affected its operation in flight until an appropriately rated pilot with at least a private pilot certificate flies the aircraft, makes an operational check of the maintenance performed or alteration made, and logs the flight in the aircraft records.
- (c) The aircraft does not have to be flown as required by paragraph (b) of this section if, prior to flight, ground tests, inspection, or both show conclusively that the maintenance, preventive maintenance, rebuilding, or alteration has not appreciably changed the flight characteristics or substantially affected the flight operation of the aircraft.

135xGe Approved Aircraft Inspection Program (AAIP)

- (a) A Certificate holder requesting to use an Approved Aircraft Inspection Program (AAIP), as required by CASR 135.367 (b), must submit a written request to the DAC and if not approved to carry out such inspections, the certificate holder shall provide an approved maintenance organization, or a CASR121 or 135 AOC holder, to supervise or conduct the inspections.

(b) The certificate holder shall also provide-

(1) A current inspection manual available and readily understandable to pilot and maintenance personnel containing, in detail:

(i) An explanation of the AAIP, including the continuity of inspection responsibility, the making of reports, and the keeping of records and technical reference material in accordance with CASR 135.380;

(ii) An inspection schedule of the individual tasks or groups of tasks encompassing the total aircraft, including all avionics equipment, emergency equipment, cargo provisions, etc. The schedule shall also list the frequency of task(s) performance and may include instructions for exceeding an inspection interval by not more than 10 hours while enroute and for changing an inspection interval because of service experience. These time intervals must also address a low aircraft utilization schedule;

(iii) Sample routine and detailed inspection forms and instructions for their use;

(iv) Instructions for accomplishing each task on the inspection schedule. These instructions must satisfy CASR Section 43.13(a) regarding methods, techniques, practices, tools, and equipment;

(v) A system for recording discrepancies and their correction. If deferral of discrepancies is authorized by the program, a system for control and follow up action is required;

(vi) A means of accounting for work forms upon completion of an inspection;

(vii) A Corrosion Protection Control Program and a Supplemental Structural Inspection type program;

(viii) Procedures for transferring an aircraft from another program to a AAIP; and

(ix) Sample reports and records as required by CASR 135.703 and .705 and instructions for their use;

(2) Enough housing and tools and equipment for the necessary disassembly and proper inspection of the aircraft; and

(3) Appropriate currently amended technical information for the aircraft, engine, propeller and appliances. The technical information shall include, but is not limited to, maintenance manuals, parts catalogues, service bulletins, and service letters.

(c) The AAIP shall provide for the complete inspection of the aircraft within each 12 calendar months and be consistent with the manufacturers recommendations, field service experience, and the kind of operation in which the aircraft is engaged. The inspection schedule must ensure that the aircraft, at all times, will be airworthy and will conform to all applicable DGAC aircraft specifications, type certificate data sheets, airworthiness directives, and other approved data.

(Note; if the aircraft is removed from CASR 135 operations and the AAIP is discontinued, the owner or operator shall immediately notify the DGAC, in writing, of the discontinuance. Procedures for reversion back to annual and 100-hour inspections are discussed in CASR 91.409.)

135xGf Altimeter system and altitude reporting equipment tests and inspections

(a) No person may operate an airplane, or helicopter, in controlled airspace under IFR unless -

(1) Within the preceding 24 calendar months, each static pressure system, each altimeter instrument, and each automatic pressure altitude reporting system has been tested and inspected and found to comply with appendix E of CASR 43;

(2) Except for the use of system drain and alternate static pressure valves, following any opening and closing of the static pressure system, that system has been tested and inspected and found to comply with paragraph (a), appendices E and F, of CASR 43; and

(3) Following installation or maintenance on the automatic pressure altitude reporting system of the ATC transponder where data correspondence error could be introduced, the integrated system has been tested, inspected, and found to comply with paragraph (c), appendix E, of CASR 43.

