



MEVA II / REDDIG / 06

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**SIXTH COORDINATION MEETING
MEVA II / REDDIG**

(MR/6)

FINAL REPORT

(Lima, Peru, 7 - 8 May 2008)

INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FOURTH MEVA II / REDDIG COORDINATION MEETING

(MR/6)

(Lima, Peru, 7 – 8 May 2008)

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INDEX

| Contents | Page |
|---|-------------|
| Index | i-1 |
| Historical | ii-1 |
| ii.1 Duration and site of the Meeting..... | ii-1 |
| ii.2 Opening Ceremony | ii-1 |
| ii.3 Organization of the Meeting | ii-1 |
| ii.4 Working languages..... | ii-1 |
| ii.5 Agenda | ii-1 |
| ii.6 List of Working Papers | ii-2 |
| ii.7 List of Information Papers | ii-2 |
| ii.8 Schedule and Work Mode..... | ii-3 |
| ii.9 Attendance | ii-3 |
| ii.10 Conclusions/Decisions | ii-3 |
| List of Participants | iii-1 |
| List of Participants – General Information | iv-1 |
| Report on Agenda Item 1 | |
| <i>Follow up of the Action Plan for the MEVA II/REDDIG interconnection implementation</i> | 1-1 |
| Report on Agenda Item 2 | |
| <i>Analysis of MEVAII/REDDIG technical and administrative management</i> | 2-1 |
| Report on Agenda Item 3 | |
| <i>Analysis of considerations for MEVAII/REDDIG integration phase</i> | 3-1 |
| Report on Agenda Item 4 | |
| <i>Other matters</i> | 4-1 |

HISTORICAL

ii.1 **Duration and Site of the Meeting**

The Sixth MEVA II / REDDIG Coordination Meeting (MR/6) was held at the ICAO South American Regional Office in Lima, Peru, from 7 to 8 May 2008.

ii.2 **Opening Ceremony**

Mr. Carlos Stehli, Deputy Director from ICAO South American Office, opened the Meeting and welcomed the participants on behalf of Mr. Jose Miguel Ceppi, Regional Director of the ICAO South American Regional Office, and emphasized the importance of the Meeting and its results and highlighted the need to have a close inter-regional cooperation in order to adopt actions to achieve the interconnection, which would provide interoperability and required performance between VSAT MEVA II and REDDIG networks. Mr. Eliseo Salcedo, Director of Aeronautical Safety, from the General Direction of Civil Aviation of Peru welcomed the participants in the name of the Peruvian State and opened the meeting..

ii.3 **Organization, Officers and Secretariat**

Mrs. Dulce Roses from United States acted as Chairperson. Mr. Onofrio Smarrelli, Regional Officer Communications, Navigation and Surveillance from the ICAO SAM Regional Office acted as Secretary with the assistance of Mr. Julio C. Siu, Regional Officer, Communications, Navigation and Surveillance, from the ICAO NACC Regional Office, and Mr. Luis Alejos, REDDIG Administrator.

ii.4 **Working Languages**

The working languages of the Meeting were Spanish and English. The documentation and the Report of the Meeting were available to participants in both languages.

ii.5 **Agenda**

- Agenda Item 1:** Follow up of the Action Plan for the MEVA II/REDDIG interconnection implementation
- Agenda Item 2:** Analysis of MEVAII/REDDIG technical and administrative management
- Agenda Item 3:** Analysis of considerations for MEVAII/REDDIG integration phase
- Agenda item 4:** Other matters

ii.6 **List of Working Papers**

| WORKING PAPERS | | | | |
|-----------------------|--------------------|--|-------------|----------------------------------|
| Number | Agenda Item | Title | Date | Prepared and Presented by |
| WP/01 | -- | Revision of the Agenda, Explanatory Notes and Working Method for the Sixth MEVA II / REDDIG Coordination Meeting (MR/6). | 31/03/08 | Secretariat |
| WP/02 | 1 | Revision of the activities carried out for the implementation of the MEVA II REDDIG interconnection basec in the MEVA II REDDIG Action Plan atended during the Fifth MEVA II REDDIG Coordination Meeting held in Mexico City, from 3 to 5 October 2007. | 28/04/08 | Secretariat |
| WP/03 | 1 | Updated presentation of the response to RFP from MEVA II Service Provider, AGSP | | AGS |
| WP/04 | 1 | Revision of complementary information on maintenance and management control procedures specified in the MoU agreed among the MEVA II and REDDIG network members. | 29/04/08 | REDDIG Administrator |
| WP/05 | 2 | Revision of the Satellite Contingency Plan for the MEVA II and REDDIG networks. | 30/04/08 | REDDIG Administrator |
| WP/06 | 3 | Revision of considerations and technical-operational-administrative-institutional aspects analyzed in the previous MEVA II/REDDIG Coordination Meetings to continue the technical-operational analysis for the integration of the MEVA II and REDDIG networks. | 28/04/08 | Secretariat |

ii.7 **List of Information Papers**

| INFORMATION PAPERS | | | | |
|---------------------------|--------------------|---|-------------|----------------------------------|
| Number | Agenda Item | Title | Date | Prepared and Presented by |
| IP/01 | -- | General Information | 14/02/08 | Secretariat |
| IP/02 | -- | Follow up of the Action Plan for the implementation of the MEVA II/REDDIG interconnection | 07/05/08 | COCESNA |

ii.8 **Schedule and Work Mode**

The Meeting agreed to hold its daily sessions from 09:00 to 15:30 hours, with two breaks. The Meeting also agreed to work as a whole.

ii.9 **Attendance**

The Meeting was attended by 28 participants from 13 States and Territories, one International Organization, and the communications service providers, AGC and REDDIG. A list of participants is shown in pages iii-1 and iv-1 to iv-5.

ii.10 **Conclusions/Decisions**

| NUMBER | TITLE | PAGE |
|---------------|---|-------------|
| MR 06/01 | Aspects to be considered for the implementation of equipment for the MEVA II REDDIG interconnection | 1-2 |
| MR 06/02 | Adoption of the updated action plan | 1-3 |
| MR 06/03 | Speed up MEVA II Provider contract revision and signature as well as the public bidding for the MEVA II REDDIG interconnection necessary equipment purchase | 1-3 |
| MR 06/04 | Possible adjustment of REDDIG Administration budget approved during the Eleventh Coordination Meeting of Regional Project RLA/03/901 | 1-4 |
| MR 06/05 | Tentative action plan for the integration of MEVA II REDDIG network and draft MoU | 3-2 |

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Agenda Item 1: Follow up of the Action Plan for the MEVA II/REDDIG interconnection implementation

1.1 The Meeting recalled that the Action Plan for the implementation of the MEVA II REDDIG interconnection was elaborated during the Fourth MEVA II / REDDIG Coordination Meeting (MR/4), held in Lima, Peru, from 7 to 9 March 2007, and that GREPECAS Conclusion 14/52 (*Review for the adoption of the memorandum of understanding and implementation of the action plan for the MEVA II / REDDIG interconnection*) was formulated in order to urge States/Territories/International Organizations members of VSAT networks MEVA II and REDDIG to approve and execute their corresponding duties of the Action Plan.

1.2 The Fifth MEVA II/REDDIG Coordination Meeting (MR/05), held in Mexico City from 3 to 5 October 2007, for analyzing the progress in the execution of the MEVA II/REDDIG interconnection implementation Action Plan, took in consideration the RFP process, the revision of the MoU by the members of MEVA II and REDDIG networks, as well as the responses presented to the RFP by MEVA II Service Provider and REDDIG Administration, and so proceed to update the tentative Action Plan for implementation of the MEVA II and REDDIG VSAT network interconnection.

