



Republic of the Philippines  
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

MEMORANDUM CIRCULAR NO. 15-2021

TO : ALL CONCERNED

FROM : THE DIRECTOR GENERAL

SUBJECT : AMENDMENTS TO THE PHILIPPINE CIVIL AVIATION  
REGULATIONS (PCAR) ANNEX 6 PARTS I AND 2  
AMENDMENT 38 AND 45

REFERENCES:

1. Philippine Civil Aviation Regulations Annex 6, Parts 1 and 2.
2. ICAO Annex 6 Parts 1 and 2, Amendment 38 and 45.
3. Board Resolution No. 2012-054 dated 28 September 2012.
4. Regulations Amendment/Revision Procedure.

Pursuant to the powers vested on the Director General of the Civil Aviation Authority of the Philippines under Republic Act No. 9497, otherwise known as the Civil Aviation Authority Act of 2008, and in accordance with the Regulations Amendment/Revision Procedure with Board Resolution No. 2012-054 dated 28 September 2012, I hereby approve the incorporation of ICAO Annex 6, Parts 1 and 2, Amendment 38 and 45 to the Philippine Civil Aviation Regulations.

PART I DEFINITIONS

**Contaminated runway.**†† A runway is contaminated when a significant portion of the runway surface area (whether in isolated areas or not) within the length and width being used is covered by one or more of the substances listed in the runway surface condition descriptors. (††Applicable effective 04 Nov 2021)

*Note.— Further information on runway surface condition descriptors can be found in the Annex 14, Volume I — Definitions.*

**Continuing airworthiness records.** Records which are related to the continuing airworthiness status of an aircraft, engine, propeller or associated part.

**Continuous descent final approach (CDFA).** A technique, consistent with stabilized approach procedures, for flying the final approach segment (FAS) of an instrument non-precision approach



(NPA) procedure as a continuous descent, without level-off, from an altitude/height at or above the final approach fix altitude/height to a point approximately 15 m (50 ft) above the landing runway threshold or the point where the flare maneuver ~~should~~ begins for the type of aircraft flown; for the FAS of an NPA procedure followed by a circling approach, the CDFA technique applies . until circling approach minima (circling OCA/H) or visual flight maneuver altitude/height are reached.

**Cruise relief pilot.** A flight crew member who is assigned to perform pilot tasks during cruise flight, to allow the PIC pilot-in-command or a co-pilot to obtain planned rest.

**Dangerous goods.** Articles or substances which are capable of posing a risk- hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

*Note.— Dangerous goods are classified in Annex 18, Chapter 3 ICAO Technical Instructions*

**Decision altitude (DA) or decision height (DH).** A specified altitude or height in a 3D instrument approach operation at which a missed approach must be initiated if the required visual reference to continue the approach has not been established.

*Note 1.— Decision altitude (DA) is referenced to mean sea level and decision height (DH) is referenced to the threshold elevation.*

*Note 2.— The required visual reference means that section of the visual aids or of the approach area which should have been in view for sufficient time for the pilot to have made an assessment of the aircraft position and rate of change of position, in relation to the desired flight path. In Category III operations with a decision height the required visual reference is that specified for the particular procedure and operation.*

*Note 3.— For convenience where both expressions are used they may be written in the form "decision altitude/height" and abbreviated "DA/H".*

**Dry runway.**†† A runway is considered dry if its surface is free of visible moisture and not contaminated within the area intended to be used. (†† Applicable effective 04 Nov 2021)

**Duty period.** A period which starts when a flight or cabin crew ~~personnel~~ member ~~are~~ is required by an operator to report for or to commence a duty and ends when that person is free from all duties.

**EDTO critical fuel.** The fuel quantity necessary to fly to an en-route alternate aerodrome considering, at the most critical point on the route, the most limiting system failure.

