



GUYANA CIVIL AVIATION AUTHORITY

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**GCAA
ADVISORY CIRCULAR**

**ANS INSPECTORATE
AC NO: GCAA AC/ANSI-009**

SUBJECT:

**AERONAUTICAL
DATA QUALITY**

DATE ISSUED: 18-11-2019
ISSUED BY: Director Aviation
Safety Regulation

Advisory Circulars (ACs) are not mandatory in nature, but provide means such as guidance, methods, procedures and practices acceptable to the Authority for complying with regulations and other requirements in a systematic manner. These are not necessarily the only means of compliance. ACs may also contain explanations of regulations, other guidance material, best practices or information useful to the aviation community. Unless incorporated into a regulation by reference, ACs are not regulatory and do not create or change a regulatory requirement. A change of a regulatory requirement may come in the form of a Directive. An Advisory Circular is not a Directive

1. PURPOSE

- 1.1 The purpose of this Advisory Circular (AC) is to provide guidance and ensure the integrity of aeronautical data is maintained throughout the data process from origination to distribution. The provisions and procedures in this circular do not relieve the end users of aeronautical data and aeronautical information of their responsibility to ensure accuracy and integrity of aeronautical data and information received.

2. AUDIENCE

- 2.1 This AC is for use by aviation service providers, such as: air navigation service provider (ANSP), data originators, commercial data houses of aeronautical data, aeronautical information and other users whose data is to be disseminated by The Aeronautical Information Services.

3. CANCELLATION

- 3.1 Not applicable.

4. EFFECTIVE DATE

- 4.1 This Advisory Circular becomes effective from November 30, 2019, unless withdrawn or cancelled by the Director General Civil Aviation.

5. CHANGES

- 5.1 Not applicable.

6. CONTACT INFORMATION

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7. INFORMATION MANAGEMENT REQUIREMENTS

- 7.1 The information management resources and processes established by the Authority shall be adequate to ensure quality-assured aeronautical data and aeronautical information within the Air Traffic Management (ATM) system by following the processes:
- a. collection;
 - b. processing;
 - c. quality control; and
 - d. distribution.

8. SPECIFICATIONS FOR DATA QUALITY

8.1 DATA ACCURACY

- 8.1.1 The AIS Section shall ensure that the order of accuracy for aeronautical data shall be in accordance with its intended use.
- 8.1.2 Specifications concerning the order of accuracy (including confidence level) for aeronautical data shall be as specified in the Procedures for Air Navigation Services Aeronautical Information Management (PANS-AIM, Doc 10066), **Aeronautical Data Catalogue**.

8.2 DATA RESOLUTION

- 8.2.1 The AIS Section shall ensure that the order of resolution of aeronautical data shall be commensurate with the actual data accuracy.
- 8.2.2 Specifications concerning the resolution of aeronautical data shall be as specified in the PANS-AIM (Doc 10066), **Aeronautical Data Catalogue**.

Note: The resolution of the data contained in the database may be the same or finer than the publication resolution.

8.3 DATA INTEGRITY

- 8.3.1 The AIS Section shall ensure that the integrity of aeronautical data shall be maintained throughout the data chain from origination to distribution to the next intended user.
- 8.3.2 Specifications concerning the integrity classification related to aeronautical data shall be as specified in the PANS-AIM (Doc 10066), **Aeronautical Data Catalogue**.
- 8.3.3 Based on the applicable integrity classification, procedures shall be put in place in order to:
- a. Avoid corruption throughout the processing of the data, **for routine data**.
 - b. Assure corruption does not occur at any stage of the entire process and include additional processes as needed to address potential risks in the overall system architecture to further assure data integrity at this level, **for essential data**.
 - c. Assure corruption does not occur at any stage of the entire process and include additional integrity assurance processes to fully mitigate the effects of faults identified by thorough analysis of the overall system architecture as potential data integrity risks **for critical data**:

8.4 DATA TRACEABILITY

- 8.4.1 Traceability of aeronautical data shall be ensured and retained by the AIS Section as long as the data is in use.

