Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

MEMORANDUM CIRCULAR NO. 015-2023

TO : ALL CONCERNED

FROM : THE DIRECTOR GENERAL

SUBJECT : AMENDMENT TO PHILIPPINE CIVIL AVIATION REGULATIONS ANNEX 6, AMENDMENT 47

REFERENCES:

1. Philippine Civil Aviation Regulation Parts 1,7,8, and 9.
2. Regulations Amendment/Revision Procedure.
3. Board Resolution No. 2012-054 dated 28 September 2012.

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 the following amendments to the Philippine Civil Aviation Regulations Part 1, 7, 8, and 9.

AMENDED REGULATIONS:

PCAR PART 1

Advanced aircraft. An aircraft with equipment in addition to that required for a basic aircraft for a given take-off, approach or landing operation.

Basic aircraft. An aircraft which has the minimum equipment required to perform the intended take-off, approach or landing operation.

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.— ~~Attachment C~~ Guidance on EDTO critical fuel scenarios is contained in the Extended Diversion Time Operations Manual (Doc 10085) ~~contains guidance on EDTO critical fuel scenarios.~~

Operational credit. A credit authorized for operations with an advanced aircraft enabling a lower aerodrome operating minimum than would normally be authorized for a basic aircraft, based upon the performance of advanced aircraft systems utilizing the available external infrastructure.

Performance-based aerodrome operating minimum (PBAOM). A lower aerodrome operating minimum, for a given take-off, approach or landing operation, than is available when using a basic aircraft.

Note 1.— The PBAOM is derived by considering the combined capabilities of the aircraft and available ground facilities. Additional guidance material on PBAOM may be found in the Manual of All-Weather Operations (Doc 9365).

Note 2. — PBAOM may be based on operational credits.

Note 3.— PBAOM are not limited to PBN operations.

PART 7

7.2.11 AIRPLANES EQUIPPED WITH AUTOMATIC LANDING SYSTEMS, A HEAD-UP DISPLAYS (HUD) OR EQUIVALENT DISPLAYS, ENHANCED VISION SYSTEMS (EVS), SYNTHETIC VISION SYSTEMS (SVS) AND/OR COMBINED VISION SYSTEMS (CVS)

(a) Where airplanes are equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS, or any combination of those systems into a hybrid system, criteria for the use of such systems for the safe operation of an airplane shall be ~~approved~~ established by the Authority.

Note.-Information regarding, automatic landing systems, HUD or equivalent displays, ~~including references to RTCA and EUROCAE documents~~ EVS,SVS or CVS, is contained in the Manual of All-Weather Operations (Doc 9365).

~~(b) The use of the automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS, shall comply with the following~~

~~(1) the equipment meets the airworthiness certification requirements;~~

~~(2) the operator has carried out a safety risk assessment of the operations supported by the automatic landing systems, a HUD or equivalent displays, EVS, SVS, or CVS;~~

~~(3) the operator has established and documented the procedures for the use of, and training requirements for, automatic landing systems, a HUD or equivalent displays, EVS,SVS or CVS.~~

~~*Note 1.-Guidance on safety risk assessments is contained in the Safety Management Manual (SMM)(Doc 9859).*~~
~~*Note 2-Guidance on operational approvals is contained in ICAO Annex 6 Part 1 Attachment I.*~~

7.2.12 TURBINE AEROPLANE - RUNWAY OVERRUN AWARENESS AND ALERTING SYSTEM (ROAAS)

(a) All turbine-engined aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 1 January 2026, shall be equipped with a runway overrun awareness and alerting system (ROAAS).

Note.— Guidance material for ROAAS design is contained in EUROCAE ED-250, Minimum Operation Performance Specification (MOPS) for Runway Overrun Awareness and Alerting System (ROAAS), or equivalent documents.

7.6.5 GROUND PROXIMITY WARNING SYSTEM

(a) [AAC] No person may operate an airplane with a maximum certified take-off mass in excess of 5,700 kg, unless it is equipped with a ground proximity warning system which has a forward looking terrain avoidance function.

(1) All turbine-engined aeroplanes of a maximum certificated take-off mass of 5 700 kg or less and authorized to carry more than five but not more than nine passengers for which the individual certificate of airworthiness is first issued on or after 1 January 2026, shall be equipped with a ground proximity warning system which provides the warnings of Subsection 7.6.5 paragraph (c) , warning of unsafe terrain clearance and a forward looking terrain avoidance function.