*Note.— (Annex 6 Part I) Attachment C contains guidance on EDTO critical fuel scenarios.*

**Electronic flight bag (EFB).** An electronic information system, comprised of equipment and applications, for flight crew, which allows for the storing, updating, displaying and processing of EFB functions to support flight operations or duties.



**Specific approval.** An approval which is documented in the operations specifications for commercial air transport operations or in the list of specific approvals for general aviation operations.

*Note.— The terms authorization, specific approval, approval and acceptance are further described in (Annex 6 Part 1) Attachment D.*

**State of Registry.** The State on whose register the aircraft is entered.

*Note.— In the case of the registration of aircraft of an international operating agency on other than a national basis, the States constituting the agency are jointly and severally bound to assume the obligations which, under the Chicago Convention, attach to a State of Registry. See, in this regard, the Council Resolution of 14 December 1967 on Nationality and Registration of Aircraft Operated by International Operating Agencies which can be found in Policy and Guidance Material on the Economic Regulation of International Air Transport (Doc 9587).*

**Threshold time.** The range, expressed in time, established by the State of the Operator Authority, to an en-route alternate aerodrome, whereby any time beyond requires an a specific approval for EDTO from the State of the Operator Authority.

**Visual meteorological conditions (VMC).** Meteorological conditions expressed in terms of visibility, distance from cloud, and ceiling\*, equal to or better than specified minima.

*Note.— The specified minima are contained in Chapter 4 of Annex 2.*

**Wet runway.**<sup>††</sup> The runway surface is covered by any visible dampness or water up to and including 3 mm deep within the intended area of use. (<sup>††</sup>Applicable effective 04 Nov 2021)

#### 8.5.1.1 AUTHORITY AND RESPONSIBILITY OF THE PIC

(f) The pilot-in-command shall ensure that the checklists specified in 8.5.1.9 are complied with in detail.

(g) The pilot-in-command shall be responsible for notifying the nearest appropriate authority by the quickest available means of any accident involving the aeroplane, resulting in serious injury or death of any person or substantial damage to the aeroplane or property.

*Note.— A definition of the term “serious injury” is contained in Annex 13.*

#### 8.5.1.21 REPORTING OF HAZARDOUS CONDITIONS

(b) Meteorological Observation.



*Note.— The procedures for making meteorological observations on board aircraft in flight and for recording and reporting them are contained in Annex 3, the PANS-ATM (Doc 4444) and the appropriate Regional Supplementary Procedures (Doc 7030).*

- (1) As of 5 November 2021, the pilot-in-command shall report the runway braking action special air-report (AIREP) when the runway braking action encountered is not as good as reported.

*Note: The procedures for making special air-reports regarding runway braking action are contained in the PANS-ATM (Doc 4444), Chapter 4 and Appendix 1.*

- (c) Hazardous flight conditions encountered, other than those associated with meteorological conditions, shall be reported to the appropriate aeronautical station as soon as possible. The reports so rendered shall give such details as may be pertinent to the safety of other aircraft.

#### **8.5.1.30 SAFEGUARDING OF CABIN CREW AND PASSENGERS IN PRESSURIZED AIRPLANES IN THE EVENT OF LOSS OF PRESSURIZATION**

- (a) Cabin crew ~~should~~ shall be safeguarded so as to ensure reasonable probability of their retaining consciousness during any emergency descent which may be necessary in the event of loss of pressurization and, in addition, they should have such means of protection as will enable them to administer first aid to passengers during stabilized flight following the emergency. Passengers should be safeguarded by such devices or operational procedures as will ensure reasonable probability of their surviving the effects of hypoxia in the event of loss of pressurization.

*Note.— It is not envisaged that cabin crew will always be able to provide assistance to passengers during emergency descent procedures which may be required in the event of loss of pressurization.*

#### **8.5.1.6 FLIGHT CREW MEMBER USE OF SEAT BELTS AND SAFETY HARNESSSES**

- (b) Safety harness. Any flight crew member occupying a pilot's seat shall keep the safety harness fastened during the take-off and landing phases; all other flight crew members shall keep their safety harnesses fastened during the take-off and landing phases unless the shoulder straps interfere with the performance of their duties, in which case the shoulder straps may be unfastened but the seat belt must remain fastened.

