



**International Civil Aviation Organization**  
**South American Regional Office - Regional Project RLA/03/901**  
*REDDIG Management System and Satellite Segment Administration*  
**Sixteenth Meeting of the Coordination Committee (RCC/16)**  
Lima, Peru, 18 to 20 March 2013

**Agenda Item 3: Report of the activities carried out to date since the last meeting of the Coordination Committee**

(Working paper presented by the Secretariat)

<b>SUMMARY</b>	
This working paper contains information on the activities carried out by the Project RLA/03/901 since the fifteenth meeting of the Coordination Committee to date.	
<b>Reference</b>	
<ul style="list-style-type: none"><li>• Report of the Fifteenth Meeting of REDDIG Coordination Committee (RCC/15), (Lima, Peru, 15-17 August 2012); and</li><li>• Tenth Meeting/Workshop of the ICAO SAM Implementation Group (SAM/IG/10) (Lima, Peru, 1-5 October 2012).</li></ul>	
<b>ICAO strategic objectives:</b>	<i>A – Safety; and C – Environmental protection and sustainable development of air transport.</i>

1. **Background**

1.1 The work plan for 2012 adopted by the fifteenth meeting of the Coordination Committee included the following activities, in addition to the routine tasks related to logistics operations, spare parts management and network maintenance:

- a) Follow-up to MEVA II/REDDIG interconnection activities;
- b) Implementation of new ATS speech circuits;
- c) Training programme for 2012;
- d) Alternation of the operation of the NCC and the management centre;
- e) Implementation of new services;
- f) Follow up on implementation of the new SAM digital network (REDDIG II) activities; and
- g) REDDIG logistics operations and spare parts management.

2. **Analysis**

***Follow-up to MEVA II/REDDIG interconnection activities***

2.1 The contract for MEVA II / REDDIG interconnection (Contract No. 22500187) between American Government Services Inc. (currently SES) and ICAO was signed on 25 March 2009. The MEVA II / REDDIG interconnection works were conducted from 1 to 17 March 2010.

2.2 Currently, all MEVA II / REDDIG ATS speech circuits operate with no problems. With regard to the AFTN circuits, the Lima-Atlanta circuit became operational on 24 July 2012, and the Maiquetia-Atlanta circuit, in September 2012, pending the operation of the Bogota-Panama, Maiquetia-Curacao and Brazil (Manaos)-Atlanta AFTN circuits.

2.3 The operation of the above indicated AFTN circuits does not depend on the MEVA II / REDDIG interconnection, but on the internal arrangements necessary at each of the sites involved in the connection. Therefore, the payment for these services is being carried out in accordance to indications in Contract No. 22500187, with the exception of the Brazil-Atlanta AFTN circuit.

2.4 In accordance with the Contract (paragraph 5.1.4), the services leasing costs through MEVA II / REDDIG interconnection remain without variation for a 120-month period, as of their date of operation. Their validity would be, March 2014 for the ATS speech circuits, and June 2015 for the AFTN circuits. In this respect, ICAO renewed the contract with the MEVA II service provider for an additional year (until March 2014).

### ***Implementation of new ATS speech circuits***

2.5 The ATS speech circuits planned to be implemented in REDDIG, with the aim of increasing speech communications availability between the ATS units located in Brazilian border zones currently being carried out through VHF – FM links, are the following:

- a) Tabatinga (Brazil) – Leticia (Colombia);
- b) Guajaramirim (Brazil) – Guayaramirín (Bolivia);
- c) Corumbá (Brazil) – Puerto Suárez (Bolivia);
- d) Foz do Iguazu (Brazil) – Cataratas (Argentina);
- e) Foz do Iguazu (Brazil) – Guaraní (Paraguay); and
- f) Uruguaiana (Brazil) – Libres (Argentina).

2.6 In view of the importance in the implementation of these circuits, RCC/14 meeting formulated Conclusion RCC/14-1 - *Implementation of new ATS speech circuits in REDDIG*, urging States involved to prepare an action plan for the implementation of the local links between the border ATS unit and the REDDIG node. In addition, RCC/15 meeting reiterated the importance of completing the implementation of such circuits, especially the Corumba-Puerto Suarez circuit. Regarding this circuit, Brazil informed it had completed the local links and that its implementation was of utmost urgency in view of pressing operational requirements.

2.7 Of the above indicated ATS speech circuits, to date only the Tabatinga-Leticia circuit has been implemented. With respect to the remaining circuits, some activities have been conducted, but have still to be completed; it is expected that the States involved inform on the progress made in this regards.