7.7.1.1 CONSTRUCTION AND INSTALLATION

(e) The flight recorder system manufacturer shall provide the appropriate certificating authority with the following information in respect of the flight recorder systems:

(1) manufacturer's operating instructions, equipment limitations and installation procedures;

(2) parameter origin or source and equations which relate counts to units of measurement;

(3) manufacturer's test reports and

(4) detailed information to ensure the continued serviceability of the flight recorder system.

(f) The holder of the airworthiness approval for the installation design of the flight recorder system shall make available the relevant continuing airworthiness information to the operator of the airplane to be incorporated in the continuing airworthiness maintenance program. This continuing airworthiness information shall cover in detail all the tasks required to ensure the continued serviceability of the flight recorder system.

Note 1.— The flight recorder system is composed of the flight recorder as well as any dedicated sensors, hardware and software that provide information required per IS 7.7.2.1 (A) and IS 7.7.2.1 (B).

Note 2.— Conditions related to the continued serviceability of a flight recorder system are defined in IS 7.7.1.3. The Manual on Flight Recorder System Maintenance (FRSM) (Doc 10104) provides guidance on maintenance tasks associated with flight recorder systems.

7.8.16 INDIVIDUAL FLOTATION DEVICES

(a) Landplanes including helicopters.

(1) [AAC] One life-jacket or equivalent flotation device equipped with a means of electric illumination shall be carried for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

Note 1. —information regarding the acceptable means of compliance with this Standard, particularly in the case of infants, can be found, in the Guidance on the preparation of an Operations Manual (Doc 10153), Chapter11 Attachment D.

IS: 7.7.1.3 CONTINUED SERVICEABILITY AND INSPECTION OF FLIGHT RECORDER SYSTEMS

(e) The operator shall make available a report of the recording system inspection upon request by the CAAP for monitoring purposes.

(1) Calibration of the FDR system: for those parameters which have sensors dedicated only to the FDR and are not checked by other means, recalibration shall be carried out ~~at least every five years or in accordance with the recommendations of the sensor manufacturer to~~ at an interval determined by the continuing airworthiness information for the FDR system. In the absence of such information, a recalibration shall be carried out at least every five years. The recalibration shall determine any discrepancies in the engineering conversion routines for the mandatory parameters and to ensure that parameters are being recorded within the calibration tolerances; and

(2) when the parameters of altitude and airspeed are provided by sensors that are dedicated to the FDR system, there shall be a recalibration performed at an interval determined by the continuing airworthiness information for the FDR system. In the absence of such information, a recalibration shall be carried out ~~as recommended by the sensor manufacturer, or~~ at least every two years.

PART 8

8.2.2 [AOC] AIRCRAFT TRACKING

(c) An Operator shall track the position of an airplane through automated reporting at least every 15 minutes for the portion(s) of the inflight operation(s) that is planned in an oceanic area(s) under the following conditions:

(2) where an ATS unit obtains airplane position information at greater than 15 minutes intervals.

Note 1.- Oceanic area- for the purpose of aircraft tracking is the airspace which overlies waters outside the territory of the Philippines.

Note 2.- See CAR-ANS Part 11.2, for coordination between the operator and air traffic services providers regarding position report messages.

Note 3.— Operational procedures for monitoring the aircraft tracking information are contained in PANS-OPS, Volume III, Section 10.

(e) An operator shall establish procedures approved by the Authority for the retention of aircraft tracking data to assist SAR in determining the last known position of the aircraft.

Note 1. – Refer to PCAR Part 9.1.1.4 for operator responsibilities when using third parties for the conduct of aircraft tracking under PCAR.

Note 2.— Operational procedures for monitoring and making position information of a flight in distress available to the appropriate organizations in a timely manner are contained in PANS-OPS, Volume III, Section 10.

8.3.1 NAVIGATION PROCEDURES

(d) Instructions and training requirements for the use of automatic landing system ~~head-up displays~~ (HUD or equivalent displays) and ~~enhanced vision systems~~ (EVS), SVS or CVS equipment as applicable.

8.6.2.11 REQUIREMENTS FOR EXTENDED DIVERSION TIME OPERATIONS - AIRPLANES [AOC]

(b) In requesting EDTO approval, each AOC holder shall show to the satisfaction of the Authority that:

(1) For airplanes:

(i) For all airplanes,

(A) the ~~most limiting~~ operator has in place procedures to prevent the aeroplane being dispatched on a route with diversion times beyond the capability of EDTO significant system time limitation, if any indicated in the Airplane Flight Manual (directly or by reference) ~~and relevant to that particular operation is not exceeded~~; and

(B) the additional fuel required by Subpart 8.6.2.15 shall include the fuel necessary to comply with the EDTO critical fuel scenario as established by the Authority.