*Note.— Safety harness includes shoulder straps and a seat belt which may be used independently.*



#### 8.5.2.21 IN-FLIGHT OPERATIONAL INSTRUCTIONS

- (g) Operational instructions involving a change in the ATS flight plan shall, when practicable, be coordinated with the appropriate ATS unit before transmission to the airplane.

*Note.— When the above coordination has not been possible, operational instructions do not relieve a pilot of the responsibility for obtaining an appropriate clearance from an ATS unit, if applicable, before making a change in flight plan.*

#### 8.6.2.13.2 OYGEN PLANNING AND CONTINGENCY FACTORS

*Note.— Approximate altitudes in the Standard Atmosphere corresponding to the values of absolute pressure used in the text are as follows:*

Absolute Pressure	Meters	Feet
700 hPa	3000	10000
620 hPa	4000	13000
376 hPa	7600	25000

#### 8.6.2.21 TIME CAPABILITY OF CARGO COMPARTMENT FIRE SUPPRESSION SYSTEM

- (1) No person may plan a flight if the diversion time to an aerodrome where a safe landing could be made exceeds the cargo compartment fire suppression time capability of the airplane, when one is identified in the relevant airplane documentation, unless the Authority specifies a reduction of the operational safety margin.

*Note 1.— Cargo compartment fire suppression time capabilities will be identified in the relevant airplane documentation when they are to be considered for the operation.*

*Note 2.— Fifteen minutes is an operational safety margin commonly retained for that purpose.*

*Note 3.— Refer to ICAO Annex 6 Part 1 Chapter 4, 4.7 and Attachment B for considerations of time capability of cargo compartment fire suppression systems for airplanes engaged in EDTO.*

#### 8.7 AIRCRAFT OPERATING AND PERFORMANCE LIMITATIONS

##### 8.7.1.1 APPLICABILITY

- (a) Each civil aircraft shall be operated in accordance with the comprehensive code of performance established by the Authority and in compliance with the acceptable standards, as prescribed in CAR Part 5, Subpart 5.4.1.2 and this Subpart.



#### 8.7.1.2 GENERAL

- (h) For aeroplanes for which Parts IIIA and IIIB of ICAO Annex 8 are not applicable because of the exemption provided for in Article 41 of the Convention, the State of Registry shall ensure that the level of performance specified in 8.7.1.5 shall be met as far as practicable.

#### 8.7.1.5 APPLICABLE TO AEROPLANES CERTIFICATED IN ACCORDANCE WITH PARTS IIIA AND IIIB OF ICAO ANNEX 8

- (a) The Standards contained in paragraph (b) to paragraph (l) inclusive are applicable to the large aeroplanes to which Parts IIIA and IIIB of Annex 8 are applicable.

*Note.— The following Standards do not include quantitative specifications comparable to those found in national airworthiness codes. In accordance with 8.7.1.1, they are to be supplemented by national requirements prepared by Contracting States.*

- (b) The level of performance defined by the appropriate parts of the comprehensive and detailed national code referred to in 8.7.1.1 for the aeroplanes designated in paragraph (a) shall be at least substantially equivalent to the overall level embodied in the Standards of this chapter.