Response to the RFP

1.3 The Meeting recalled that during MR/5 Meeting, MEVA II Service Provider presented its response to the RFP in two volumes, Volume I presented the technical proposal, and Volume II, the economical proposal for the implementation of the MEVA II / REDDIG interconnection.

1.4 MR/5 Meeting considered that the response to the RFP needed a revision regarding some technical and economical aspects, formulating in this respect Conclusion MR 5/1 (*Review of the Response from the MEVA II Service Provider to the MEVA II / REDDIG RFP*) in which MEVA II provider was being requested to forward to the ICAO Mexico Regional Office the revision to the RFP before 19 October 2007.

1.5 The Meeting took note that the MEVA II service provider had sent the revised response to the RFP in November 2007 to ICAO, the same which was reviewed by the REDDIG Administration, and that additional comments were formulated to the revised response to the RFP.

1.6 MEVA II service provider presented during the Meeting the response to the comments, which is being presented as **Appendix 1A** to the report of this agenda item.

1.7 The Meeting, when analyzing the response to the comments, updated the list of equipment required for the MEVA II REDDIG interconnection, which are being presented as **Appendix 1B** to this part of the report.

1.8 The Meeting also recalled that MR/5 also reviewed the REDDIG Administration response to the RFP and that comments to the same were formulated during MR/5 Meeting.

Focal points nomination and activities to be carried out

1.9 The Meeting took note of the list of focal points involved in the MEVA II REDDIG interconnection, which is being presented as **Appendix 1C** to this part of the report.

1.10 The Meeting considered that focal points should facilitate information related with the following aspects necessary for the installation of the equipment listed in Appendix B electric power, physical space for the new elements, required electric protections, for which the following conclusion was formulated:

Conclusion MR 06/01: Aspect to be considered for the implementation of equipment for the MEVA II REDDIG interconnection

Taking into account the list of equipment necessary for the MEVA II / REDDIG networks interconnection, presented in Appendix 1B to this report, focal points listed for these interconnection works are urged to evaluate and inform ICAO, no later that **6 June 2008** about aspects to consider for the implementation of mentioned equipment, such as: electric power, physical space for the new elements, required electric protections, etc.

Application of the revised MoU

1.11 The Meeting recalled that the GREPECAS/14 Meeting, through Conclusion 14/52, urged MEVA II / REDDIG member Administrations to “study and review the feasibility to adopt the Memorandum of Understanding (MoU).” In this regard, the MR/5 Meeting modified only to specify the solution for implementation of the MEVA II / REDDIG interconnection. The integration agreements are contemplated to be carried out by the end of the interconnection. Essential technical-administrative content of the initial MoU version, which represents the main purpose of the document, has remained without major changes.

1.12 Also MR/5 agreed that the revised version of the MoU, which was adopted by this Meeting, should be re-circulated and that Members urged to sign the revised version of the MoU, formulating Conclusion MR 5/3 (*Adoption of the revised MoU for the MEVA II / REDDIG interconnection*).

1.13 In this regard, the Meeting took note that States/Territories/Organization members of the MEVA II REDDIG that have signed the MoU are Argentina , Brazil, Chile, Cuba, COCESNA, Guyana, Peru, United States and Uruguay. No objection was received about the revised MoU from the rest of the MEVA II and REDDIG network members.

AGS Contract revision and signature by the REDDIG Administration

1.14 The Meeting recalled that during the MR/5 Conclusion MR 5/5 (*Request for a Contract Proposal Between the MEVA II Service Provider and the REDDIG Administration*) was formulated in order that MEVA II Provider provide a contract form with the purpose that the REDDIG Administration be able to review it for its signature to continue with the interconnection implementation process.

1.15 The Meeting took note that MEVA II service provider sent the contract form to the Mexico Regional Office at the beginning of November 2007. This was forwarded to ICAO Montreal Technical Cooperation Bureau at the beginning of December 2007. The revision of the contract by the Technical Cooperation Bureau has been considerably delayed in spite of the various letters that the REDDIG Administration has sent in order to expedite contract analysis and signature.

1.16 The Meeting, in answer to TCB request took note that the contract presented by AGS should be modified in order to contain only the services that, due to the nature of the MEVA II REDDIG interconnection, could not be carried out by a third party.

1.17 In this regard the Meeting took note that ICAO would send a letter to AGS requesting to amend the contract in order to include only services for the MEVA II REDDIG interconnection, eliminating equipment.

1.18 The Meeting took note that the purchase of the equipment necessary for the MEVA II REDDIG interconnection would be done through a process of international public bidding convened by TCB. In this regard the REDDIG Administration will prepare the necessary documentation in order that TCB could initiate the bidding process taking into consideration what is indicated in Appendix B to this part of the report.

1.19 The Meeting, taking into account the above mentioned aspects, updated the Action Plan, which is presented as **Appendix 1D** to this part of the report. In this regard, the following conclusion was formulated:

Conclusion MR 06/02 Adoption of the updated action plan

That States/Territories/International Organizations Members of the MEVA II and REDDIG networks, as well as MEVA II Service Provider and the REDDIG Administration: execute the updated Action Plan for the implementation of the MEVA II/REDDIG interconnection being presented in Appendix 1D to this part of the report.

1.20 The Meeting, when taking note of the changes adopted in the equipment purchasing process and in modifications of the contract with AGS service provider, and considering that this had generated a delay of almost six months in the interconnection implementation, recommended that ICAO, through TCB, expedite contract revision and processes of MEVA II Provider and of public bidding for the necessary equipment to be purchased for MEVA II REDDIG interconnection. In this regard, the Meeting adopted the following conclusion:

Conclusion MR 06/03 Speed up MEVA II Provider contract revision and signature and as well as the public bidding for the MEVA II REDDIG interconnection necessary equipment purchase.

That ICAO, through its Technical Cooperation Bureau (TCB), speed up the necessary processes for the MEVA II Service Provider contract revision and signature, as well as the international public bidding to be convened for the purchase of necessary equipment for the MEVA II REDDIG interconnection in order to comply with timing stipulated in the MEVA II REDDIG interconnection Action Plan.

1.21 REDDIG Members informed that depending on results of the equipment bidding process (equipment cost), as well as MEVA II Service Provider contract revision covering services to be implemented for the MEVA II REDDIG interconnection, there is a possibility to adjust the REDDIG administration budget, which was approved during the Eleventh Coordination Meeting of Project RLA/03/901 (REDDIG Management System and Satellite Segment Administration). In this regard, the Meeting formulated the following conclusion:

Conclusion MR 06/04 Possible adjustment of the REDDIG administration approved during the Eleventh Coordination Meeting of Regional Project RLA/03/901

That the REDDIG Administration, taking into account the new possible costs that may be generated by the bidding of the equipment necessary for the MEVA II REDDIG interconnection, as well as new service costs that the MEVA II Service Provider (AGS) may charge, proceed if necessary to the adjustment of the budget of the REDDIG administration approved during the Eleventh Coordination Meeting of Project RLA/03/901.

APÉNDICE 1A/APPENDIX 1A

COMMENTS FROM REDDIG ADMINISTRATION TO THE AGS COVER LETTER – REV 3 CONCERNING MEVA II – REDDIG INTERCONNECTION RFP RESPONSE (Appendix A WP 02 of MR/06)

Paragraph 3.1.2.1 Circuits Requirements

Should the criteria that COCESNA is interconnected with REDDIG be maintained, it should be specified that the PVCs from Bogota to COCESNA and from COCESNA to Bogota would be carried out via the REDDIG.

Answer: AGS understands and agrees.