(b) The tests required by paragraph (a) of this section must be conducted by -

(1) The manufacturer of the airplane, or helicopter, on which the tests and inspections are to be performed;

(2) An AMO properly equipped to perform those functions and holding -

(i) An instrument rating, Class 1;

(ii) A limited instrument rating appropriate to the make and model of appliance to be tested;

(iii) A limited rating appropriate to the test to be performed;

(iv) An airframe rating appropriate to the airplane, or helicopter, to be tested; or

(v) A limited rating for a manufacturer issued for the appliance in accordance with CASR 145.101(b)(4) ;or

(3) A licensed mechanic with an instrument rating (static pressure system tests and inspections only).

(c) Altimeter and altitude reporting equipment approved under Technical Standard Orders are considered to be tested and inspected as of the date of their manufacture. (d) No person may operate an airplane, or helicopter, in controlled airspace under IFR at an altitude above the maximum altitude at which all altimeters and the automatic altitude reporting system of that airplane, or helicopter, have been tested.

135xGg ATC transponder tests and inspections

(a) No persons may use an ATC transponder unless, within the preceding 24 calendar months, the ATC transponder has been tested and inspected and found to comply with appendix F of CASR 43 and

(b) Following any installation or maintenance on an ATC transponder where data correspondence error could be introduced, the integrated system has been tested, inspected, and found to comply with paragraph (c), appendix E, of CASR 43.

(c) The tests and inspections specified in this section must be conducted by -

- (1) An AMO properly equipped to perform those functions and holding -
 - (i) A radio rating, Class 111;
 - (ii) A limited radio rating appropriate to the make and model transponder to be tested;
 - (iii) A limited rating appropriate to the test to be performed;
 - (iv) A limited rating for a manufacturer issued for the transponder in accordance with CASR 145.101(b)(4); or
- (2) A holder of a continuous airworthiness maintenance program as provided in CASR 121, or 135.367; or
- (3) The manufacturer of the aircraft on which the transponder to be tested is installed, if the transponder was installed by that manufacturer.

APPENDIX N-A FLIGHT CHECKING STANDARDS

The following schedules lay down the standards for the Pilot proficiency checks required by CASR 135.469 as applicable to the aircraft, simulator or pilot to be checked.

Schedule I

Pilot Proficiency Check - Aeroplane

1. Pre- Flight Phase

(a) Flight Planning and Equipment Examination

- (1) flight planning shall include a practical examination on the pilot's knowledge of standard operating procedures and the Aeroplane Flight Manual including performance charts, loading, weight and balance and Flight Manual Supplements; and
- (2) the equipment examination shall show a practical knowledge of the airframe, engine, major components and systems including the normal, abnormal, alternate and emergency operating procedures and limitations relating thereto.

(b) Aeroplane Inspection

- (1) A pre-flight aeroplane inspection that includes:
 - (i) a visual inspection of the exterior and interior of the aeroplane, locating each item to be inspected and explain the purpose of the inspection;
 - (ii) the proper use of the pre-start, start and pre-taxi check lists; and
 - (iii) checks of the appropriate radio communications, navigation and electronic equipment and selection of the appropriate communications and navigation frequencies prior to flight.

2. Flight Phase

(a) Taxiing

- (1) taxiing procedures include, where appropriate, sailing and docking procedures;
- (2) a taxiing check including:
 - (i) the use of the taxiing check list;
 - (ii) taxiing in compliance with clearances and instructions issued by the appropriate air traffic control unit or by the person conducting the pilot proficiency check; and
 - (iii) where a second-in-command is undergoing the pilot proficiency check, outlined above to the extent practicable from the second-in-command position.

(b) Engine Checks

- (1) Engine checks shall be conducted as appropriate to the aeroplane type.

(c) Take-Off

- (1) One normal take-off to be performed in accordance with the aeroplane flight manual.**
- (2) An instrument take-off performed in the same manner as the normal take-off except that instrument flight rules are simulated at or before reaching an altitude of 200 feet above the airport elevation. An instrument take off is not required to be demonstrated where the air carrier's AOC authorizes operations under day VFR only, or the air operator assigns the pilot undertaking the flight test to day VFR flight only.**
- (3) Where practicable under existing meteorological, airport or airport traffic conditions, one crosswind take-off performed in accordance with the aeroplane operating manual where applicable;**

Note: Any or all of the above take-offs may be combined.

