



Republic of the Philippines
Department of Transportation

CIVIL AVIATION AUTHORITY OF THE PHILIPPINES
Office of the Director General

MEMORANDUM CIRCULAR NO.: 42-16

TO : ALL CONCERNED
FROM : DIRECTOR GENERAL
SUBJECT : AMENDMENTS TO THE PHILIPPINE CIVIL AVIATION REGULATIONS PARTS 1, 8 AND 9

REFERENCES:

1. Philippine Civil Aviation Regulations Parts 1,8 and 9
2. ICAO Annex 6 Part 1
3. ICAO Annex 6 part 1; Amendment 37-B
4. Regulations Amendment Procedures
5. Board Resolution No.: 2012-054 dated 28 September 2013

Pursuant to the powers vested on the Director General of the Civil Aviation Authority of the Philippines under Republic Act 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 2013, I hereby approve the incorporation of ICAO Annex 6 Part 1, Amendment 37-B to the Philippine Civil Aviation Regulations.

AMENDED REGULATIONS:

PCAR PART 1: APPENDIX A DEFINITIONS

AND

PCAR PART 8: DEFINITIONS

Airport operating minima. The limits of usability of an airport for:

- (a) ***take-off***, expressed in terms of runway visual range and/or visibility and, if necessary, cloud conditions;
- (b) ***landing in 2D instrument approach*** operations, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height (MDA/H) and, if necessary, cloud conditions; and
- (c) ***landing in 3D instrument approach*** operations expressed in terms of visibility and/or runway visual range and decision altitude/height (DA/H) appropriate to the type and/or category of the operation.

Continuous descent final approach (CDFA). A technique, consistent with stabilized approach procedures, for flying the final approach segment of a non-

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precision instrument approach 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 begin for the type of aircraft flown.

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.

Instrument approach operations. An approach and landing using instrument for navigation guidance based on an instrument approach procedure. There are two methods for executing instrument approach operations:

- (a) a two-dimensional (2D) instrument approach operation, using lateral navigation guidance only; and
- (b) a three-dimensional (3D) instrument approach operation, using both lateral and vertical navigation guidance.

Note: *Lateral and vertical navigation guidance refers to the guidance provided either by:*

- a) a ground-based radio navigation aid; or
- b) computer-generated navigation data from ground-based, space-based, self-contained navigation aids or a combination of these.

Instrument approach procedure. A series of predetermined maneuvers by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply. Instrument approach procedures are classified as follows:

Non-precision approach (NPA) procedure. An instrument approach procedure designed for 2D instrument approach operations Type A.

Note: *Non-precision procedures may be flown using a continuous descent final approach technique (CDFA). CDFA with advisory VNAV guidance calculated by on-board equipment (see PANS-OPS (Doc 8168), Volume I, part I, Section 4, Chapter I, paragraph 1.8.1) are considered 3D instrument approach operations. CDFA with manual calculation of the required rate of descent are considered 2D instrument approach operations. For more information on CDFA refer to PANS-OPS (Doc 8168), Volume I, Section 1.7 and 1.8.*

Approach procedure with vertical guidance (APV). A performance-based on navigation systems (ILS, MLS, GLS and SBAS Cat I) designed for 3D instrument approach operations Type A or B.

Note: *Refer to Subsection 8.8.1.7 paragraph (f) for instrument approach operation types.*

Minimum Descent Altitude (MDA) or minimum descent height (MDH). A specified altitude or height in a 2D instrument approach operation or circling approach operation below which descent must not be made without the required visual reference.

Obstacle Clearance Altitude (OCA) or obstacle clearance height (OCH). The lowest altitude or the lowest height above the elevation of the relevant runway threshold or the aerodrome elevation as applicable, used in establishing compliance with appropriate obstacle clearance criteria.

Note: *Obstacle clearance altitude is referenced to mean sea level and obstacle clearance height is referenced to the threshold elevation or in the case of non-precision approach procedures to the aerodrome elevation or the threshold elevation if that is more than 2 m (7 ft) below the aerodrome elevation. An obstacle clearance height for a circling approach procedure is referenced to the aerodrome elevation.*

PCAR PART 8

8.8.1.7 INSTRUMENT APPROACH OPERATING MINIMA

- (d) **Threshold crossing height for 3D instrument approaches:** An operator shall establish operational procedures designed to ensure that an aircraft being used to conduct 3D instrument approach operations crosses the threshold by a safe margin, with the aircraft in the landing configuration and attitude.
- (e) See IS 8.8.1.7 for requirements for Instrument Approach Operating Minima.
- (f) **Instrument approach operations shall be classified based on the designed lowest operating minima below which an approach operation shall only be continued with the required visual reference as follows:**
 - (1) **Type A:** a minimum descent height or decision height at or above 75 m (250 ft); and
 - (2) **Type B:** a decision height below 75 m (250 ft). Type B instrument approach operations are categorized as:
 - (A) **Category I (CAT I):** a decision height not lower than 60 m (200 ft) and with either a visibility not less than 800 m or a runway visual range not less than 550 m;
 - (B) **Category II (CAT II):** a decision height lower than 60 m (200 ft), but not lower than 30 m (100 ft) and a runway visual range not less than 300 m;
 - (C) **Category IIIA (CAT IIIA):** a decision height lower than 30 m (100 ft) or no decision height and a runway visual range not less than 175 m;
 - (D) **Category IIIB (CAT IIIB):** a decision height lower than 15 m (50 ft), or no decision height and a runway visual range less than 175 m but not less than 50 m; and
 - (E) **Category IIIC (CAT IIIC):** no decision height and no runway visual range limitations.
- (g) **The operating minima for 2D instrument approach operations using instrument approach procedures shall be determined by establishing a minimum descent altitude (MDA) or minimum descent height (MDH), minimum visibility and, if necessary, cloud conditions.**
- (h) **The operating minima for 3D instrument approach operations using instrument approach procedures shall be determined by establishing a decision altitude (DA) or decision height (DH) and the minimum visibility or RVR.**