Paragraph 3.1.2.2 Equipment Requirements

Caracas

- It should be indicated that the SLIM LID type (FXS or E&M) is specified during the Site Survey.

Answer: AGS agrees to determine SLIM LID type during Caracas site survey.

- Only 1 Splitter (RX) and 1 Combiner (TX) are being considered, whereas in the block diagrams, 2 Splitters and 2 Combiners are mentioned. The list should be corrected according to what they will use.

Answer: Table should list three (3) Splitters and three (3) Combiners for both Caracas and Bogotá. AGS REV3 block diagrams currently reflect quantity three (3) two-port Splitters and quantity three (3) two-port Combiners.

Bogotá

- Only 1 Splitter (RX) and 1 Combiner (TX) are being considered, whereas in the block diagrams, 2 Splitters and 2 Combiners are mentioned. The list should be corrected according to what they will use.

Answer: Table should list three (3) Splitters and three (3) Combiners for both Caracas and Bogotá. AGS REV3 block diagrams currently reflect quantity three (3) two-port Splitters and quantity three (3) two-port Combiners.

Paragraph 3.1.3 Link Budgets

AGS maintains as a premise that the implementation of their interconnection solution is subordinated to the authorization granted by the MEVA II members to move the MEVA II network to copol vertical.

Answer: AGS will implement the transition to Vertical Co-Pol upon award of the MEVA II – REDDIG Interconnect contract. This transition will be done in conjunction with the bandwidth expansion necessary to accommodate MEVA II – REDDIG circuits.

Paragraph 3.1.5 Outdoor Unit (ODU) Requirements

It should be indicated to AGS that in case new SSPA (with integrated BUC) are required to be installed in each one of the REDDIG nodes, such new SSPA have to be PARADISE DATACOM brand, series COMPACT OUTDOOR (-CO). This is required, in order to maintain the functionality of the Monitor and Control (M&C) software, which is installed in the LINUX PC of the REDDIG nodes.

In such way it can be avoided to lose M&C's easiness over the new SSPA, as well as AGS' quoting for the service of finding a solution to any discrepancy that could arise with the TERRASAT equipment with respect to the M&C software.

Answer: Paradise 75-Watt, C-Band, 5.85 – 6.425 GHz, Compact Outdoor SSPA with L-Band Interface (HPAC-2075A-CO). Updated drawing to reflect.

Paragraph 4.0 Appendix 1F (ICAO)

- b) Regarding new Modem Linkway's connection to the Memotec equipment, the solution we recommend is to employ the "Baseband Switch" in order to maintain the automatic switch of chain, without having any manual change of the new Modem Linkway's V.35 wire.

Answer: This will be decided after the site survey

AGS Volume II Economical Response

- a) and c) AGS explains that the non recurrent total charges will be maintained and will be assumed by the Colombia and Venezuela nodes, with the exception of non recurrent charges for the equipment and transportation corresponding to Ecuador, which are being annulled.

Answer: REV3 reflects this change.

- d) AGS will not present unit price details neither for equipment nor for the vices. For them, the price an integral package.
(The REDDIG Administration presented unit prices).

Answer: AGS presented a firm, fixed priced solution.

Attachment A: Link Budgets

- AGS employs FEC $\frac{3}{4}$ for all calculations, both in MEVA II and in REDDIG nodes.
- As it is of general knowledge, REDDIG employs FEC $\frac{1}{2}$.
- Employing FEC $\frac{3}{4}$ demands more power in the transmission station, in order to obtain a higher Eb in the receiver station / not required.
- Employing FEC $\frac{3}{4}$ requires approx. 3 dB more power than with FEC $\frac{1}{2}$.

- We were under the understanding that MEVA II also employed FEC $\frac{1}{2}$, and that is the premise we have. Therefore, AGS has to be asked to confirm which FEC they are presently employing in their network.
- According to the calculations presented by AGS for Venezuela and under the consideration that MEVA II employs FEC $\frac{3}{4}$, the total potential required for two carriers (1 of REDDIG FEC $\frac{1}{2}$ and 1 of MEVA II FEC $\frac{3}{4}$) would be 23.69 W, which would indicate that a SSPA of minimum 47.38 W would be required. In consequence, the current 40 W SSPA operating in Venezuela should be changed by others of major potential, for example, of 70 W.
- Continuing with the calculations presented by AGS for Venezuela, in the case that MEVA II employs FEC $\frac{1}{2}$, the total potential required for two carriers would be 17.63 W, which would indicate that a SSPA of minimum 35.26 W would be required. In consequence, based on AGS' calculations, it would not be necessary to change the SSPA in Venezuela.

Answer: MEVA II will remain at $\frac{3}{4}$ FEC.

Attachment B: Block Diagram

- 1 MEVA II Node at REDDIG Site
 - BUC 60W TERRASAT are erroneously indicated.
 - Reasons for some equipment connections are not understood.

Answer: This is a new requirement. The Terrasat 60-watt BUC was part of AGS's original solution. AGS will revise solution to include Paradise 75-Watt, C-Band, 5.85 – 6.425 GHz, Compact Outdoor SSPA with L-Band Interface (HPAC-2075A-CO). Updated drawing to reflect.

Attachment C: Implementation Schedule

We consider that the implementation schedule presented by AGS should be oriented towards the working group's objectives, in order to obtain a balance of interests between supplier and customer, and consequently achieve the effectiveness of the interconnection soonest.

Answer: AGS agrees.

APENDICE 1B/APPENDIX 1B

| Location | Additional Equipment/parts Needed | Quantity |
|----------|---|----------|
| COCESNA | Linkway 2100 with frame-relay card and V.35 cable | 1 |
| | Memotec DAV Card | 1 |
| | Memotec FXS SLIM LID | 2 |
| | Memotec V.35H Card | 1 |
| | 2-port L-band Splitter | 1 |
| | 2-port L-band Combiner | 1 |
| Curacao | Memotec DAV Card | 1 |
| | Memotec FXS SLIM LID | 1 |
| | Memotec V.24 Card | 1 |
| Caracas | Linkway 2100 with frame-relay card and V.35 cable | 1 |
| | Memotec DAV Card (2 for MUX A, 2 for MUX B) | 4 |
| | Memotec FXS SLIM LID (3 for MUX A, 3 for MUX B) | 6 |
| | 2-port L-band Splitter | 3 |
| | 2-port L-band Combiner | 3 |
| | Paradise 75W BUC | 2 |
| Bogota | Linkway 2100 with frame-relay card and V.35 cable | 1 |
| | Memotec V.35H Card | 1 |
| | Memotec E1 DIM (1) for MPS A, (1) for MPS B to be installed in slot 2 | 2 |
| | 2-port L-band Splitter | 3 |
| | 2-port L-band Combiner | 3 |
| Jamaica | Memotec DAV Card | 1 |
| | Memotec FXS SLIM LID | 1 |
| Miami | Memotec 960e Chassis | 1 |
| | Memotec 960e CPU | 1 |
| | Memotec 960e Power Supply | 1 |
| | Universal I/O | 1 |
| Panama | Memotec DAV Card | 1 |
| | Memotec FXS SLIM LID | 2 |
| | Memotec Multi I/O card | 1 |
| San Juan | Memotec DAV Card | 1 |
| | Memotec FXS SLIM LID | 1 |
| | Memotec Multi I/O card | 1 |
| Ecuador | E-1 Daughter Card for Memotec A and Memotec B | 2 |