(4) A simulated engine failure after take-off as follows:

- (i) where performed in a visual synthetic flight training device, the simulated failure of the critical engine shall occur at the take-off safety speed plus 10 knots; and**
- (ii) where performed in an aeroplane in flight, at a safe altitude as close to the take-off safety speed plus 10 kts as is safe and appropriate to the aeroplane type under the prevailing conditions;**

(5) A rejected take-off:

- (i) performed in a Level A synthetic flight training device prior to reaching lift-off speed; or**
- (ii) explained by the candidate prior to the flight where the pilot proficiency check is conducted in an aeroplane.**

(d) Instrument Procedures

Except where an air operator certificate authorizes operation under day VFR only, or an operator assigns the pilot to day VFR flight only, instrument procedures shall consist of IFR pre-flight preparation, departure and enroute procedures, terminal procedures and system malfunctions.

(1) An area departure and an area arrival procedure shall be performed where the pilot:

- (i) adheres to actual or simulated air traffic control clearances and instructions; and**
- (ii) properly uses the available navigation facilities;**

(2) holding procedures;

(3) at least two instrument approaches performed in accordance with procedures and limitations in the approach charts being used, or approved company approach procedure for the approach facility used. Where practicable one of the approaches shall be a precision approach; and

(4) a circling approach except where local conditions beyond the control of the pilot prevent a circling approach from being performed;

(e) In Flight Manoeuvres

- (1) at least one steep turn in each direction with a bank angle of 45° and a change in heading of at least 180° but not more than 360°; and**
- (2) approaches to stalls.**

For the purposes of this maneuver the required approach to a stall is reached when there is a perceptible buffet or other response to the initial stall entry. When performed in an aeroplane the approach to stalls shall be conducted at an altitude of at least 5000 feet AGL and if conducted above cloud at an altitude of at least 2000 feet above cloud tops.

The following approaches to stall are required during initial and upgrade PPC's:

- (i) one in the take-off configuration, except where a zero-flap take-off configuration is normally used in that model and type of aeroplane;**
- (ii) one in a clean configuration; and**
- (iii) one in a landing configuration;**

One of the approaches to stall must be performed while in a turn with a bank angle of between 15° and 30°;

(f) Landings and Approaches to Landings

- (1) one normal landing which shall, where practicable, be conducted without external or internal glideslope information;**
- (2) one landing from an instrument approach, and where prevailing conditions prevent an actual landing, an approach to a point where a landing could have been made. A landing from an instrument approach is not required to be demonstrated where the air carrier's operating certificate authorizes operations under day VFR only, or the air operator assigns the pilot undertaking the PPC to day VFR flights only;**
- (3) one cross wind landing where practicable under existing meteorological, airport and airport traffic conditions;**
- (4) one landing and manoeuvring to that landing with a simulated failure of 50 percent of the available engines; and**
- (5) one landing under simulated circling approach conditions except that where prevailing conditions prevent a landing, an approach to a point where a landing could have been made;**

Note: Any of the landings and approaches to landings specified in this section may be combined. A minimum of two landings are required.

(g) Normal Procedures

The pilot shall demonstrate or show knowledge of as many of the normal procedures as the person conducting the check finds are necessary to determine that the pilot has the knowledge and ability to properly use installed equipment. The demonstration of these procedures may be combined with in flight manoeuvres. The following are examples of areas that may be examined:

- (1) anti-icing and de-icing systems;
- (2) auto-pilot systems;
- (3) automatic or other approach aid systems;
- (4) stall warning devices, stall avoidance devices, and stability augmentation system;
- (5) airborne radar devices; and
- (6) other systems, devices, or aids;

(h) Abnormal and Emergency Procedures

- (1) The pilot shall demonstrate use of as many of the normal, abnormal and emergency procedures as is necessary to confirm that the pilot has an adequate knowledge and ability to perform these procedures.
- (2) System malfunctions shall consist of a selection adequate to determine that the pilot has satisfactory knowledge and ability to safely handle malfunctions.
- (3) At least two simulated engine failures any time during the check.