Note.— Guidance on compliance with the requirements of this provision is the Extended Diversion Time Operations Manual (Doc 10085).

(ii) For airplanes with two or more turbine engines, the airplanes EDTO certified and has verified the–

(D) Crew training programs; for two power-unit airplanes are consistent with the level of safety required for current extended range of operations with the three and four unit turbine-powered airplanes.

Note. — Guidance on the conditions to be used when converting EDTO significant system time limitations to distances and on the consideration of the EDTO system time limitations at dispatch the Extended Diversion Time Operations Manual (Doc 10085).

(2) It has conducted a safety risk assessment which demonstrates how an equivalent level of safety will be maintained, taking into account the following:

(v) Specific mitigation measures

Note.— Guidance on the specific safety risk assessment is contained in the Extended Diversion Time Operations Manual (Doc 10085).

(e) No AOC holder shall conduct operations beyond 60 minutes, from a point on a route to an en-route alternate aerodrome unless it ensures that:

(1) For all airplanes;

(i) En-route alternate aerodromes are identified; and

(ii) The most up-to-date information is provided to the flight crew on identified en-route alternate aerodromes, including operational status and meteorological conditions;

Note.— Guidance on compliance with the requirements of these provisions is contained in the Extended Diversion Time Operations Manual (Doc 10085).

(f) No AOC Holder shall proceed beyond the threshold time approved by the Authority unless:

Note 3.— Guidance on the establishment of an appropriate threshold time and on specific approval of extended diversion time operations is contained in the Extended Diversion Time Operations Manual (Doc 10085).

Note 4.— Guidance on the conditions to be used when converting EDTO maximum diversion times to distances is contained the Extended Diversion Time Operations Manual (Doc 10085).

8.8.1.7 INSTRUMENT APPROACH OPERATING MINIMA

(c) The Authority may approve operational credit(s) for operations with advanced aircraft ~~airplanes equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS or CVS.~~ Such approvals shall not affect the classification of the instrument approach procedure.

Note 1. – Operational credit includes:

(1) for the purposes of an approach ban (PCAR Part 8, Subsection 8.8.4.13, paragraph (c) and (d)), or dispatch considerations, a ~~minima~~ minimum below the aerodrome operating minima;

(2) reducing or satisfying the visibility requirements; or

(3) requiring fewer ground facilities as compensated for by airborne capabilities.

Note 2. – Guidance on operational credit and how to express the operational credit in the Operations Specifications ~~for aircraft equipped with automatic landing systems, a HUD or equivalent displays, EVS, SVS and CVS~~ is contained ~~in Attachment I and~~ in the Manual of All-Weather Operations (ICAO Doc 9365).

...

(i) When issuing a specific approval for the operational credit, the Authority shall ensure that:

(1) the aeroplane meets the appropriate airworthiness certification requirements;

(2) the information necessary to support effective crew tasks for the operation is appropriately available to both pilots where the number of flight crew members specified in the operations manual is more than one;

(3) the operator has carried out a safety risk assessment of the operations supported by the equipment;

(4) the operator has established and documented normal and abnormal procedures and MEL;

(5) the operator has established a training programme for the flight crew members and relevant personnel involved in the flight preparation;

(6) the operator has established a system for data collection, evaluation and trend monitoring for low visibility operations for which there is an operational credit; and

(7) the operator has instituted appropriate procedures in respect of continuing airworthiness (maintenance and repair) practices and programmes.

Note 1.— Guidance on safety risk assessments is contained in the Safety Management Manual (SMM)(Doc 9859).

Note 2.— Guidance on operational approvals is contained in the Manual Of All-Weather Operations (Doc 9365).

(j) For operations with operational credit with minima above those related to low visibility operations, the operator shall establish criteria for the safe operation of the airplane.

Note.— Guidance on operational credit for operations with minima above those related to low visibility operations is contained in the Manual of All-Weather Operations (Doc 9365).

PART 9

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

(12) List the airborne capabilities (~~i.e.~~ e.g. automatic landing, HUD, EVS, SVS, CVS) and associated operational credit(s) granted.

IS: 9.3.1.4 AIRCRAFT OPERATING MANUAL

(m) Instruction for determining aerodrome operating minima for instrument approaches using ~~HUD and EVS~~ eligible equipment for operational credit.

"End of Text"

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 orders, 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 is 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 2023.

Signed this 29 day of AUG 2023, CAAP, Pasay City

CAPTAIN MANUEL ANTONIO L. TAMAYO
Director General