APENDICE 1C/APPENDIX 1C**PUNTOS FOCALES PARA COORDINAR LA IMPLEMENTACIÓN DEL PLAN DE ACCIÓN
INTERCONEXIÓN MEVA II/REDDIG****FOCAL POINT FOR COORDINATING THE IMPLEMENTATION OF THE ACTION PLAN MEVA
II/REDDIG INTERCONNECTION**

| ESTADO ORG./ STATE ORG. | NOMBRE-TITULO/ NAME- TITLE | DATOS DE CONTACTO/ CONTACT INFORMATION |
|--|---|---|
| BRASIL | <p>Athayde Licerio Viera Frauche Coordinador de la REDDIG</p> <p>Jorge Mauricio Motta Coordinador Técnico REDDIG</p> | <p>DECEA Av. General Justo 160 Castelo, Rio de Janeiro, Brasil Tlf 55 21 21016584 Fax: 55 21 21016219 Email dcte5@decea.gov.br</p> <p>CINDACTA IV Av. Do Turismo sin Taruma Manaus – AM, Brasil Tlf: 55 92 3652 5536 Fax: 55 92 3652 5501 Email: mauriciojmm@cindacta4.decea.gov.br</p> |
| COLOMBIA | <p>Sr Edgar Clavijo</p> <p>Grupo de proyectos Internacionales</p> | <p>Unidad Administrativa Especial de Aeronáutica Civil - UAEAC Dirección Telecomunicaciones Aeropuerto Internacional El Dorado Tel.: (571) 266-3672 Fax: (571) 222-3486</p> |
| ECUADOR | <p>Sr. Raúl Avellán Oña Asuntos técnicos:/Technical matter</p> <p>Sr. Víctor Acosta Caizapanta Asuntos administrativos /Administrative matter</p> | <p>Aeropuerto José Joaquín Olmedo Guayaquil, Ecuador Tel.: (59342) 692829 Cel.: (59384) 362441 REDDIG: 2308 / 2309 Email: ravellan1@yahoo.com</p> <p>Dirección General Aviación Civil Quito, Ecuador Tel.: (5932) 2567822 Cel.: (5939) 9664148 Mail: victor_acosta@dgac.gov.ec</p> |
| PERÚ | Sr José Luis Paredes Dávila | <p>CORPAC S.A. Tel.: (511) 708 1196 Cel.: (511) 99582 5997 Mail: jlparedes@corpac.gob.pe</p> |

| | | |
|-----------|--|---|
| VENEZUELA | <p>Luis E. Escobar Jefe Telecomunicaciones Aeropuerto Maiquetía</p> <p>Wilton R. Linarez Coordinador de Telecomunicaciones</p> | <p>Aeropuerto Simon Bolivar, Edif.. ATC, Piso 2 Maiquetía, Venezuela Tel: 58 212 355 2143 Fax: 58 212 355 1412 Email: escoguil5@cantv.net l.escobar@inac.gov.ve</p> <p>Instituto Nacional de Aeronáutica Civil (INAC) Altamira Sur, Torre Británica, Piso 2 Caracas, Venezuela Tel: + 58 212 277 4403 Fax: + 58 212 277 4403 E-mail w.linarez@inac.gov.ve</p> |
| COCESNA | <p>Sr. Roger Perez Gerente Estación Honduras /Honduras General Manager</p> | <p>COCESNA Tel. + 504 234 3360 ext. 1461 Fax + 504 234 3682 E-mail rperez@cocesna.org</p> |

UPDATED ACTION PLAN FOR IMPLEMENTATION OF MEVA II AND REDDIG INTERCONNECTIONS
PLAN DE ACCIÓN ACTUALIZADO PARA LA IMPLANTACIÓN DE LAS INTERCONEXIONES MEVA II Y REDDIG

Date/Fecha: April/Abril2008

| Item No. | Action / Acción | Responsible / Responsable | Completion Date / Fecha de Finalización | Status- Encountered Difficulties / Estado-Dificultades encontradas |
|----------|---|--|---|--|
| 1 | 2 | 3 | 4 | 5 |
| 1 | RFP Completion/Finalización del RFP | COCESNA | 30-Apr-07 | Completed / Finalizado |
| 2 | Required connections: / Conexiones requeridas: Aruba COCESNA Ecuador Colombia Peru Venezuela Brazil / Brasil Panama United States / Estados Unidos Jamaica Curacao / Curazao | MEVA II Service Provider and REDDIG Administration / Proveedor Servicio MEVA II y Administración REDDIG | 30-Apr-07 / 30-Abr-07 | Completed / Finalizado |
| 3 | Identification of Current Equipment / Identificación de Equipo Actual | MEVA II Service Provider and REDDIG Administration / Proveedor Servicio MEVA II y Administración REDDIG | 28 Sep-07 | Completed / Finalizado |
| 4 | Completion of SLA / Finalización de SLA | MEVA II Service Provider and REDDIG Administrator / Proveedor Servicio MEVA II y Administración REDDIG | 30 Nov07 | Valid/Válido It is part of the Service Contract/Es parte del Contrato de Servicio |

| Item No. | Action / Acción | Responsible / Responsable | Completion Date / Fecha de Finalización | Status- Encountered Difficulties / Estado-Dificultades encontradas |
|----------|--|---|---|--|
| 1 | 2 | 3 | 4 | 5 |
| 5 | Review of RFP / Revisión de RFP | MEVA II and REDDIG Members / Miembros MEVA II y REDDIG | 29 June -07/ 29 Junio 07 | The RFP was reviewed and approved by all MEVA II / REDDIG Member Administrations. / El RFP fue revisado y aprobado por todas las Administraciones miembros de las redes MEVA II y REDDIG. |
| 6 | Proposals response / Respuesta de propuestas | MEVA II Service Provider and REDDIG Administration / Proveedor Servicio MEVA II y Administración REDDIG | 26 Sep.-07 | The response for the RFP from the MEVA II Service Provider and REDDIG Administration was presented at the MR/5 Meeting/ Las respuestas al RFP por parte del Proveedor de Servicio MEVA II y la Administración de la REDDIG se presentó en la Reunión MR/5. |
| 7 | Proposals review / Revisión de propuestas | Coordination meeting / Reunión de coordinación | 5 Oct.-07 | The proposal was reviewed in the MR/5 Meeting. / La propuesta se revisó en la Reunión MR/5 |

| | | | | | |
|----|---|--|--|------------|--|
| 8 | Focal Point nomination / Nombramiento Punto Focal | Send a letter to MEVA II / REDDIG Member Administrations / Envío carta a las Administraciones miembros de las redes MEVA II y REDDIG. | ICAO Regional Offices / Oficinas Regionales OACI | 15 Oct. 07 | The ICAO Regional Offices sent to the States/Organization involved in the MEVAII REDDIG interconnection a letter in order to nominate focal points. Las oficinas regionales de la OACI enviaron una carta invitando los Estados/Organización involucrados en la interconexión la nominación de puntos focales . |
| | | Focal point designation/ Designación punto focal | MEVA II and REDDIG Members involved / Miembros de MEVA II y REDDIG involucrados | 30-Oct-07 | All the States/Organization members of MEVA II and REDDIG network involved in the interconnection nominated focal points. Todos los Estados/Organización miembros de la REDDIG y MEVA II involucrados en la interconexión nominaron puntos focales |
| 9 | Application of MoU reviewed / Aplicación del MoU revisado | MEVA II / REDDIG Member Administrations / Administraciones miembros de las redes MEVA II y REDDIG | | 30-Oct-07 | The ICAO Regional Offices sent to the States/Organization of MEVA II and REDDIG network in order to sign the MoU reviewed. |
| 10 | Review and acceptance of equipment costs for the MEVA II / REDDIG interconnection by the REDDIG Member Administrations / Revisión y aceptación por parte de las Administraciones Miembros de la REDDIG sobre costo de equipamiento para la interconexión MEVA II / REDDIG | All the REDDIG Member States / Todos Estados miembros de REDDIG | | 30 Oct-07 | No comments were received No se recibieron comentarios al respecto |

