Republic of the Philippines
CIVIL AVIATION AUTHORITY OF THE PHILIPPINES

MEMORANDUM CIRCULAR NO.: 15-19

TO : **ALL CONCERNED**

FROM : **THE DIRECTOR GENERAL**

SUBJECT : **AMENDMENT TO PHILIPPINE CIVIL AVIATION REGULATION - AIR NAVIGATION SERVICES (CAR-ANS) PART 11 INCORPORATING AMENDMENT 51 TO ICAO ANNEX 11 - AIR TRAFFIC SERVICES**

REFERENCE:

1. Philippine Civil Aviation Regulations- Air Navigation Services Part 11 Air Traffic Services
2. ICAO Annex 11 – Air Traffic Services
3. ICAO Annex 11; Amendment 51
4. Regulations Amendment Procedures
5. Board Resolution No. 2012-054 dated 28 September 2012

Pursuant to the powers vested in me under the Republic Act 9497, otherwise known as the Civil Aviation Authority Act of 2008 and in accordance with the Board Resolution No.: 2012-054 dated 28 September 2012, I hereby approve the incorporation of ICAO Annex 11 Amendment No. 51 to the Philippine Civil Aviation Regulation - Air Navigation Services (CAR-ANS) Part 11.

ORIGINAL REGULATIONS SUBJECT FOR REVIEW AND REVISION:

CAR-ANS PART 11 – AIR TRAFFIC SERVICES

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CHAPTER 11.1 DEFINITIONS

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Data Aaccuracy. A degree of conformance between the estimated or measured value and the true value.

~~*Note. — For measured positional data the accuracy is normally expressed in terms of a distance from a stated position within which there is a defined confidence of the true position falling.*~~

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Data Iintegrity (aeronautical data assurance level). A degree of assurance that an aeronautical data and its value has not been lost or altered since the ~~data~~ origination or authorized amendment.

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Data quality. A degree or level of confidence that the data provided meet the requirements of the data user in terms of accuracy, resolution, integrity (or equivalent assurance level), traceability, timeliness, completeness and format.

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11.2 GENERAL

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11.2.20 Aeronautical data

11.2.20.1 Determination and reporting of air traffic services-related aeronautical data shall be in accordance with the accuracy and integrity classification required to meet the needs of the end-user of aeronautical data ~~requirements set forth in Tables 1 to 5 contained in Appendix 11.5 while taking into account the established quality system procedures. Accuracy requirements for aeronautical data are based upon a 95 per cent confidence level, and in that respect three types of positional data shall be identified: surveyed points (e.g. navigation aids positions), calculated points (mathematical calculations from the known surveyed points of points in space, fixes) and declared points (e.g. flight information region boundary points).~~

Note. — Specifications concerning the accuracy and integrity classification of air traffic services-related aeronautical data are contained in PANS-AIM (Doc 10066), Appendix 1.

~~11.2.20.2 The CAAP shall ensure that integrity of aeronautical data is maintained throughout the data process from survey/origin to the next intended user. Based on the applicable integrity classification, the validation procedure shall:~~

~~a) for routine data: avoid corruption throughout the processing of the data;~~

~~b) for essential data: assure corruption does not occur at any stage of the entire process and may include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level; and~~

~~c) for critical data: assure corruption does not occur at any stage of the entire process and include additional integrity assurance procedures to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks.~~

11.2.20.~~3~~2 ~~Electronic aeronautical data sets, shall be protected by the inclusion in the data sets of a 32-bit cyclic redundancy check (CRC) implemented by the application dealing with the data sets. This shall apply to the protection of all integrity levels of data sets as specified in 11.2.20.2.~~ Digital data error detection techniques shall be used during the transmission and/or storage of aeronautical data and digital data sets.

Note. — Detailed specifications concerning digital data error detection techniques are contained in PANS-AIM (Doc 10066).

~~11.2.20.4 Geographical coordinates indicating latitude and longitude shall be determined and reported to the aeronautical information services authority in terms of the World Geodetic System 1984 (WGS-84) geodetic reference datum, identifying those geographical coordinates which have been transformed into WGS-84 coordinates by mathematical means and whose accuracy of original field work does not meet the requirements in Appendix 11.5, Table 1.~~

~~11.2.20.5 The order of accuracy of the field work and determinations and calculations derived therefrom shall be such that the resulting operational navigation data for the phases of flight will be within the maximum deviations, with respect to an appropriate reference frame, as indicated in the tables contained in Appendix 11.5.~~

~~*Note 1.- An appropriate reference frame is that which enables WGS-84 to be realized on a given position and with respect to which all coordinate data are related.*~~

~~*Note 2.- Specifications governing the publication of aeronautical data are given in CAR-ANS Part 15, 11. 3.*~~

~~*Note 3.- For those fixes and points that are serving a dual purpose, e.g. holding point and missed approach point, the higher accuracy applies.*~~

11.2.22 Coordination between aeronautical information services and air traffic services authorities

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11.2.22.3 Of particular importance are changes to aeronautical information that affect charts and/or computer-based navigation systems which qualify to be notified by the Aeronautical Information Regulation and Control (AIRAC) system, as specified in CAR-ANS Part 15 (15.6). ~~11.11.6 and Appendix 11.4).~~ The predetermined, internationally agreed AIRAC effective dates ~~in addition to 14 days postage time~~ shall be observed by the responsible air traffic services when submitting the raw information/data to aeronautical information services.

