

INTERNATIONAL CIVIL AVIATION ORGANIZATION

CAR/SAM AIS/ATM/CNS 02/00 Informal Meeting

(Cayenne, 27-29 March 2001)

Item 1: **Review of AIS matters, taking into account:**

- a) **matters concerning WGS-84 implementation**
- b) **implementation of recommendations and conclusions of the CAR/SAM RAN/3 Meeting**

(presented by the Secretariat)

Summary

This working paper sets out aspects concerning the need for effective implementation of AIS/MAP requirements by the States in the area under consideration by the Meeting.

References:

- Report of the Third Regional Air Navigation Meeting (CAR/SAM RAN/3), held in October 1999; and
- Report of the Eighth Meeting of the CAR/SAM Planning and Implementation Group (GREPECAS/8), Santo Domingo, Dominican Republic, November 1998.

1. Introduction

1.1 The Eighth Meeting of the CAR/SAM Regional Planning and Implementation Group (GREPECAS/8), held in Santo Domingo, Dominican Republic, in November 1998, addressed the problems encountered in the effective provision of air navigation services in the northeastern sector of the CAR/SAM Region and the Eastern Caribbean Subregion. After examining the issue, the meeting deemed it necessary to expedite the analysis of the aforementioned problems and to call an informal meeting to carefully analyse and resolve the matter. Consequently, it adopted Conclusion 8/50 (Deficiencies affecting the provision of air navigation services in the Eastern Caribbean area of the CAR/SAM Region) in which it agreed on the need to hold an informal meeting of Brazil, France, Guyana, Suriname, Trinidad and Tobago, and Venezuela.

1.2 As a follow-up to Conclusion 8/50 of GREPECAS/8 and through the corresponding Regional Offices, an agenda was agreed upon for that meeting. Agenda Item 1 would be the review of AIS matters, taking into account aspects related to the implementation of the World Geodetic System-84 (WGS-84) and the implementation of Recommendations and Conclusions of the CAR/SAM RAN/3 Meeting. As a result, the main purpose of this working paper is to put forward for consideration by this meeting aspects related to the need for effective implementation of the AIS/MAP requirements in the area in question.

2. **Analysis of AIS/MAP requirements by the CAR/SAM RAN/3 Meeting**

2.1 As stated in ICAO Annex 15, the purpose of AIS is to ensure distribution of the information needed for the safety, regularity, and efficiency of international air navigation. The CAR/SAM RAN/3 Meeting was aware as well that, in order to provide support for CNS/ATM systems, users must have access to good quality and real-time aeronautical information throughout the world; also that, in order to meet these high-level requirements, strict quality principles should be established to guarantee verification and validation of aeronautical data, thus ensuring that users develop confidence in the accuracy and, hence, reliability of the information provided.

2.2 The CAR/SAM/3 Meeting recognised that, while the amount of information to be exchanged could vary considerably from one State to the next, the nature of the AIS responsibilities in question remains basically the same for all. It was also stated that, in the case of any other aeronautical service, a prerequisite for the timely and efficient supply of aeronautical information to users is to have adequate and competent personnel, with appropriate housing and equipped as needed. On the other hand, practice has also shown that there are common factors that allow for efficient working arrangements in regard to AIS services that could be considered basically by the States for establishing a sound AIS organisation. The aforementioned meeting considered as a basic aspect for achieving efficient AIS service, the need for close and effective co-ordination between the AIS headquarters office and the international NOTAM office (NOF), aerodrome AIS units, mapping services, and the relevant technical services that provide basic information to the AIS.

2.3 In light of the analysis of AIS/MAP problems made by the CAR/SAM RAN/3 Meeting, it was recognised that a large number of AIS organisations in the CAR/SAM Regions would need considerable improvement in their operation; it was noted that very few improvements had been made in this regard since the CAR/SAM RAN/2 Meeting (1989). The meeting also noted the existence of major deficiencies in almost all aspects of AIS, including the failure of some Administrations to recognise the importance of AIS services, reflected in the low category attributed to AIS/MAP personnel. The secondary importance given to these services has made it difficult for AIS personnel to co-ordinate with the personnel of other Administration services. This factor has also worked against the hiring by the AIS of candidates with good academic training, who prefer to work in other aeronautical areas with greater prestige and better pay. And, in many cases, those who do decide to work in AIS look upon it as a temporary occupation until a job opens up in another aeronautical technical service, making it difficult for the AIS to have a permanent qualified staff.

2.4 The CAR/SAM RAN/3 Meeting recognised that proper training of the personnel responsible for AIS and MAP activities was another aspect which could make a direct contribution toward improving the quality of AIS services in general. Consequently, it was agreed that the respective States should take the necessary steps to give high priority to the training and working conditions of the personnel assigned to AIS and MAP functions. Furthermore, the meeting felt that the central AIS office, international NOTAM office (NOF), and aerodrome AIS units should be staffed with qualified personnel in sufficient numbers to meet operator demands during peak traffic hours, regular operating hours, and for a 24-hour service.