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|----|---|--|------------|--|
| 11 | Review and acceptance of equipment costs for the MEVA II / REDDIG interconnection by the MEVA II Member Administrations involved / Revisión y aceptación por parte de las Administraciones Miembros de la MEVA II involucradas sobre costo de equipamiento para la interconexión MEVA II / REDDIG | Aruba, Curaçao, Jamaica, Panama, USA (Miami and Puerto Rico) and COCESNA / Aruba, Curaçao, Jamaica Panamá, USA (Miami y Puerto Rico) y COCESNA | 30 Oct -07 | No comments were received No se recibieron comentarios al respecto |
| 12 | Review and acceptance of proposed recurrent costs for the MEVA II / REDDIG interconnection/ Revisión y aprobación costos recurrentes propuestos para la interconexión MEVA II REDDIG | MEVA II/ REDDIG Member Administrations involved / Administraciones Miembros de la MEVA II y REDDIG involucradas | 30 Oct- 07 | No comments were received No se recibieron comentarios al respecto |
| 13 | Revised MoU Signature / Firma del MoU Revisado | MEVA II and REDDIG Members / Miembros MEVA II y REDDIG | 30 Nov 07 | The following States sent the MoU reviewed signed/Los siguientes Estados enviaron el MoU revisado firmado: Argentina, Brasil, Chile, Cuba, COCESNA, Estados Unidos, Guyana, Peru y/and Uruguay |

| | | | | |
|----|---|---|--|---|
| 14 | <p>Review, approval and signing of contracts or contract amendments to carry out the MEVA II / REDDIG interconnection presented by the MEVA II Service Provider / Revisión, aprobación y firma de los contratos o enmienda de los mismos para llevar a cabo la interconexión MEVA II/REDDIG presentada a través del Proveedor de Servicio de la MEVA II</p> | <p>MEVA II Member Administrations involved and REDDIG Administration / Administraciones Miembros de la MEVA II involucradas y Administración REDDIG</p> | <p>30 Nov 07/ June 2008/ Junio 2008</p> | <p>The REDDIG members assigned REDDIG Administration the revision and signature of AGS contract. The ICAO Technical Cooperation after reviewed the AGS contract considered the necessity to separate the no recurrent and recurrent costs. The decision took long time from December 2007 to April 2008. For the acquisition of the equipment a bid is necessary and so ICAO Technical Cooperation will proceed with this process. For the services cost AGS is to modify the contract in order to include only the service costs.</p> <p>Los miembros de la REDDIG asignaron a la Administración de la REDDIG la revisión y firma del contrato. La Cooperación Técnica de la OACI después de revisar el contrato de AGS consideró la necesidad de separar los costos recurrentes de los no recurrentes. La decisión fue tomada después de un largo periodo de diciembre de 2007 a abril de 2008. Para la adquisición del equipo se procederá a un proceso de licitación pública y por lo cual Cooperación Técnica de la OACI procederá según este proceso. Para los costos de los servicios se consideró que AGS modificara el contrato de forma tal que incluyera solamente los costos de los servicios..</p> |
|----|---|---|--|---|

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|----|---|---|--|---|
| 15 | To ensure that all MEVA II and REDDIG nodes work with IS-IR Satellite, using Band C transponder with US/Latin America hemispheric beam and Co-Linear Vertical polarization / Asegurar que todos los nodos de la MEVA II y REDDIG operen en el satélite IS-1R, empleando transpondedores de banda C con haz hemisférico US/Latin America y polarización co-lineal vertical. | MEVA II Service Provider and REDDIG Administration/ Proveedor Servicio MEVA II/Administración REDDIG | 30 Nov 07 June 08/ Junio 08 | No change of polarity was executed. AGS is will proceed upon the signature of the contract for this interconnection. No se ha efectuado todavía el cambio de polaridad. AGS procedera cuando se firme el contrato para esta interconexión. |
| 16 | Equipment and spare parts acquisition for MEVA II/REDDIG interconnection/ Adquisición de equipamiento y repuestos para la interconexión MEVA II / REDDIG. | REDDIG Administration and MEVA II involved Member Administrations / Administración de la REDDIG y Administraciones Miembros de la MEVA II involucradas | 14 Dec 07/14 Dic 07 End of July 08/Fin de julio 08 | The ICAO Technical Cooperation informed that the bid process for the acquisition of equipments through a bid process will take a duration of approximately two months. La Cooperación Técnica de la OACI informó que el proceso de licitación para la adquisición de los equipos durara dos meses aproximadamente. |
| 17 | Site survey for Bogota, Caracas and COCESNA, / Inspección sitio para Bogota, Caracas and COCESNA, | MEVA II Service Provider and REDDIG Administration / Proveedor MEVA II y Administración REDDIG | 15 Jan 08/15 Ene 08 End of July 08/Fin de Julio 08 | Site survey is considered as part of the services to be provided. El estudio de sitio se considera parte de los servicios a ser provistos. |
| 18 | Site preparation for equipment installation for MEVA II / REDDIG interconnection / Preparación de los sitios para albergar equipamiento para la interconexión MEVA II / REDDIG | Colombia, Venezuela and/y COCESNA | 30 Jan 08/30 Ene 08 Aug08/Ago08 | |
| 19 | Delivery of purchased equipment at the required sites. / Entrega de equipamiento adquirido en los sitios requeridos | MEVA II Service Provider and REDDIG Administration / Proveedor de Servicio MEVA II y Administración REDDIG | 15 Feb 08 Sep08 | |

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|----|---|--|---|--|
| 20 | Equipment installation / Instalación equipamiento | MEVA II Service Provider and REDDIG Administration / Proveedor de Servicio MEVA II y Administración REDDIG | 14 Mar-08 Oct08 | |
| 21 | Satellite line-up, configuration of site equipment and NCC for the interconnection/ Line-up satelital, configuración equipamiento en sitio y NCC para interconexión | MEVA II Service Provider and REDDIG Administration / Proveedor de Servicio MEVA II y Administración REDDIG | 21 Mar-08 Oct08 | |
| 22 | End-to-end trials for voice and data circuits / Pruebas de extremos a extremos para los circuitos de voz y datos | MEVA II Service Provider and REDDIG Administration / Proveedor de Servicio MEVA II y Administración REDDIG | 27 Mar-08 Nov 08 | |
| 23 | System Performance Evaluation / Evaluación de la performance del sistema | MEVA II Service Provider and REDDIG Administration / Proveedor de Servicio MEVA II y Administración REDDIG | 25 Apr-08/25 Abr-08 Dec08/Dic08 | |
| 24 | Service acceptance / Aceptación de los servicios / | MEVA II / REDDIG Member Administrations / Administraciones miembros de las redes MEVA II y REDDIG | 30 Apr-08/30 Abr-08 Jan09/Ene09 | |
| 25 | MEVA II / REDDIG Interconnection Implementation / Implantación de la interconexión MEVA II / REDDIG | MEVA II / REDDIG Member Administrations, MEVA II Service Provider and REDDIG Administrator / Administraciones miembros de las redes MEVA II y REDDIG, Proveedor Servicio MEVA II y Administración REDDIG | May-08/ Mayo-08 Feb09 | |

Legend / Leyenda:

MoU: Memorandum of Understanding / Memorando de Entendimiento

RFP: Request for Technical and Economic Proposal / Solicitud de Propuestas Técnicas y Económicas

SLA: Service Level Agreement / Acuerdo de Nivel de Servicio

Agenda Item 2: Analysis of MEVA II/REDDIG technical and administrative management

2.1 Under this agenda item, the Meeting examined aspects related to the technical and administrative management of the MEVA II/REDDIG as well as to the corresponding Satellite Contingency Plan.