### ***Training programme for 2012***

2.8 As part of the 2012 work plan, the Course on ATS Message Handling System (COM-AMHS) and Interconnection Aspects took place in Lima, Peru, from 16 to 20 July 2012. 34 specialists from the aeronautical communications services operational and technical areas from 11 REDDIG member States participated, five of them through Project fellowships. The holding of this Course was arranged with the ATM Training Department of the Eurocontrol Air Navigation Services Institute, and was dictated by an instructor from said entity.

2.9 The Course's objective was to present information on the technical design of an AMHS system (data networks, server topology, user configuration, routing tables, monitoring and supervision tools, interconnection with other AMHS systems, etc.), as well as on operational topics, such as the design of an addressing and correct routing policy, strategies of flow migration from AFTN to AMHS, and particular attention to the contents related to interconnection of AMHS systems and operating procedures of resolution and escalation of incidences.

2.10 The Course received high acceptance from the participants, and greatly contributed in the AMHS interconnection between Ecuador and Peru. Therefore, the scheduling of other COM AMHS for 2013 has been deemed convenient.

#### ***Alternation of the operation of the NCC and the management centre***

2.11 In 2012, the alternation of operation of the NCC servers could not be performed; however, during the short periods of solar outage, March and September, only the reference carrier itself was switched temporarily from Manaus to Ezeiza.

#### ***Implementation of new services***

2.12 AMHS service between Ecuador and Peru: In July 2012, the technical interconnection and message transfer tests between the Ecuadorian and Peruvian AMHS systems MTAs were successfully completed, after which the operational service of the respective AMHS channel became operational. Even though there are a few AMHS systems interconnections in the Region, this is the first carried out between different AMHS manufacturers.

2.13 PVC for AMHS service between Peru and Venezuela. In September 2012, the PVC circuit between the Lima (SPIM) and Maiquetia (SVMII) stations was tested from end-to-end, at network level between the respective routers.

2.14 PVC for radar data exchange service between Brazil and Venezuela: In September 2012, verification was carried out to the PVC circuit between the Manaus (SBMN) and Maiquetia (SVMII) stations, with end-to-end tests at network level between the respective routers.

#### ***Follow up on implementation of the new SAM digital network (REDDIG II) activities***

2.15 RCC/15 meeting took note of the bidding process activities undertaken, such as the results of the offers presented at the bidding process evaluation results, and approved the REDDIG II evaluation process result, formulating Conclusion RCC/15-3 - *Approval of the REDDIG II bidding process evaluation results*. In addition, the meeting took under consideration the aspects involved in the negotiation process between ICAO and the company selected in the bidding process.

2.16 The negotiation process was conducted at the ICAO Technical Cooperation Bureau in Montreal, Canada, from 27 to 31 August 2012. Therein, representatives from the company selected, from ICAO and, as observers, representatives from Brazil and Trinidad & Tobago, participated. The objectives proposed were reached during the negotiation process, without exceeding the REDDIG II cost estimate approved at the Twelfth Meeting of Civil Aviation Authorities of the SAM Region (RAAC/12) (Lima, 3-6 October 2011).

2.17 During the negotiation phase, an analysis was also made to the REDDIG II contract to be signed between the company selected in the bidding process, and ICAO. The contract would be fulfilled in two phases, in Phase 1, to be carried out during the course of the last quarter of 2012, the company would present all final design documents, the installation procedures, the training manuals and the factory acceptance documents, on site and on network, which would be examined by the REDDIG member States and ICAO and, in Phase 2, the contract would be signed once all REDDIG II member States had cancelled their corresponding quotas (end of March 2013). As of the second quarter of 2013, REDDIG II would be purchased, installed and put in operation.

2.18 Further information on the REDDIG implementation activities are found in WP/04, related with Agenda Item 4.

### ***REDDIG logistics operations and spare parts management***

2.19 Logistic operations, mainly activated by equipment failures in the nodes, entail the delivery of REDDIG equipment or spare parts from the warehouse located at the ICAO Regional Office in Lima or from any other node to the nodes that require them. This include coordination with the manufacturers for repairs required, the payment of transportation and any other costs involved, as well as the support to States on import/export formalities.

2.20 During 2012, there have been twelve logistic operations. The summary of equipment failures and spare parts is shown in **Appendix A** to this paper.

2.21 The 2012 statistics on the number of major attentions to network nodes and their distribution by the type of equipment that gave rise to the attentions, are presented in Appendix B.

2.22 The availability of the network along 2012 is shown in the graphic in **Appendix C**.

### **3. Suggested action**

3.1 The Coordination Committee is invited to:

- a) Take note of the information provided;
- b) Review the activities undertaken since its previous meeting to date, described in Section 2 and attachments; and
- c) Analyze any other aspect deemed necessary regarding this Agenda Item.