Schedule II

Pilot Proficiency Check - Aeroplane (Synthetic Training Device)

1. Pre-Flight Phase

Flight Planning and Equipment Examination:

(a) flight planning shall include a practical examination on the pilot's knowledge of air operator's approved Standard Operating Procedures and the Aeroplane Flight Manual including aeroplane and runway performance charts, and weight and balance procedures;

(b) the equipment examination shall consist of a display of practical knowledge of the airframe, engine, major components and systems including the normal, abnormal and emergency operating procedures and limitations relating thereto.

2. Flight Phase

(a) Taxiing

(1) the use of the taxiing check list; and

(2) taxiing in compliance with clearances and instructions issued by the person conducting the pilot proficiency check;

(3) where a second-in-command is undergoing the pilot proficiency check, outlined above to the extent practicable from the second-in-command position.

(b) Engine Checks

Engine checks shall be conducted as appropriate to the aeroplane type.

(c) Take-Off

(1) one normal take-off to be performed in accordance with the Airplane Flight Manual;

(2) an instrument take-off in the minimum visibility approved for the air operator;

(3) a take-off in a minimum of a 10 kt crosswind component;

Note: Any or all of the above takeoffs may be combined.

(4) a take-off with failure of the critical engine. This activity may be conducted in lieu of an engine failure during a rejected landing; and

(5) a rejected take-off from a speed not less than 90% of the calculated V1 or less as appropriate to the aeroplane type.

(d) Instrument Procedures:

Instrument procedures shall consist of IFR pre-flight preparations, terminal and enroute procedures, arrival and departure procedures, system malfunctions and where applicable, the proper programming and use of Flight Management Systems, (as applicable).

(1) An area departure and an area arrival procedures shall be performed where the crew:

- (i) adheres to air traffic control clearances and instructions; and
- (ii) properly uses the available navigation equipment and facilities;

(2) a holding procedure;

(3) at least two instrument approaches performed in accordance with procedures and limitations in the approach charts being used or approved company approach procedure for the facility used. One of the approaches shall be a precision approach, and one a non precision approach;

(4) one approach and manoeuvre to land using a scene approved for circling where the air operator is authorized for approaches at the published circling minima, and is required during initial qualification check and annually thereafter.

(e) Manoeuvres

(1) At least one steep turn in each direction with a bank angle of 45° and a change in heading of at least 180° but not more than 360° .

(2) Approaches to stalls

Note: For the purpose of this manoeuvre the required approach to a stall is reached when there is a perceptible buffet or other response to the initial stall entry.

The following approaches to the stall are required during initial and upgrade PPC's:

(i) one in the take-off configuration, except where a zero-flap take-off configuration is normally used in that model and type of aeroplane;

(ii) one in a clean configuration; and

(iii) one in a landing configuration.

One of the approaches to stall shall be performed while in a turn with a bank angle of between 15° and 30° .

- (f) Landings and Approaches to Landings:
- (1) one normal landing;
 - (2) one landing from an approach in Instrument Meteorological Conditions (IMC) not greater than the minimum recommended for the approach;
 - (3) one crosswind landing with a minimum of a 10 kt crosswind component;
 - (4) one landing and manoeuvre to that landing with a failure of 50 percent of the available engines which shall be on one side of the aeroplane for the pilot-in-command and the outboard engine only for other than the pilot-in-command. Where the aeroplane type is a three engine aeroplane, the loss of power shall be the centre engine and one other engine for the pilot-in-command and an outboard engine for other than the pilot-in-command. For three and four engine aeroplanes the pilot-in-command is required to perform a two engine inoperative procedure during the initial qualification check and annually thereafter;
 - (5) one rejected landing or a missed approach. For the purposes of the rejected landing the landing shall be rejected at a height of approximately 50 feet when the aeroplane is approximately over the runway threshold;
 - (6) one Category II or Category III approach where these procedures are authorized in an Air Operator Certificate. Required during the initial qualification flight and annually thereafter;
 - (7) one landing without the use of an auto-land system.