ASPECTS RELATED TO THE TECHNICAL AND ADMINISTRATIVE MANAGEMENT OF THE MEVA II / REDDIG

Information complementary to Appendix B of the MoU

2.2 The Meeting reviewed the terms of reference of the MoU related to the Maintenance and Control Management, pointing out the following:

- a) Paragraph 3.2.1 of Appendix B of the MoU, the interconnection implementation will not imply modifications to the technical, operational and control management of MEVA II and REDDIG networks, with the exception of necessary maintenance procedures detailed in paragraph 3.2.5 of the referred MoU Appendix B.
- b) Paragraph 3.2.2 of MoU Appendix B: Configuration, synchronization, supervision and control of additional MODEMS that participate in the interconnection and are installed in MEVA II nodes will be done by the REDDIG NCC.
- c) Paragraph 3.2.3 of MoU Appendix B: Band width, circuit number and type installed in the MEVA II node for communications with REDDIG will be administered by the REDDIG. .

2.3 Also, the meeting was informed that when any problem arises in a REDDIG node with the MODEM and other equipment involved in the interconnection with the MEVA II, can be applied, after coordinations are done between NCCs (paragraph 3.2.5.1 of MoU Appendix B) and as part of the maintenance activities to be carried out by the local technicians of the REDDIG node. The procedure PROC/MOD/001 for determining fault in the MODEM equipment, and that is attached as **Appendix 2A**.

REDDIG Party financial responsibilities

2.4 Also, the Meeting reviewed the financial responsibilities corresponding to REDDIG members, pointing out the following:

- a) Paragraph 4.1.1 of MoU Appendix B: Additional equipment to be installed in REDDIG nodes, with requirements of the MEVA II MODEMS will be purchased by REDDIG members, according established requirements for the interconnection and necessary coordinations.

- b) Paragraph 4.2.1 of MoU Appendix B: Spare parts for the additional equipment to be installed in the REDDIG nodes, with the requirement of the MODEMs and other MEVA II devices, will be purchased by the REDDIG and would conform part of the spare parts of the REDDIG.
- c) Paragraph 4.3.1 of MoU Appendix B: Additional equipment to be installed in the REDDIG nodes that would route communications requirements with MEVA II nodes will be maintained by respective REDDIG State members under the coordination of the REDDIG Administration.

2.5 Terms for hiring the implementation of MEVA REDDIG interconnection corresponding to REDDIG Members are formulated under referred financial considerations.

Procedure in case of new services and/or service configuration changes

2.6 REDDIG Administration informed that Meeting that for the agreement expressed in paragraph 4.4.3. of Appendix B of the MoU: *“The circuits configures for communications between a MEVA II node that would have MODEMs participating in the REDDIG interconnection would be administered by the REDDIG”*, and specifically for the case of new services and/or service configuration changes the procedure would be the following:

- a) The MEVA II Member should request by e-mail, through its authorized representative, the respective requirement to the focal point of the REDDIG Administration.
- b) Request should contain a clear and complete description of the new services and/or service configuration change as well as the tentative date for the activation of the new service or change.
- c) The REDDIG Administration will respond to the MEVA II Member, after completing the feasibility analysis of not affecting operability of MEVA II and REDDIG networks, with the technical requirements that should be covered for the request activation. The REDDIG Administration, in the same way, will provide the MEVA II Member the respective quotation for the new service and / or service configuration change for its revision and acceptance.
- d) Once accepted the quotation by the MEVA II Member, REDDIG Administration will proceed with the implementation of the requirement according the terms stipulated in the quotation, as well as carrying out necessary coordinations with the MEVA II service supplier.

Focal Points for the REDDIG Administration and AGS

2.7 The Meeting took note that for operation and coordination activities expressed in the MoU regarding Maintenance and Control Management, focal points will be the following:

- a) REDDIG Administration
Focal point: Luis Alejos
Place: Manaus, Brasil
Telephone: 55-92-3652 5714
REDDIG telephone: 3611
E-mail: lat@lima.icao.int

Information of the REDDIG Operation Centre is:

Place: Manaus, Brasil
Telephone: 55-92-3652 5713
Fax: 55-92-3652 5712
REDDIG Telephone: 3601 y 3602
Attention schedule: 24x365

- b) AGS
Focal Point: Ron Teske
Place: Woodbine, Maryland - USA
Telephone: 1-301-474-2332
E-mail: ron.teske@americom-gs.com

Information of the Technical Operation Centre (TOC) is:

Place: Woodbine, Maryland – USA
Telephone: 1-410-970-7700
Fax: 1-410-795-5893
Attention schedule: 24x365

Aspects for the operation and maintenance of the MEVA II service provider

2.8 In the same way, MEVA II service provider informed that aspects for the operation and maintenance are detailed in the technical proposal (Volume I) provided for the MEVA II REDDIG interconnection (refer to Appendix A of WP/02 MR/6)

SATELLITE CONTINGENCY PLAN

2.9 The Meeting was informed that the REDDIG Administration reviewed the contractual terms of the contract with PanAmSat, provider of the satellite segment of the REDDIG network, regarding cases of failure of their satellite service. As information, it was indicated that since year 2006 PanAmSat has been absorbed by INTELSAT.

2.10 The Meeting took note that in the referred contract there are specific clauses of Confirmed Failure in the transponder, as well as for Satellite Replacement and/or Communications Payload sent through it. The referred clauses are being presented below:

- *Confirmed Failure – Service Attachment (Transponder Segment Services, paragraph 2.2 of PanAmSat-ICAO document of Full Service Agreement)*

PanAmSat is able, but will not be required not obliged to, employ certain redundant equipment as substitute for a service transponder or to provide service to the client using other transponder that fulfils with the service specifications.

- *Replacement of Satellite and/or Communications Payload – Service Attachment (Transponder Segment Services, paragraph 5.0 of PanAmSat-ICAO document of the Full Service Agreement)*

PanAmSat can replace the Satellite or one of its Communications Payload with other Satellite (Replacement Satellite) in the same orbital position or in other orbital position to which the Replacement Satellite could be authorized to be positioned. In such circumstances, provided that substantially comparable substitute capacity is available in the Replacement Satellite, PanAmSat will provide such capacity to the client and the agreement (or contract) will continue with the new service in place of the original for the rest of the hired period.

2.11 **Appendix 2B** of this part of the report, presents a copy of the extract of the Full Service Agreement document of PanAmSat with ICAO for the use of the spatial segment referred to the service.

2.12 For the renewal of the contract between ICAO and INTELSAT, the REDDIG Administration will verify that all clauses in case of failure of the transponder and complete failure of the satellite. The present contract expires on 31 December 2008.

2.13 The Meeting took note of the satellite contingency plan presented by the MEVA II service provider and the REDDIG Administration indicated below:

- a) case of confirmed transponder failure, INTELSAT should be contacted for the application of the corresponding clause.
- b) In case of total failure of the satellite, INTELSAT should be contacted for the application of the corresponding clause.
- c) General technical consideration in case of satellite change in application of the corresponding clause or in case of a new contract for a different satellite:
 - Re-addressing of all the antennas to the new satellite
 - Modification of the data base of the NCC of the Linkway system (configuration parameters of the satellite, frequencies of the carriers, modems output of each station, bootfiles of all stations, etc.)
 - Re-adjustment of SSPA power of all stations with the new data base
 - Recharge of the new bootfiles in all stations
 - “Line-up” of all the stations
- d) In case of satellite change, in order to continue with the communications services that should be provided through the interconnections, the services of the MEVA II network should be resettled in the same satellite and compatible transponder in which REDDIG services will be sent.

