

INTERNATIONAL CIVIL AVIATION ORGANIZATION
FIRST MEETING OF DIRECTORS OF CIVIL AVIATION OF THE
CARIBBEAN REGION (CAR/DCA/1)

(Grand Cayman, Cayman Islands, 8-11 October 2002)

Agenda Item 4: **Air Navigation**
 4.2 CNS Developments

SUMMARY
Proposal for actions to continue the development of CNS systems in the CAR Region.
REFERENCES: <ul style="list-style-type: none">– Report of the CAR/SAM/3 RAN.– CAR/SAM ANP, Volumes I and II.– Reports of the Eighth, Ninth and Tenth GREPECAS Meeting.– Reports of CAR Subregional Meetings relating to CNS systems.

(Presented by the Secretariat)

1. Background

1.1 As expressed in WP/03 of this meeting, nowadays, the main guidelines for the development of CNS systems are essentially the following:

- implement, in an efficient manner, CNS requirements established in the CAR/SAM ANP FASID;
- resolve the existing deficiencies in CNS systems; and
- comply with GREPECAS conclusions in order to continue the development of CNS systems.

1.2 Also, the following are the main activities on the development of CNS systems:

- a) support ICAO position at the ITU's WRC-2003.
- b) development and interconnectivity of the Regional Digital Networks.

- c) improve and complete VHF and HF AMS coverage.
- d) transition from AFTN to ATN. Implementation of the ground portion of ATN.
- e) GNSS implementation.
- f) radar data sharing.

2. Discussion

2.1 In line with the background expressed in the paragraphs above, the essential requirements are to continue the work of CNS systems development. The following is an executive analysis on the work referred to each main CNS objective:

Communications

a) **Support for the ICAO position at ITU'S WRC-2003.**

2.2 Based on State Letter Ref. E 3/5-01/79 and on GREPECAS Conclusion 10/19, it is necessary to emphasize the need and great importance of supporting ICAO's position at the ITU's WRC-2003 in order to defend the interests and needs of the radio frequency spectrum for civil aviation. In order to organize and optimize the coordination and support to the aforementioned position, taking into account the conclusions adopted by the subregional bodies referred to in the Appendix of WP/03 of this meeting, States have been requested to nominate an expert in aeronautical telecommunications in charge of the coordination of actions with the spectrum management national authorities, as well as with ICAO CNS experts, and who will participate at the WRC-2003. According to available information in ICAO NACC Office, few States have submitted the nomination of their experts; therefore, the attention of the CAR States is drawn to the fact that it is necessary to inform the aforementioned nomination as soon as possible.

2.3 States were also urged to participate at the forthcoming Regional Coordination Meeting to support ICAO position at the WRC-2003, to be held in Mexico City from 11 to 12 December 2002, as well as in other regional fora organized in order to facilitate better understanding of the ICAO position and to familiarize themselves with the aspects of management and protection of aeronautical frequencies.

b) **Development and interconnectivity of Regional Digital Networks.**

2.4 Efforts are necessary to continue the developments and interconnectivity of regional digital networks of the CAR Region: CAMSAT, E/CAR and MEVA, as well as with the REDDIG network of the SAM Region, which is being implemented, with a view to meeting AFS requirements, as well as to providing backbone support to ATN implementation.

2.5 AFS requirements pending improvement and implementation of digital circuits are shown with arrows in the graphic of **Appendix A**.

c) **Improvement and compliance with VHF and HF AMS coverage.**

2.6 With regard to VHF AMS communications coverage required in the Flight Information Regions (FIRs) of the CAR Region, based on GREPECAS Conclusion 10/29 dealing

with deficiencies in lack of air-ground VHF coverage, it is important to review, improve and complete that coverage with regard to requirements established in FASID Table CNS 2A, bearing in mind that en-route VHF air-ground voice communications for area control purposes should cover, as much as possible, all the air routes controlled by the corresponding ATS unit, ensuring the signal ground intensity level established in Annex 10, Volume III, Part II, Chapter II, to provide a communications coverage as specified in Annex 11. Moreover, it should be considered that the lack of en-route air-ground VHF communications is considered a deficiency rated U (urgent priority) if there is no other communications means available. In this regard, the need that the States/Territories/International Organizations of the CAR Region agree upon and continue actions to proceed to a complete analysis on air-ground VHF communications coverage in FIRs of the CAR Region is hereby reiterated. Likewise, it is expected that Jamaica, Netherlands Antilles and COCESNA inform to the Meeting on the status of implementation of their respective plans to improve and complete VHF AMS coverage.

2.7 Concerning HF AMS communications coverage, the essential requirement is to continue and finalize the action plan being implemented by Trinidad and Tabago in order to improve and complete this coverage and ATC service through this communications means in the Piarco FIR.

d) **Transition from AFTN to ATN. Implementation of the ground portion of ATN**

2.8 Also, in accordance with GREPECAS Conclusion 10/22 item b), the States/Territories/International Organizations, based on SARPs on ATN/AMHS, should establish as soon as possible, plans for the transition from AFTN to AMHS; among the main actions, the following are deemed of great importance: technical staff training and the development of the suitable planning in accordance with GREPECAS guidelines.

Navigation

a) **GNSS implementation**

2.9 In accordance with GREPECAS/10 Conclusion 10/32, the States/Territories / International Organizations should continue publishing and updating the legislations/regulations authorizing the use of GNSS in their respective airspace in terminal area and en-route. According to available information of the Secretariat, the status of publication in the CAR Region is included in **Appendix B** that shows that some CAR States would need to publish and update their respective publications.

Surveillance

b) **Radar data sharing.**

2.10 Based on the information contained in Table CNS 4A, it would be necessary to update the surveillance plan concerning the CAR Region, especially on the implementation of the Primary Surveillance Radar (PSR), and Secondary Surveillance Radar (SSR).

2.11 Additionally, work should be continued on planning and implementation of radar data sharing among ATM units, taking into account the “*Initial Regional Guidelines on Radar Data Sharing in the CAR/SAM Regions*” approved by GREPECAS/10 meeting through Conclusion 10/33, as well as new recommendations that are expected to be issued by GREPECAS soon. In this regard, the Meeting may agree on actions so that the States / Territories / International Organizations establish bilateral and multilateral agreements to implement radar data sharing.

3. **Suggested actions**

3.1 The Meeting is invited to examine the information of this working paper and to agree on actions to support the continued work on:

- a) the implementation and development of communications systems, in accordance with the considerations expressed in this paper, especially in paragraphs 2.2 to 2.6;
- b) the implementation and development of navigation systems, in accordance with the considerations expressed in this paper, especially in paragraph 2.7;
- c) the implementation and development of surveillance systems, in accordance with the considerations expressed in this paper, especially in paragraphs 2.8 and 2.9; and
- d) establishing considerations and agreements for cooperation on the implementation and development of CNS systems.
