

**INTERNATIONAL CIVIL AVIATION ORGANIZATION
NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE**

**TWENTY-SIXTH EASTERN CARIBBEAN INFORMAL WORKING GROUP MEETING
(26TH E/CAR IWG)**

(Barbados, 3 to 7 June 2002)

Agenda Item 2: **AIS Developments**

THE COMPLETE IMPLEMENTATION ON WGS-84 SYSTEM

(Working Paper presented by the Secretariat)

SUMMARY

This paper was prepared to emphasize the importance for the States to complete this significant task as soon as possible, and the need to establish coordination meetings among nationhood States in order to agree the publication for common FIR, ATS and ATS/MET WGS-84 coordinates.

1 Introduction

1.1 ICAO and International Organizations declare our concern for the overall status of the implementation of WGS-84 in the Region and the low-key action plans by some States. Aircraft rely on FMS Databases, which are supported on WGS-84 coordinates. Therefore, WGS-84 has to be considered as an essential element to CNS/ATM.

1.2 Once more we ask to Civil Aviation Administrations to make additional efforts to achieve the total implementation of the WGS-84, as well as to continue with the necessary actions to update and recalculate the rest of the geographic coordinates, that will be used for air navigation operations such as fixed points and FIR, ATS, ATS/MET obstacles, in different flight phases within the flight procedure areas, and which must be published in the corresponding Aeronautical Information Publication (AIP).

2. Discussion

2.1 During the last E/CAR IWG Meeting the results of a technical study on the status of implementation of the referred system were presented, concluding that it is necessary to establish a tight collaboration among Aeronautical Administrations and the Geodetic/Geographic Institutes in order to complete the WGS-84 System Implementation.

2.2 The objective of these studies are to provide details and descriptive guides of WGS-84 coordinates data to be provided by States and to complete the requirements contained on Annexes 4, 11, 14, 15, and Document 9674 (World Geodetic System, 1984). The referred information has been developed gathering information from AIP publications and WGS-84 surveys in the E/CAR Region that were coordinated by International Governmental Agencies of the United States, such as the Federal Aviation Administration (FAA), the National Imagery and Mapping Agency (NIMA), and National Geodetic Survey (NGS).

2.3 For Civil Aviation Administrations and ICAO, it is very important to know what type of data has been surveyed and to what level of accuracy and resolution this was done. In addition to the production of accurate positional data, the other aim of the programme is to be able to recall the history of that data. It is the survey report that will provide the details of the acquisition method used. This quality record will be used for assessment and future reference.

2.4 It is therefore essential that the surveyors record all the necessary information that will be required. To ensure this, a minimum survey report specification should be given in the Surveying Standard. This way all survey work undertaken to determine the coordinates of navigation facilities can be reported in a predefined format. Where existing national reporting practice differs from that shown in the Surveying Standard, the National Administration may make a case in support of the national standard where this can be shown to be compatible.

2.5 An advantage in having consistency of report formats will be seen in the assessment phase. Checklists drawn up based on the Standard format and cross referenced to the mandatory points would facilitate an efficient audit process. A further advantage can also be seen in providing the surveyors with the checklists before operations as a guidance document for the reporting requirement.

2.6 This analysis will show the real status on States/Territories with more progress in the WGS-84 implementation. Other significant information is to know which States/Territories have a minor implementation level. In this regard, it is important to emphasize that in some States/Territories there exists a mayor complexity in its airspace and airport infrastructure.

2.7 Subsequently and considering all categories within the Inventory Questionnaire, as well as other categories such as NAVAIDS, SID, STAR, etc, this analysis will allow to have the required details, complexity of information and volume data to obtain an implementation status profile even on a Subregional level. It is noted that the WGS-84 data from some States in the E/CAR has not been received at the ICAO NACC Regional Office, due to the possibility that it has not been published through the corresponding AIP.

3. **Conclusion**

3.1 According with the aforementioned, the Meeting is invited to adopt the following conclusion:

CONCLUSION 26/XX ADOPT THE INVENTORY QUESTIONNAIRE FOR THE WGS-84 IMPLEMENTATION STATUS.

That E/CAR States/Territories:

- a) Fill and complete the Inventory Questionnaire for the WGS-84 Implementation Status;
- b) Maintain updated the historical data by Aeronautical Authority through basic reporting structure for: Geodetic survey, En-route survey and Aerodrome/heliport survey;
- c) Present the Inventory Questionnaire fulfilled to the NACC Regional Office, by 31st. July 2002 at the latest. **(See Appendix to this WP)**

4. **Suggested Action**

4.1 The Meeting is invited to discuss and take note of this working paper, in order to provide the information required in support to the completion of the WGS-84 Implementation.

4.2 The Meeting is invited to adopt the Conclusion 26/XX.