*Note.— ICAO Annex 6, Part 1, Attachment B contains guidance material which indicates the level of performance intended by the Standards and Recommended Practices of this subpart.*

- (i) An aeroplane shall be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.
- (j) The Authority shall take such precautions as are reasonably possible to ensure that the general level of safety contemplated by these provisions is maintained under all expected operating conditions, including those not covered specifically by the provisions of this subpart.
- (k) A flight shall not be commenced unless the performance information provided in the flight manual, supplemented as necessary with other data acceptable to the State of the Operator, indicates that the Standards of paragraphs (f) to (l) can be complied with for the flight to be undertaken.
- (l) Until 3 November 2021, in applying the Standards of this subpart, account shall be taken of all factors that significantly affect the performance of the the aeroplane, including but not limited to: the mass of the aeroplane, the operating procedures, the pressure-altitude appropriate to the elevation of the aerodrome, the ambient temperature, the wind, the runway slope, and surface conditions of the runway i.e., presence of snow, slush, water, and/or ice for landplanes, water surface condition for seaplanes. Such factors shall be taken into account directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the



scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aeroplane is being operated.

- (m) As of 4 November 2021, in applying the Standards of this chapter, account shall be taken of all factors that significantly affect the performance of the aeroplane, including but not limited to: the mass of the aeroplane, the operating procedures, the pressure-altitude appropriate to the elevation of the aerodrome, the runway slope, the ambient temperature, the wind, and surface conditions of the runway at the expected time of use, i.e. presence of snow, slush, water, and/or ice for landplanes, water surface condition for seaplanes. Such factors shall be taken into account directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aeroplane is being operated.

*Note.— Guidelines for using runway surface condition information on board aircraft in accordance with 8.8.1.33 are contained in the Aeroplane Performance Manual (Doc 10064).*

(n) Mass Limitations

- (1) The mass of the aeroplane at the start of take-off shall not exceed the mass at which paragraph (i) is complied with, or the mass at which paragraphs (j), (k) and (l) are complied with, allowing for expected reductions in mass as the flight proceeds, and for such fuel jettisoning as is envisaged in applying paragraphs (j) and (k) and, in respect of alternate aerodromes, paragraphs (h)(3) and (l).
- (2) In no case shall the mass at the start of take-off exceed the maximum take-off mass specified in the flight manual for the pressure-altitude appropriate to the elevation of the aerodrome, and, if used as a parameter to determine the maximum take-off mass, any other local atmospheric condition.
- (3) In no case shall the estimated mass for the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the maximum landing mass specified in the flight manual for the pressure-altitude appropriate to the elevation of those aerodromes, and if used as a parameter to determine the maximum landing mass, any other local atmospheric condition.
- (4) In no case shall the mass at the start of take-off, or at the expected time of landing at the aerodrome of intended landing and at any destination alternate aerodrome, exceed the relevant maximum masses at which compliance has been demonstrated with the applicable noise certification Standards in ICAO Annex 16, Volume I, unless otherwise authorized in exceptional circumstances for a certain aerodrome or a runway where there is no noise disturbance problem, by the competent authority of the State in which the aerodrome is situated.



(i) Take-off.

- (1) The aeroplane shall be able, in the event of a critical engine failing, or for other reasons, at any point in the take-off, either to discontinue the take-off and stop within the accelerate-stop distance available, or to continue the takeoff and clear all obstacles along the flight path by an adequate vertical or horizontal distance until the aeroplane is in a position to comply with paragraph (k). When determining the resulting take-off obstacle accountability area, the operating conditions, such as the crosswind component and navigation accuracy, must be taken into account.

*Note.— ICAO Annex 6, Part 1, Attachment B contains guidance on the vertical and horizontal distances that are considered adequate to show compliance with this Standard.*

- (2) In determining the length of the runway available, account shall be taken of the loss, if any, of runway length due to alignment of the aeroplane prior to take-off.

- (j) *En route — one engine inoperative.* The aeroplane shall be able, in the event of the critical engine becoming inoperative at any point along the route or planned diversion therefrom, to continue the flight to an aerodrome at which the Standard of paragraph (1) can be met, without flying below the minimum flight altitude at any point.

- (k) *En route — two engines inoperative.* In the case of aeroplanes having three or more engines, on any part of a route where the location of en-route alternate aerodromes and the total duration of the flight are such that the probability of a second engine becoming inoperative must be allowed for if the general level of safety implied by the Standards of this subpart is to be maintained, the aeroplane shall be able, in the event of any two engines becoming inoperative, to continue the flight to an en-route alternate aerodrome and land.