Note. — Detailed specifications concerning the AIRAC system are contained in PANS-AIM (Doc 10066), Chapter 6.

11.2.22.4 The air traffic services responsible for the provision of raw aeronautical information/data to the aeronautical information services shall do so while taking into

account accuracy and integrity requirements required to meet the needs of the end-user of aeronautical data. ~~for aeronautical data as specified in Appendix 11.5 to this CAR-ANS Part 11.~~

Note 1.— Specifications concerning the accuracy and integrity classification of air traffic services-related aeronautical data are contained in PANS-AIM (Doc 10066), Appendix 1.

Note ~~1~~ 2.- Specifications for the issue of a NOTAM and ASHTAM are contained in CAR-ANS Part 15, ~~11. 5~~ (15.6).

Note ~~2~~ 3.- Reports of volcanic activity comprise the information detailed in CAR-ANS Part 3 (3.4), ~~11. 4~~ and LOA among Phivolcs, Pagasa, & CAAP.

Note ~~3~~ 4.- AIRAC information is distributed by the aeronautical information service at least 42 days in advance of the AIRAC effective dates with the objective of reaching recipients at least 28 days in advance of the effective date.

Note ~~4~~ 5 – The schedule of the predetermined, internationally agreed AIRAC common effective dates at intervals of 28 days and guidance for the AIRAC use are contained in the Aeronautical Information Services Manual (Doc 8126, Chapter 2, 2.6).

11.2.23 Minimum flight altitudes

Minimum flight altitudes shall be determined and promulgated by CAAP for each ATS route and control area over the territory of the Republic of the Philippines. The minimum flight altitudes determined shall provide a minimum clearance above the controlling obstacle located within the areas concerned.

Note. - The requirements for publication by CAAP regarding minimum flight altitudes and criteria used to determine them are contained in ~~CAR-ANS Part 15, Appendix 1.~~ PANS-AIM (Doc 10066), Appendix 2. Detailed obstacle clearance criteria are contained in PANS-OPS (Doc 8168), Volume II.

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11.2.33 Identification and delineation of prohibited, restricted and danger areas

11.2.33.1 Each prohibited area, restricted area, or danger area established by CAAP shall, upon initial establishment, be given identification and full details shall be promulgated.

Note. – See ~~CAR-ANS Part 15, Appendix 15A,~~ PANS-AIM (Doc 10066), Appendix 2, and ENR 5.1.

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APPENDIX 11.1 PRINCIPLES GOVERNING THE IDENTIFICATION OF NAVIGATION SPECIFICATIONS AND THE IDENTIFICATION OF ATS ROUTES OTHER THAN STANDARD DEPARTURE AND ARRIVAL ROUTES

(see CAR-ANS 11.2, Sections 11.2.7 and 11.2.11)

Note. — See Appendix 11.3 concerning the identification of standard departure and arrival routes and associated procedures. Guidance material on the establishment of these routes and procedures is contained in the Air Traffic Services Planning Manual *(Doc 9426).*

11.1 Designators for ATS routes and navigation specifications

11.1.1 The purpose of a system of route designators and navigation specifications applicable to specified ATS route segment(s), route(s) or area is to allow both pilots and ATS, taking into account automation requirements:

a) to make unambiguous reference to any ATS route without the need to resort to the use of geographical coordinates or other means in order to describe it;

b) to relate an ATS route to a specific vertical structure of the airspace, as applicable;

c) to indicate a required level of navigation performance accuracy, when operating along an ATS route or within a specified area; and

d) to indicate that a route is used primarily or exclusively by certain types of aircraft.

Note 1. — Specifications concerning the publication of navigation specifications are given in CAR-ANS Part 4, 4.7 and PANS-AIM (Doc 10066), Appendix 2.

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~~**APPENDIX 11.5. AERONAUTICAL DATA QUALITY REQUIREMENTS**~~

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APPENDIX 11.6.5. PRESCRIPTIVE FATIGUE MANAGEMENT REGULATIONS

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APPENDIX 11.7.6. FATIGUE RISK MANAGEMENT SYSTEM (FRMS) REQUIREMENTS

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APPENDIX 11.8.7 STATE RESPONSIBILITIES CONCERNING AN INSTRUMENT FLIGHT PROCEDURE DESIGN SERVICE

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AMENDED REGULATIONS:

CAR-ANS PART 11 AIR TRAFFIC SERVICES

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i. ***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.

ii. ***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.

iii. ***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.

iv. ***Effectivity Clause.*** - This Memorandum Circular shall take effect fifteen (15) days after publication in a requisite single newspaper of general circulation or the Official Gazette and a copy filed with the U.P. Law Center - Office of the National Administrative Register.

So Ordered. Signed this 3rd day of April 2019, at the Civil Aviation Authority of the Philippines, MIA Road, Pasay City, Metro Manila, 1301.

CAPTAIN JIM C. SYDIONGCO
Director General