Note: Any of the landings and approaches to landings specified in this section may be combined. A minimum of two landings are required.

(g) Normal Procedures:

The crew shall demonstrate use of as many of the air operator's approved Standard Operating Procedures, normal procedures for installed systems, devices and aids as is necessary to confirm that the crew has the knowledge and ability to properly use installed equipment, including the auto-pilot and hand flown manoeuvres as appropriate.

(h) Abnormal and Emergency Procedures;

- (1) The crew shall demonstrate use of as many of the air operator's approved Standard Operating Procedures and abnormal and emergency procedures for as many of the situations as is necessary to confirm that the crew has an adequate knowledge and ability to perform these procedures.
- (2) System malfunctions shall consist of a selection adequate to determine that the crew has satisfactory knowledge and ability to safely handle malfunctions.
- (3) At least two simulated engine failures any time during the check.

Schedule III

Pilot Proficiency Check - Helicopters

1. Pre-Flight Phase

(a) Flight Planning

- (1) a practical oral examination on applicable flight planning procedures, flight planning information sources and maintenance release procedures; and
- (2) a practical oral examination on the helicopter flight manual including limitations, loading, weight and balance, applicable flight manual supplements and the significance and use of performance charts.

(b) Pre-Flight Inspection

- (1) a visual and, as applicable, functional exterior and interior inspection of the helicopter to show a practical knowledge of the airframe, major components, systems and applicable servicing procedures;
- (2) use of check lists and procedures including engine and system checks; and
- (3) pre-flight checks of communications, navigation, electrical, flight instruments and ice protection systems as appropriate.

2. Flight Phase

(a) Taxiing and Hover Maneuvres

- (1) taxiing includes, when appropriate to the helicopter configuration, both ground and air taxi and, where a second-in-command is undergoing the pilot proficiency check, taxiing to the extent practical from the second-in-command position
- (2) taxiing in compliance with instructions issued by air traffic control or by the person conducting the pilot proficiency check;
- (3) compliance with appropriate taxi, hover and pre-departure check procedures;
- (4) 360 degree hover turns, sideward and rearward hovering manoeuvres and, when practical, out of wind stationary hovering;
- (5) landing from a hover to a sloped surface and take-off to a hover from a sloped surface; and
- (6) landing following simulated engine failure during hover or air taxi.

(b) Departure, Air Work, Approaches

- (1) normal transition to forward flight, climb to assigned altitude and normal approach and landing;
- (2) for single-engine and multi-engine helicopters a take-off with a rapid deceleration or rejected take-off procedure
- (3) for multi-engine helicopters a simulated failure of one engine during take-off that will allow continued climb in forward flight;

- (4) at assigned altitude climbs, descents and level flight throughout the normal speed range of the helicopter including steep turns with a change of heading of at least 180 degrees but not more than 360 degrees;
- (5) for single-engine helicopters autorotation approaches terminating at a pre-determined area in a landing or power recovery. At least one approach shall require a turn during autorotation descent through at least 180 degrees;
- (6) for multi-engine helicopters a simulated engine failure at assigned cruise altitude and an approach and landing with one engine inoperative;
- (7) confined landing area procedure and approach terminating in a landing, hover or rejected approach and, when practical, a confined area departure; and
- (8) steep approach which may be combined with the confined area procedure.

(c) Instrument Procedures

Instrument procedures will consist of IFR pre-flight preparation, departure and enroute procedures, terminal procedures and system malfunctions.