- (l) *Landing.* The aeroplane shall, at the aerodrome of intended landing and at any alternate aerodrome, after clearing all obstacles in the approach path by a safe margin, be able to land, with assurance that it can come to a stop or, for a seaplane, to a satisfactorily low speed, within the landing distance available. Allowance shall be made for expected variations in the approach and landing techniques, if such allowance has not been made in the scheduling of performance data.

*Note.— As of 4 November 2021, guidelines on appropriate margins for the “at time of landing” distance assessment is contained in the Aeroplane Performance Manual (ICAO Doc 10064).*

#### 8.7.1.6 OBSTACLE DATA

- (a) Obstacle data shall be provided to enable the operator to develop procedures to comply with 8.7.1.5 (j).



*Note.*— See ICAO Annex 4 and Annex 15, Chapter 5 and Appendix 1 and the ICAO Procedures for Air Navigation Services — Aeronautical Information Management (PANS-AIM), Chapter 5 for methods of presentation of certain obstacle data.

- (b) The operator shall take account of charting accuracy when assessing compliance with 8.7.1.5 (i).

#### **8.8.1.29 NOISE ABATEMENT PROCEDURES**

- (b) Unless otherwise directed by the Authority, the noise abatement procedures specified by an operator for any one aircraft type shall be the same for all airports.

*Note.*— A single procedure may not satisfy the requirements at some aerodromes.

- (d) Airplane operating procedures for noise abatement shall ~~should~~ comply with the provisions of ICAO PANS-OPS (Doc 8168), Volume I.

#### **8.8.1.32 AIRPLANE OPERATING PROCEDURES FOR RATES OF CLIMB AND DESCENT**

Unless otherwise specified in an air traffic control instruction, to avoid unnecessary airborne collision avoidance system (ACAS II) resolution advisories in aircraft at or approaching adjacent altitudes or flight levels, operators should specify procedures by which an aeroplane climbing or descending to an assigned altitude or flight level, especially with an autopilot engaged, may do so at a rate less than 8 m/sec (26 ft)/sec or 450 m (1500 ft)/min (depending on the instrumentation available throughout the last 300 m (1000 ft) of climb or descent to the assigned level when the pilot is made aware of another aircraft at or approaching an adjacent altitude or flight level.

*Note.*— Material concerning the development of these procedures is contained in the PANS-OPS (Doc 8168) Volume I, Part III, Section 3, Chapter 3.

#### **8.8.1.33 AEROPLANE OPERATING PROCEDURES FOR LANDING PERFORMANCE**

- (a) As of 4 November 2021, an approach to land shall not be continued below 300 m (1 000 ft) above aerodrome elevation unless the pilot-in-command is satisfied that, with the runway surface condition information available, the aeroplane performance information indicates that a safe landing can be made.

*Note 1.*— The procedures used by aerodromes to assess and report runway surface conditions are contained in the PANS-Aerodromes (Doc 9981) and those for using runway surface



condition information on board aircraft are in the *Aeroplane Performance Manual (Doc 10064)*.

*Note 2.— Guidance on development of aeroplane performance information is contained in the Aeroplane Performance Manual (Doc 10064).*

#### **8.8.4.1 APPLICABILITY**

- (b) Airplanes: One or more instrument approach procedures designed to support instrument approach operations shall be approved and promulgated by the Authority in which the aerodrome is located to serve each instrument runway or aerodrome utilized for instrument flight operations.