8.5 DATA TIMELINESS

- 8.5.1 Timeliness of aeronautical data shall be ensured by including limits on the effective period of the data elements.

Note 1: These limits may be associated with individual data elements or data sets.

Note 2: If the effective period is defined for a data set, it will account for the effective dates of the individual data elements.

8.6 DATA COMPLETENESS

- 8.6.1 Completeness of aeronautical data shall be ensured in order to support its intended use.

8.7 DATA FORMAT

- 8.7.1 The format of delivered aeronautical data shall be adequate to ensure that the data is interpreted in a manner that is consistent with its intended use.

9. AERONAUTICAL DATA AND AERONAUTICAL INFORMATION VALIDATION AND VERIFICATION

- 9.1 Material to be issued as part of the aeronautical information product shall be thoroughly checked before it is submitted to the AIS Section, in order to ensure that all necessary information has been included and that it is correct in detail.
- 9.2 The AIS Section shall establish verification and validation procedures, which ensure that upon receipt of aeronautical data and aeronautical information, quality requirements.

10. DATA ERROR DETECTION

- 10.1 Aeronautical data shall be provided in accordance with the resolution requirements contained in the **Aeronautical Data Catalogue**.
- 10.2 Geographical coordinates whose accuracy does not meet the requirements specified in **Aeronautical Data Catalogue** shall be identified.
- 10.3 The identification of geographical coordinates whose accuracy does not meet the requirements may be made either with an annotation or by explicitly providing the actual accuracy value.
- 10.4 In aeronautical information products that are distributed on paper, the identification should be done with an asterisk following the coordinate value concerned.
- 10.5 The AIS Section shall use digital data error detection techniques during the transmission and/or storage of aeronautical data and digital data sets.
- 10.6 The AIS Section shall use digital data error detection techniques in order to maintain the integrity levels as specified in Data Integrity.

- 10.7 Detailed specifications concerning digital data error detection techniques shall be as specified in the PANS-AIM (Doc 10066).

11. REFERENCES

- a. International Civil Aviation Organisation (ICAO) Annex 4 chapter 2.17 and Annex 15 chapter 3 to the Convention on International Civil Aviation.
- b. ICAO – Document 10066 and 8126.
- c. Civil Aviation (Air Navigation Services) Regulations 2016 Part VI (Aeronautical Information Services) Reg. (37,39,40,41) and Part VII (Aeronautical Chart) Reg. 46.


12. SUBMITTING DATA OR INFORMATION

- 12.1 All Data Information Providers when submitting data or information to be promulgated by the AIS or to be published in the AIP are required to:
- a. Complete the relevant table/s listed in the Aeronautical Data Catalogue posted on the GCAA website <https://gcaa-gy.org/>. These tables can also be requested from the AIS via email aisguyana@gcaa-gy.org. The completed table should be submitted to the AIS using any of the methods listed in "b" to "d" below.
 - b. Submit printed form of the table/s to the AIS office Timehri Control Tower Complex CJIA East Bank Demerara.
 - c. Submit information in digital form of the table/s via email to aisguyana@gcaa-gy.org via .
 - d. Submit information via fax Number 592-261-2279.

13. AERONAUTICAL DATA CATALOGUE TABLES

- a. GCAA Table A1-1 Aerodrome data.
- b. GCAA Table A1-2 Airspace data.
- c. GCAA Table A1-3 ATS and other routes data.
- d. GCAA Table A1-4 Instrument flight procedure data.
- e. GCAA Table A1-5 Radio navigation aids/systems data.
- f. GCAA Table A1-6 Obstacle data.
- g. GCAA Table A1-7 Geographic data.
- h. GCAA Table A1-8 Terrain data.
- i. GCAA Table A1-9 Data types.
- j. GCAA Table A1-10 Information about national and local regulation, services and procedures.

Approved By:


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Director General Civil Aviation
Guyana Civil Aviation Authority