2.14 The meeting took note that, according to information provided by INTELSAT, a new satellite called INTELSAT 14 (IS-14) is programmed to be launched in the second quarter of 2009 and will replace the actual satellite IS-1R (formerly called PAS-1R) where MEVA II and REDDIG networks are operating its services. Satellite IS-14 will occupy the same orbital position, 45W, than IS-1R. The prevision INTELSAT has to transfer communications payload of IS-1R to IS-14 is October 2009. REDDIG Administration and MEVA II Service Provider will inform timely through ICAO of any progress given by INTELSAT in this respect.

2.15 The Meeting was informed that contingency procedures or satellite restoration are established by satellite segment providers according to the service protection level consigned in the contract with its clients.

2.16 In this respect, AGS presented an example of a service restoration procedure of INTELSAT satellite segment provider being presented as **Appendix 2C** to this part of the report.

2.17 The Meeting, when taking note of the above paragraphs, recommended that the service protection levels of the satellite segments where MEVA II and REDDIG networks operate should be the same in order to guarantee the continuity of communication being sent between referred networks.

2.18 In this regard, the Meeting took note that MEVA II Service Provider as well as the REDDIG Administration had the same protection levels of the satellite segment service with INTELSAT. Protection levels of both networks are type Premium and non-preemptible (Service contract for INTELSAT satellite IS-1R).

APÉNDICE/APPENDIX 2A

| | |
|--|-------------------------------|
| PROC MODEM 001 MODEM LINKWAY 2100 | Version 1V01 |
| | Page 1 of 3 |

1. GENERAL FEATURES

1.1. **OBJECTIVES:** Verify the correct operation of MODEM LINKWAY 2100.

1.2. **PERSONNEL:** The person in charge of the procedures should proceed from the staff assigned to operate and manage the Node. The minimum qualifications requirements are:

- a) Engineer or Technician in Telecommunications
- b) Knowledge of maintenance of REDDIG equipment.
- c) Knowledge of Windows system.

1.3. **BASIC REQUIREMENTS TO PERFORM THE PROCEDURES :**

- a) REDDIG Equipment: NMS equipment of the Station.
- b) Complementary equipment: Spectrum Analyzer.

1.4. **REFERENCE DOCUMENTATION:**

- a) User Manual Windows 2000.
- b) MODEM LINKWAY 2100 Manual.
- c) REDDIG Operation & Maintenance Manual (Issue B/B1)

2. PROCEDURES:

2.1. Verifying the Modem LED's status:

- a) On the modem front panel, check the status of the following LED's: Power, Sat, LO1, LO2 e ODU.

Status of LED's:

Power. It should be lit. If it is off, check the fuses in the distribution board and at the rear of the unit, replace if necessary.

Sat. It should be continuously lit.

If it is Off: Indicates that the modem is not receiving reference bursts from the NCC.

Verify, if possible, that the NCC is working (the network may be down for maintenance of the NCC).

Check if the LNB is operating by inserting a splitter at the modem RF input connector and monitoring the satellite with a spectrum analyzer. It should be possible to see the NCC carrier bursting on carrier frequency # 1. See appendix 7.4 of Operation & Maintenance Manual for settings and frequencies.

If it is Flashing: Indicates that the modem is receiving and has synchronized to the reference bursts from the NCC. It is waiting to synchronize transmissions; this will normally take less than two minutes. If the modem stays in this state, check if the SSPA/ block up-converter appears to be working, and check the cables. Switch the modem and SSPA to the dummy load and put it into the test mode to transmit a continuous modulated carrier. It should be possible to read the RF output power from the Linux M&C screen and measure the RF output power at the SSPA monitor coupler with a power meter. If there is no output, check the output of the modem with a spectrum analyzer. There should be a modulated carrier of 1.25Msym/s or 625ksym/s wide visible.

If it is On: Indicates that the modem has reception and transmission synchronized.

IO1: Should be lit. This indicates that the modem FRAD interface is operating and if it is lit, the Linux PC screen should also be Green.

ODU: Should be off. If is lit or flashing on a new or replacement modem it indicates that the firmware or software is at a lower revision. Contact the NCC to have the latest version loaded.

IO2: Should be off (the interface card is not fitted in the REDDIG system).

For further diagnostics it is necessary to use the COM port access. See section 5.2. of Operation & Maintenance Manual

2.2. Verifying TDMA performance by displaying burst statistics.

Access the modem by Linux PC or portable PC and use the command “cacgettxburstst”.

2.3. Verifying Frame Relay performance.

Access the modem by Linux PC or portable PC and use the command “**frccifstat**”. The **frccifstat** command is sent to a terminal to display the state of the active Frame Relay interface. The command displays the status of each PVC defined on the interface.

Check the state column to verify the status of the PVC:

tspup—The satellite interface is functioning, but the Frame Relay interface is not functioning.

ifup—The satellite interface is not functioning, but the Frame Relay interface is functioning.

iftspup—The satellite interface is functioning; the Frame Relay interface is functioning, and the terminal is waiting for the other site to function.

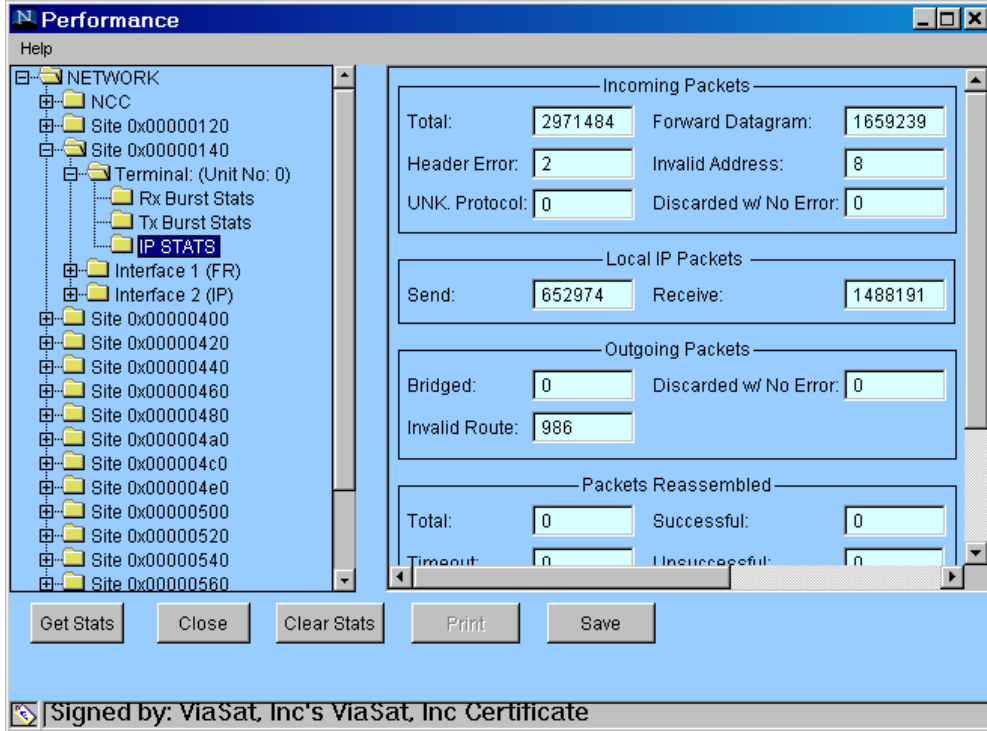
tspupconn—The PVC is ready to carry out user traffic.