*Note 1. Information for pilots on flight procedure parameters and operational procedures is contained in ICAO Doc 8168, PANS-OPS, Volume I. Criteria for the construction of visual and instrument flight procedures are contained in ICAO DOC 8186, PANS-OPS, Volume II. Obstacle clearance criteria and procedures used in certain States may differ from PANS-OPS, and knowledge of these differences is important for safety reasons.*

*Note 2.— See ICAO Annex 6, Part 1 4.2.8.3 for instrument approach operation classifications.*

#### **8.8.4.11 CONTINUATION OF IFR FLIGHT TOWARD A DESTINATION**

- (b) For General Aviation operations:

A flight shall not be continued towards the airport/heliport of intended landing unless the latest available meteorological information indicates that conditions at that airport/heliport, or at least one destination alternate airport/heliport, will, at the estimated time of arrival, be at or above the specified airport/heliport operating minima in accordance with Subpart 8.8.1.7 (b).

#### **8.8.4.13 CONTINUATION OF AN INSTRUMENT APPROACH**

- d) If, after entering the final approach segment or after descending below 300 m (1,000 ft.) above the aerodrome elevation, the reported visibility or controlling RVR falls below the specified minimum, the approach may be continued to DA/H or MDA/H. In any case, an aeroplane shall not continue approach-to-land any aerodrome beyond a point at which the limits of the operating minima specified for that aerodrome would be infringed.

*Note.— Controlling RVR means the reported values of one or more RVR reporting locations (touchdown, mid-point and stop-end) used to determine ~~determined~~ whether operating minima*



are or are not met. Where RVR is used, the controlling RVR is the touchdown RVR, unless otherwise specified by the Authority.

#### **8.8.4.23 ADDITIONAL REQUIREMENTS FOR SINGLE-ENGINE TURBINE POWERED AIRPLANES AT NIGHT AND/OR IN INSTRUMENT METEOROLOGICAL FLIGHT RULES (IFR) CONDITIONS (IMC)**

- (a) In approving operations by single-engine turbine-powered airplanes at night and/or in IMC, the Authority shall ensure that the airworthiness certification of the airplane is appropriate and that the overall level of safety intended by the provisions of ICAO Annexes 6 and 8 is provided by:
- (3) equipment and other requirements provided in accordance with ICAO Annex 6, Part 1, Appendix 3 to Annex-6.

#### **8.9.1.2 REFUELING WITH PASSENGERS ON BOARD**

- (2) two-way communication is maintained by the aircraft's intercommunication system or other suitable means between the ground crew supervising the refueling and the qualified personnel on board the aircraft.

*Note 1.— The provisions of 3.4.3.5.1 do not necessarily require the deployment of integral aeroplane stairs or the opening of emergency exits as a prerequisite to refuelling.*

*Note 2.— Provisions concerning aircraft refuelling are contained in Annex 14, Volume I, and guidance on safe refuelling practices is contained in the Airport Services Manual (Doc 9137), Parts 1 and 8.*

*Note 3.— Additional precautions are required when refuelling with fuels other than aviation kerosene or when refuelling results in a mixture of aviation kerosene with other aviation turbine fuels, or when an open line is used.*

– End of Amendments –

**Separability Clause** – If, for any reason, any provision of this Memorandum Circular is declared invalid or unconstitutional, the other part or parts thereof which are not affected thereby shall continue to be in full force and effect.

**Repealing Clause** – All order, rules, regulations and issuances, or parts thereof which are inconsistent with this Memorandum Circular are hereby repealed, superseded or modified accordingly.



***Determination Of Changes*** – To highlight the amendments and/or revisions in the Memorandum Circular, the deleted text shall be shown with strikethrough and the new inserted text shall be highlighted with grey shading, as illustrated below:

1. Text deleted: ~~Text to be deleted is shown with a line through it.~~
2. New text inserted: New text highlighted with grey shading.
3. New text replacing existing text: ~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading.

***Effectivity*** – Fifteen (15) days after compliance with the requisite publication in a single newspaper of general circulation and a copy filed with the U.P. Law Center – Office of the National Administrative Register, these amendments shall be incorporated to the Philippine CAR, series of 2019.

Signed this 20 day of APR 2021, CAAP, Pasay City.

  
CAPTAIN JIM C. SYDIONGCO  
Director General