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Ocho Rios, Jamaica, 12-16 May 2008

Agenda Item 3 CNS Developments

3.1 Follow-up on the Status of the E/CAR AFS and MEVA II Digital Networks and their Related Inter and Intra-Regional Interconnection/Integration

FOLLOW-UP ON THE DEVELOPMENT AND INTERCONNECTION/INTEGRATION OF E/CAR AND MEVA II DIGITAL NETWORKS

(Presented by the Secretariat)

SUMMARY

This working paper presents the status of E/CAR and MEVA II digital network(s) implementation and interconnection/integration with sub-regional and regional neighboring networks.

References:

- Report of the CAR/SAM RAN/3 Meeting, Doc 9749
- Report of the GREPECAS/10, 12, 13 and 14 Meetings
- Report of the 21st E/CAR DCA, Tortola, Virgin Islands (11 – 14 February, 2008)
- Report of the Fifth MEVA II REDDIG Coordination Meeting, (Mexico City, Mexico, 3-5 October 2007)
- Report of the Sixth MEVA II REDDIG Coordination Meeting, (Lima, Peru, 7-8 May 2008)
- Report of the First Caribbean Working Group Meeting (CAR/WG/1) (Port-of-Spain, Trinidad and Tobago, 21 – 23 June 2007)

Strategic Objectives	*This working paper relates to Strategic Objectives A and D.*

1. Introduction

1.1 Implementation by States, Territories and International Organizations of digital communication networks at regional and sub-regional levels has been continuous through cooperation agreements aimed at improving quality and availability of voice communication circuits and aeronautical fixed services (AFS) as well as facilitating the introduction of ATN and its applications in an evolutionary manner. Likewise, improvement and optimization of these networks have been handled in a coordinated approach bearing in mind new operational requirements and air traffic growth in the region.

1.2 Interconnection/interoperation/integration among digital communication networks could facilitate and fulfill present and future communication requirements among the NAM, CAR and SAM Regions in an efficient, safe and economic way complying with SARPs.

1.3 This development and implementation of digital networks have been based on Recommendation 9/1 – *Implementation of digital networks to improve the current AFS and to facilitate the introduction of the ATN* developed during the Third Caribbean/South American Regional Air Navigation Meeting (CAR/SAM RAN/3) (Buenos Aires, 5 to 15 October 1999), which urged States to proceed with the process of implementing modern digital communication networks in a coordinated manner, and directed GREPECAS to develop criteria and guidelines necessary for establishing inter-networking between various available and emerging digital networks.

2. Follow-up and Analysis on the Status of Digital Networks and their Interconnection/Integration

Present Status of Digital Networks

2.1 Taking into account the difficulties encountered when interconnecting/integrating VSAT networks to facilitate implementation of present and future services, both in technical and administrative aspects, Conclusion 5/16 of the Fifth Meeting of the ALLPIRG/Advisory (ALLPIRG/5) (Implementation of very small aperture terminals [VSATs]) discouraged the proliferation of independent VSAT networks at the regional level or between adjacent regions, where existing VSAT networks can be expanded to serve new areas of interest.

2.2 The use of digital networks, both in the implementation of new networks and updating of existing ones, must consider the use of technology available in the industry, offering greater efficiency and providing the desired services with the required performance and interoperability to keep adequate safety levels at minimum cost, as expressed in strategic GPI-22 of the Global Air Navigation Plan.

2.3 Within ITU spectrum management, the use of fixed satellite service (FSS) frequencies where VSAT networks operate was not considered by the ITU as a service related to safety; however, as a result of the ITU-2007 World Radiocommunication Conference (WRC 2007), in accordance with the ICAO position, an ITU Recommendation was formed to recognize that VSAT networks can be used to transmit safety aeronautical information.

2.4 The MEVA network has been renewed through the MEVA II Network Project, whose operational and performance results have been evaluated through the network Technical Management Group (TMG).

2.5 The existing E/CAR network is in the process of review and analysis for improvements by its members, as was informed in the CAR/WG/01 Meeting, at the 21st Meeting of Directors of Civil Aviation of the E/CAR (21st E/CAR DCA) and in the Technical Meeting carried out between the Civil Aviation Authority of Trinidad and Tobago and the Federal Aviation Administration of the United States (San Juan, Puerto Rico, 12-13 March 2008).

Digital Networks Interconnection/Integration

2.6 Criteria for digital network interconnection have been analyzed and action has been suggested in various GREPECAS meetings:

- two informal meetings (Informal Meeting CAR/SAM 01/00, Mexico City, 26 to 29 June 2000, and Informal Meeting CNS-CAR/SAM 01/01, Bogota, Colombia, 9 to 11 October 2001), as well as in the Coordination Meeting of MEVA and REDDIG Networks Interconnection (Lima, Peru, 11 to 12 November 2002).
- The GREPECAS/10 Meeting (Las Palmas, Spain, 23 to 27 October 2001) adopted preliminary material on interconnection of aeronautical communications digital networks (Conclusion 10/27).
- The GREPECAS/12 Meeting (Havana, Cuba, 7 to 11 June 2004) emphasized the importance of continuing efforts to achieve a homogeneous interconnection among CAR/SAM regional and inter-regional digital communications networks with adjacent regions, taking into account the present and future voice and data communication requirements (Conclusion 12/39).

2.7 During the GREPECAS/13 Meeting held in Santiago, Chile, 14 to 18 November 2005, aimed at achieving development of a homogeneous network between the MEVA II and REDDIG networks, Conclusion 13/70 “Establishment of Agreements to achieve the MEVA II – REDDIG Interconnection /Interoperation” was agreed. Regarding this conclusion, six coordination meetings MEVA II/REDDIG (MR) have been convened with participation network member States/International Organizations. These meetings were supported by the MEVA II/REDDIG interconnection Task Force.

2.8 From the last MEVA II/REDDIG meetings it is highlighted:

- At the MR/5 Meeting the MEVA II/REDDIG Memorandum of Understanding (MoU) was updated and it was circulated by the NACC and SAM Regional Offices to member State/Territories/International Organizations of both VSAT networks. Likewise, the request for proposal (RFP) process for the Terms of Reference for the interconnection and the consultation process with service provider tenderers were presented.
- At the MR/5 and MR/6 Meetings, the Action Plan for the MEVA II/REDDIG interconnection was updated.
- The MoU as well as the Action Plan were approved by GREPECAS in Conclusion 14/52.
- During the MR/6 Meeting certain considerations were analyzed for the MEVA II – REDDIG networks integration phase, which will be implemented after a five year period starting from the interconnection commissioning.

3. Discussion

3.1 Taking into account the background presented in the above paragraphs, the Meeting is invited to conduct follow-up on development and interconnection/integration of CAR regional and sub-regional digital networks.

4. Suggested Action

4.1 The Meeting is invited to:

a) take note of the information provided in this working paper;

b) review follow-up on the development and interconnection of VSAT MEVA II network, taking into consideration the background presented in paragraphs 1.1 to 2.4 and 2.6 to 2.8 above;

c) report improvements and planning foreseen in the E/CAR network, taking into account paragraphs 1.1 to 2.3 and 2.5 of this paper; and

d) consider and suggest other aspects considered appropriate.

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