2.5 In regard to the previous paragraphs, the CAR/SAM RAN/3 Meeting finally agreed that a State's AIS services would be deficient as long as they lacked an adequate and effective AIS organisation with the appropriate category and the necessary personnel and equipment to produce and keep up to date a complete AIP, including all the required aeronautical charts; to prepare and distribute the respective NOTAMs; and to provide all flights with pre- and post-flight information services as required.

2.6 **Aeronautical charts**

2.6.1 With respect to the production by States of the required aeronautical charts, the meeting noted the continued non-compliance with ICAO Annex 4 specifications and even some cases of failure to publish some charts defined as compulsory in Annex 4 or if published, they met only some of Annex 4 specifications. The meeting agreed that these were major deficiencies that could have repercussions on air navigation safety. In this respect, it confirmed the need to provide the compulsory aeronautical charts and also to standardise the layout of charts and their contents according to ICAO specifications. Regarding the standardisation aspect, it was stressed that today, more than ever, it was necessary to meet the requirement for uniformity and standardisation when presenting the information.

2.7 **World Geodetic System-1984 (WGS-84)**

2.7.1 In discussing this important matter, the CAR/SAM RAN/3 Meeting was aware that the implementation of the WGS-84 had a direct impact on the timely implementation of CNS/ATM systems, and that the issue was being handled properly by both the relevant Regional Offices and the GREPECAS Regional Group. Nevertheless, the meeting summarised the main reasons why the WGS-84 System had not been implemented in the CAR/SAM Regions as required:

- a) lack of national and regional planning;
- b) failure of the Administrations to assign the necessary financial resources for the effective implementation of the WGS-84;
- c) the need for an effective level of co-ordination between State aeronautical and geodetic entities;
- d) insufficient aeronautical personnel with the necessary technical knowledge to advise and/or orient the personnel responsible for geodetic services, in order to obtain all of the WGS-84 geographic co-ordinates needed for aeronautical purposes; and

- e) non-availability of the technical personnel and equipment required by the Administrations to effectively implement the WGS-84.

3. **Implementation of AIS/MAP requirements in the area in question**

3.1 With respect to the implementation of ICAO Annex 15 AIS/MAP requirements and that agreed on this issue by the CAR/SAM RAN/3 Meeting, and considering the analysis made on this matter for review by this meeting, it may be said that despite the efforts made in this direction, there are still some problems that affect the normal provision of AIS services in the area under consideration by this meeting. These are the following:

- there are three (3) States in the area that have not produced the restructured AIP as required;
- at least two (2) States in the area have not satisfactorily met the requirement to effectively establish aerodrome AIS units;
- 24-hour service is not provided in at least two (2) of the international NOTAM offices in the area under consideration and one of these also has major communication problems;
- NOTAM information needs to be better controlled and made more available among the States involved ; *i.e.* there must be more efficiency in the exchange of NOTAMs among these States and between these and other CAR/SAM States;
- almost none of the States involved enforce requirements to guarantee the effective provision of post-flight information services as stipulated in ICAO Annex 15;
- generally speaking, each and every one of requirements stipulated in ICAO Annex 15 with respect to the AIRAC regulatory system are not fulfilled in the area in question;
- at least three (3) of the States under consideration fail to comply with the requirement for regular promulgation of amendments and AIP supplements;
- at least three (3) States in the area are not fulfilling the AIC publication requirement;
- at least four (4) States are not effectively meeting the requirement for regular publication of checklists and publication summaries;
- at least three (3) States fail to regularly and effectively produce and maintain all of the aeronautical charts required by ICAO Annex 4;
- only three (3) States in the area have implemented the WGS-84 system;
- three (3) of the States involved have yet to produce their aeronautical charts under the WGS-84 system;
- five (5) States in the area need to fulfil the requirement to publish the geoidal undulations for each runway threshold in their international airports;
- bilateral and/or multilateral agreements are needed between the States involved in order to guarantee the consistency and uniformity of WGS-84 geographic co-ordinate data published with respect to the common FIR boundaries in the area under consideration.

3.2 With a view to permit a better analysis of the situation reported in paragraph 3.1 above, **Appendices A, B, C and D** are included in this working paper, which present aspects related to the status of implementation of the requirements in the CAR/SAM Air Navigation Plan and in ICAO Annexes 4 and 15.

4. **Proposal**

4.1 This working paper offers the meeting information about the implementation of the AIS/MAP requirements and the treatment given to the matter by the CAR/SAM RAN/3 Meeting with a view to considering the need to provide users with a reliable and timely aeronautical information service. Section 3 of this working paper sets out a series of problems that are affecting the normal provision of AIS services in the area under consideration, so that the meeting may, on the basis of relevant considerations, arrive at some kind of relevant solution and/or guideline to improve the situation reported.

5. **Suggested action**

5.1 In light of what has been stated in this working paper, the meeting is invited to take note of the information provided and, based on that set forth in sections 3 and 4 hereto, and after due analysis, to take all the steps required to deal with each case.
