



*Internacional Civil Aviation Organization*

North American, Central American and Caribbean Office

**Meeting of the MEVA II / REDDIG Interconnection Task Force**

Mexico City, Mexico 3 to 5 May 2006

MR/TF-IP/03

05/04/06

**Agenda Item 1: Analysis to the proposals for the MEVA II / REDDIG Networks total homogeneous integration/interoperation**

## **RESULTS OF THE ALLPIRG/5 MEETING ON THE USE OF VSAT REGIONAL NETWORKS**

(Presented by the Secretariat)

### **SUMMARY**

This information paper presents the results of the ALLPIRG/5 Meeting on the use of VSAT networks for the provision of aeronautical communications.

### **References**

- Report of the ALLPIRG/5 Meeting. Montreal, 23-24 March 2006.

## **1. INTRODUCTION**

1.1 The Fifth meeting of the ALLPIRG/Advisory Group was held at ICAO Headquarters in Montreal, Canada, from 23 to 24 March 2006.

1.2 The ALLPRIG/5 meeting was chaired by Dr. Assad Kotaite, President of the Council of ICAO. Mr. V.D. Zubkov, Chief, Regional Affairs Office (RAO) served as Secretary of the meeting. The meeting was also assisted by Mr. A. Sayce, President of the Air Navigation Commission, Mr. W. Voss, Director, Air Navigation Bureau, as well as staff members of the Air Navigation and Air Transport Bureaux and of the Regional Affairs Office.

1.3 The meeting was attended by 100 participants, including 51 observers. The representatives of the CAR/SAM Regional Planning and Implementation Group (GREPECAS) were Mr. Normando Araujo (Chairman), Mr. Raymond Ybarra (Secretary and ICAO NACC Regional Director), and Mr. Jose Miguel Ceppi (ICAO SAM Regional Director).

1.4 The meeting under its Agenda Item 5 reviewed the issues associated with the implementation of VSAT networks.

## **2. CONCLUSIONS OF THE ALLPIRG/5 MEETING ON THE USE OF VERY SMALL APERTURE TERMINAL (VSAT)**

2.1 The Meeting considered the issues associated with the implementation of ground communication networks using very small aperture terminal (VSAT). It was noted that in certain ICAO Regions, VSAT has been the technology of choice for the provision of aeronautical fixed service (AFS) and other ground-ground communications. However, the continuing trend towards proliferation of such networks has been of concern due to cost and complexity of their interconnections and potential degradation of end-to-end performance. It was agreed that any network upgrade or renewal opportunity should be used to integrate neighboring VSAT networks.

2.2 With regards to the network protocols used in VSAT networks, the Meeting noted the widespread availability of Internet Protocol (IP) products and services and the work of the Organization on the development of provisions relating to the use of the Internet Protocol Suite (IPS) in aeronautical communications as well the use of the public Internet. As such, it was agreed that the use of IP and IPS would greatly facilitate the interconnection of various regional VSAT or terrestrial networks and would also provide their connection to the public Internet when and where necessary.

2.3 Noting that some air navigation service providers may not be sufficiently equipped to implement and maintain VSAT or other types of digital networks, the Meeting agreed that the option of leasing virtual private networks (VPN) should also be considered.

2.4 The Meeting completed the discussions on the issues associated with the proliferation of VSAT networks and, as a result, adopted the following conclusions to avoid or minimize such problems in the future:

### **Conclusion 5/16: – Implementation of very small aperture terminals (VSATs)**

That PIRGs:

- a) discourage the proliferation of VSAT networks where one/some of the existing ones can be expanded to serve the new areas of interest;
- b) work towards integrated regional/interregional digital communication networks with a single (centralized) operational control and preferably based on the Internet Protocol (IP); and
- c) give due consideration to managed network services (e.g. a virtual private network (VPN)), subject to availability and cost-effectiveness.

### **Conclusion 5/17: – Provisions for digital communication networks**

That ICAO:

- a) expedite the development of provisions relating to the use of the Internet Protocol Suite (IPS) in the aeronautical telecommunication infrastructure; and
- b) initiate the development of provisions governing the end-to-end performance of digital communication networks, irrespective of the technologies and protocols utilized therein.