Note 1: *Where decision height (DH) and runway visual range (RVR) fall into different categories of operation, the instrument approach operation would be conducted in*

accordance with the requirements of the most demanding category (e.g. an operation with a DH in the range of CAT IIIA but with an RVR in the range of CAT IIIB would be considered a CAT IIIB operation or an operation with a DH in the range of CAT II but with an RVR in the range of CAT I would be considered a CAT II operation).

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 the case of a circling approach operation the required visual reference is the runway environment.

Note 3: Guidance on approach classification as it relates to instrument approach operations, procedures, runways and navigation systems is contained in the All Weather Operations Manual (Doc 9365).

Note 4: For guidance on applying a continuous descent final approach (CDFA) flight technique on non-precision approach procedures refers to PANS-OPS (Doc 8168), Volume I, Section 1.7.

8.8.4 IFR FLIGHT RULES

8.8.4.1 APPLICABILITY

(a) All aircraft operated in accordance with instrument flight rules shall comply with the instrument flight procedures approved by the State in which the operation will take place.

Note 1. –See Subsection 8.8.1.7 paragraph (f) for instrument approach operation classifications.

Note 2. –Information for pilots on flight procedure parameters and operational procedures is contained in PANS-OPS (Doc 8168), Volume I. Criteria for the construction of visual and instrument flight procedures are contained in PANS-OPS (Doc 8168), 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.

(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.

IS: 9.3.1.2 OPERATIONS MANUAL (d)

8.3 FLIGHT PROCEDURES

8.3.1 NAVIGATION PROCEDURES

(e) Allocation of flight crew duties and procedures for the management of crew workload during night and IMC instrument approach operations.

IS: 9.1.1.7 AIR OPERATOR CERTIFICATE (AOC) AND ASSOCIATED OPERATIONS SPECIFICATIONS (c)

- (10) Insertion of applicable instrument approach operation classified: Type B (Cat I, II, IIIA, IIIB or IIIC). Insertion of minimum RVR in meters and Decision Height in feet. One line is used per listed approach category.

DELETED REGULATIONS

PCAR Part 1 Appendix A & PCAR Part 8 Definitions

~~(d) landing in non-precision approach and landing operations, expressed in terms of visibility and/or runway visual range, minimum descent altitude/height MDA/H and, if necessary, cloud conditions.~~

~~**Approach and landing operations using instrument approach procedures.** Instrument approach and landing operations are classified as follows:~~

~~**Non-precision approach and landing operations.** An instrument approach and landing which utilizes lateral guidance but does not utilize vertical guidance.~~

~~**Approach and landing operations with vertical guidance.** An instrument approach and landing which utilizes lateral and vertical guidance but does not meet the requirements established for precision approach and landing operations.~~

~~**Precision approach and landing operations.** An instrument approach and landing using precision lateral and vertical guidance with minima as determined by the category of operation.~~

~~**Categories of precision approach and landing operations:**~~

~~(A) **Category I (CAT I) operation.** A precision instrument approach and landing with:~~

~~(aa) a decision height not lower than 60 m (200 ft); and~~

~~(bb) with either a visibility not less than 800 m or a runway visual range (RVR) not less than 550 m.~~

~~(B) **Category II (CAT II) operation.** A precision instrument approach and landing with:~~

~~(aa) a decision height lower than 60 m (200 ft), but not lower than 30 m (100 ft);~~

~~(bb) and a RVR not less than 300 m.~~

~~(C) **Category IIIA (CAT IIIA) operation.** A precision instrument approach and landing with:~~

~~(aa) a decision height lower than 30 m (100 ft) or no decision height; and~~

~~(bb) a runway visual range not less than 175 m.~~

~~(D) **Category IIIB (CAT IIIB) operation.** A precision instrument approach and landing with:~~

~~(aa) a decision height lower than 15 m (50 ft) or no decision height; and~~

~~(bb) a runway visual range less than 175 m but not less than 50 m.~~

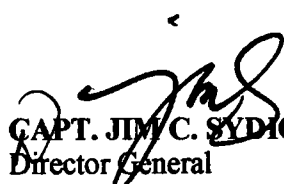
(E) Category IIIC (CAT IIIC) operation. A precision instrument approach and landing with no decision height and no RVR limitations.

~~Note: Where decision height ((DH) and runway visual range (RVR) fall into different categories of operation, the instrument approach and landing operation would be conducted in accordance with the requirements of the most demanding category (e.g.: an operation with a DH in the range of Cat IIIA but with an RVR in the range of Cat IIIB would be considered a Cat IIIB operation or an operation with a DH in the range of Cat II but with an RVR in the range of Cat I would be considered a Cat II operation).~~

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 Parts 1, 8 and 9, series of 2016 and shall supersede any memoranda, regulations and directives in conflict herewith.

So Ordered. Signed this 13th day of December 2016, CAAP, Pasay City


CAPT. JIM C. SYDIONGCO
Director General