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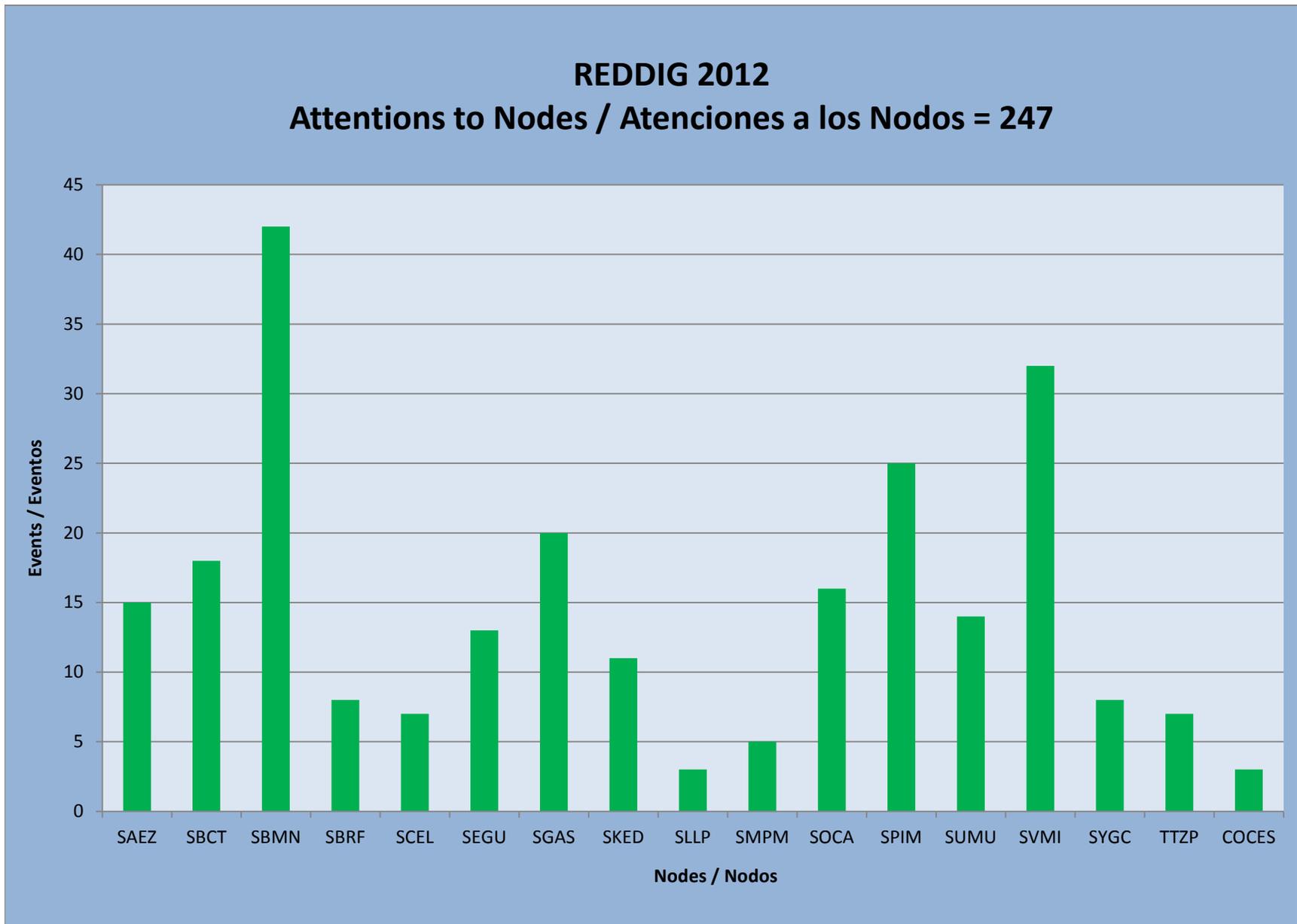
**APPENDIX A / APÉNDICE A**