- (1) instrument take-off so that instrument flight conditions are entered or simulated at or before reaching an altitude of 200 feet above take-off elevation;
- (2) an area departure and an area arrival procedure where the pilot:
 - (i) adheres to actual or simulated air traffic control clearances and instructions;
 - (ii) properly uses available navigation facilities.
- (3) a holding procedure that may be combined with an area arrival or departure and includes entry to, maintaining of and leaving a holding pattern;
- (4) at least two instrument approaches performed in accordance with procedures and limitations for the approach facility used;
- (5) at least one missed approach procedure and at least one landing after transition from an instrument approach procedure; and
- (6) emergencies and system malfunctions may be simulated during any phase of the flight.

(d) Normal and Abnormal Procedures

The pilot shall demonstrate use of as many of the normal and abnormal procedures for installed systems, devices and aids as the person conducting the check find necessary to determine that the pilot has the knowledge and ability to properly use installed equipment such as:

- (1) anti-icing and de-icing systems;
- (2) automatic flight control and auto-pilot systems; and
- (3) weather radar.

(e) Emergency Procedures, Malfunctions and Flight Characteristics

(1) Emergency Procedures and Malfunctions

The pilot shall demonstrate or where demonstration is impractical, show knowledge of, proper procedures for as many of the emergency situations and malfunctions listed below as necessary to determine adequate knowledge and ability:

- (i) fire in flight;**
- (ii) smoke control;**
- (iii) anti-torque control failure and malfunctions;**
- (iv) emergency descent;**
- (v) hydraulic and electrical system failures and malfunctions;**
- (vi) flight instrument system failure and malfunction; and**
- (vii) any emergency procedure included in the flight manual or helicopter operating manual.**

APPENDIX N-B MINIMUM TRAINING TIMES

The following Matrix indicates the minimum ground and flight training time required for initial and recurrent training. Where a flight simulator is used as the training device, it is considered there will be an equal amount of Pilot Not Flying (PNF), training time included in the course. In other words all times shown are Pilot Flying (PF) times and where an aircraft is used for training, the times shown are meant to mean air time and do not include the pilot proficiency check. Ground training times include examination and review. All times are minimum, training shall be to an acceptable standard.

INITIAL	Technical Ground Training (Hours)			Simulator and aircraft training Program (PF)				Aircraft Only
	Basic	Press.	Turbine	Level A	Level B	Level C	A/C	
Single engine	6	.5	4.0					3.0
S.E. Turbine	12	1.0						3.0
M.E. 6 or less	8	1.0	4.0					4.0
M.E. 7 to 9	12	1.0	4.0	4.0			1.5	5.0
M.E. 10 to 19	17	2.0	4.0	6.0	6.0	6.0	2.0	5.0
M.E. Piston 20 +	20	4.0		8.0	8.0	8.0	2.0	6.0
M.E. Turbine 20 +	40			10.0	10.0	10.0	2.0	8.0
R/W Large	40							8.0
R/W Medium	16							4.5
R/W Small	6		4.0					3.0

RECURRENT	Technical Ground Training (Hours)			Simulator and aircraft training Program (PF)				Aircraft Only
	Basic	Press	Turbine	Level A	Level B	Level C	A/C	
Single engine	2.0	.5	.5					1.0
S.E. Turbine	2.0	.5						1.0
M.E. 6 or less	2.0	.5	.5					1.5
M.E. 7 to 9	2.0	.5	.5	2.0			1.0	1.5
M.E. 10 to 19	4.0	.5	5.	4.0	4.0	4.0	1.0	2.0
M.E. Piston 20 +	6.0	.5		4.0	4.0	4.0	1.0	3.0
M.E. Turbine	8.0	.5		4.0	4.0	4.0	1.0	4.0
R/W Large	8.0							3.0
R/W Medium	5.0		.5					2.0
R/W Small	2.0		.5					2.0

Due to the wide variance in some of the training components required by Subpart N, it is not possible to list a minimum time for each component. Each component not listed must include a proposed course duration and will be reviewed by the Director. In making his decision the Director will consider the type of training, scope and size of the company and type of presentation aids being proposed.

MINISTER OF COMMUNICATION

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AGUM GUMELAR, M.Sc,

SALINAN sesuai dengan aslinya
Kepala Biro Hukum dan KSLN