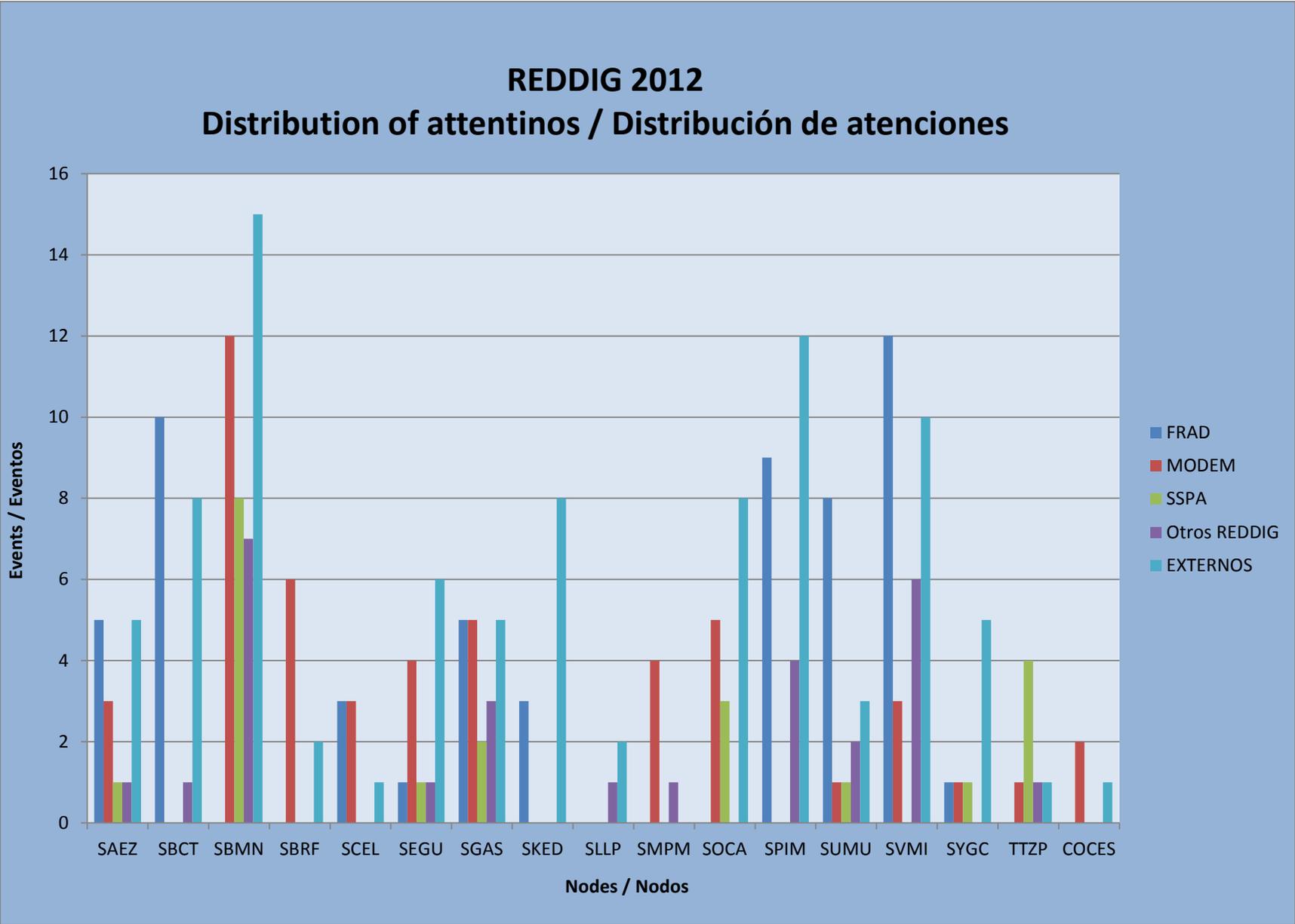
**LOGISTICAL OPERATIONS DURING 2012 /  
OPERACIONES LOGÍSTICAS DURANTE EL AÑO 2012**

**Summary of failures and parts / Resumen de averías y partes**

FRAD	Manufacturer/Fábrica: Memotec
(2)	Motherboard CX950 : (1) SBCT, (1) SUMU
(2)	Internal Fan : (2) SUMU
MODEM	Manufacturer/Fábrica: ViaSat
(7)	Quad Output P.S. : (1) SOCA, (1) SBMN, (1) SCEL, (1) SBRF, (1) NCC, (1) SMPM, (1) SVMI
(1)	BPM : (1) SEGU
(1)	24VDC P.S. : (1) SEGU
(1)	Internal Fan : (1) SBRF
SSPA	Manufacturer/Fábrica: Paradise Datacom
(3)	Internal Fan : (3) TTZP
Other / Otros REDDIG	
(2)	Converter RS232/485 : (1) SUMU, (1) SVMI
(1)	Monitor (PC Linux) : (1) SBMN
Other / Otros	
(1)	Short distance modem:(1) SOCA

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## REDDIG 2012

### Distribution of attention by equipment category/ Distribución de atención por categoría de equipo