Access the modem by Linux PC or portable PC and use the command “**prtstat hdlcID**”.

The **prtstat hdlc**(physical interface ID) command displays physical and HDLC level statistics for an interface. Example: “prtstat hdlc0”

2.4. Verifying IP performance. (Only NCC operator)

IP Performance is easily monitored using the Linkway NMS Performance Home Page window rather than the Diagnostic Testing window.



2.5. Verifying the LNB status.

Access the modem by Linux PC (via Minicom) or portable PC (via HyperTerminal) and use the command “**cacmodeminfo**”.

APÉNDICE/APPENDIX 2B

ATTACHMENT 2

SERVICE ATTACHMENT (TRANSPONDER SEGMENT SERVICES)

| Satellite Information | |
|--------------------------------|---------------------------------|
| Satellite: | PAS 1R |
| Planned Orbital Location: | 45° WL |
| Uplink Beam/Band: | US/Latin America Copolar C-Band |
| Downlink Beam/Band: | US/Latin America Copolar C-Band |
| Nominal Transponder Bandwidth: | 36 MHz |
| Frequency Translation: | 2225 MHz |

1.0 GENERAL. This "Service Attachment" sets forth additional terms and conditions regarding the Transponder Segment Service (as defined in the Service Order), as well as information regarding the Satellite which provides such service. Unless otherwise specified in the Service Order, that portion of the Service Transponder which comprises Customer's Service shall be power and bandwidth limited, consisting of a Transponder segment, equivalent to the amount of bandwidth specified in the Service Order and associated power on the Service Transponder (a "Transponder Segment"). In the event PanAmSat approves any Customer request to increase power whereby Customer's Service becomes power limited (i.e., the proportion of power exceeds the proportion of bandwidth allocated), then PanAmSat shall increase the Service Fee to reflect such increase in power. Unless otherwise expressly defined herein, defined terms shall have the meanings ascribed to them in the Agreement and in the Satellite Information above.

2.0 CONFIRMED OUTAGES AND FAILURES.

2.1 Confirmed Outages. If, after the Service Start Date, the Transponder Segment Service fails to meet the Service Specifications for a continuing and uninterrupted period of one (1) hour, the Transponder Segment Service shall, subject to the Master Service Agreement and PanAmSat's confirmation, be deemed to have suffered a "Confirmed Outage" entitling Customer to Outage Credits, as defined in the Master Service Agreement. All determinations as to Confirmed Outages shall be made on an individual Transponder Segment by Transponder Segment basis.

2.2 Confirmed Failures. If, after the Service Start Date, the Transponder Segment Service fails to meet the Service Specifications for: (a) a cumulative period of ten (10) hours during any consecutive 30-day period, or (b) any period of time following a catastrophic event under circumstances that make it clearly ascertainable that a failure described in clause (a) will occur, the Transponder Segment Service shall, subject to the Master Service Agreement and PanAmSat's confirmation, be deemed to have suffered a "Confirmed Failure." All determinations as to Confirmed Failures shall be made on an individual Transponder Segment by Transponder Segment basis. In the event of a Confirmed Failure of the Transponder Segment Service, PanAmSat may, but shall not be required to, (x) employ certain redundant equipment units on the Satellite ("Spare Equipment"), as a substitute for a Service Transponder or (y) provide Service to Customer using another Transponder which meets the Service Specifications.

3.0 CARRIER TRANSMISSION PARAMETERS AND FREQUENCY ASSIGNMENTS.

3.1 Reference Parameters. All Customer Transmission Plans, and any subsequent revisions thereto, must be approved by PanAmSat in accordance with the Agreement in order to minimize interference between co-frequency transponders and to reduce interference to and from adjacent satellite networks. Unless otherwise specified in the Service Order and the

Transmission Parameters attached thereto, the reference parameters set forth below and in Table 2 for the applicable information rate promised shall be controlling. Table 2 lists the reference transmission parameters for the digital carrier types described therein based on the following:

- QPSK modulation with Rate 1/2 FEC is assumed for all carrier sizes;
- for bit rates lower than 1.544 Mbps, the use of sequential decoding is assumed;
- the occupied bandwidth is assumed to be 1.12 times the symbol rate;
- the allocated bandwidth is assumed to be 1.40 times the symbol rate, rounded up to the nearest multiple of 25 kHz; and
- the carrier spacing is a multiple of 25 kHz.

3.2 Transmission Alternatives. Carrier sizes other than those listed in Table 2 may be permitted, subject to prior review and approval by PanAmSat and additional service charges may also apply. For example, when large earth stations are employed, an increase in transponder capacity may be achieved by the use of Rate 3/4 FEC rather than Rate 1/2. BPSK modulation may also be employed, in conjunction with either Rate 3/4 or Rate 1/2 FEC.

3.3 Frequency Assignment. PANAMSAT reserves the right to assign and/or reassign Customer's space segment allocation (and its other customer's space segment allocations) within the Service Transponder or to other Transponders within the applicable Uplink and/or Downlink Beam of the Satellite in order to minimize mutual interference between adjacent satellites, to ensure compliance with applicable coordination agreements with other networks, and/or to permit efficient loading of the Satellite. Except in emergency circumstances, PANAMSAT shall notify Customer of any changes to its initial allocation as soon as reasonably practicable prior to such change and shall use reasonable efforts to minimize disruption to Customer's Service during any such change.

4.0 SATELLITE PERFORMANCE CHARACTERISTICS. The Satellite is positioned at the Planned Orbital Location set forth in the Satellite Information. Each Transponder in the Downlink Beam shall have a Nominal Transponder Bandwidth as specified in the Satellite Information using the frequencies and polarizations shown in Table 1 below. The communication system translates uplink transmissions by a net frequency subtraction of the Frequency Translation value set forth in the Satellite Information.

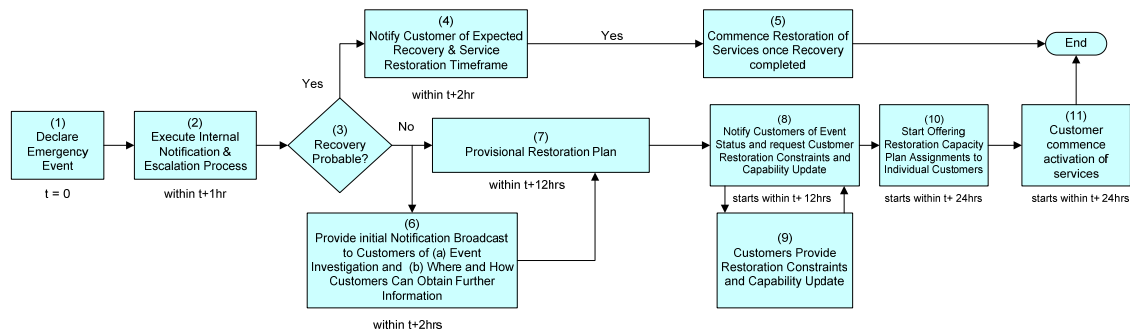
5.0 REPLACEMENT OF SATELLITE AND/OR COMMUNICATIONS PAYLOAD. During the Service Term, PanAmSat may replace the Satellite or one of its communications payloads (e.g. Ku or C-band) with another satellite (a "Replacement Satellite") at the same orbital location or at such other orbital location to which such Replacement Satellite may be authorized by the FCC to be located. In such circumstances, provided there is available substantially comparable substitute capacity on the Replacement Satellite, PanAmSat shall provide such capacity to Customer (the "Replacement Transponder Segment Service") and this Agreement shall continue with such Replacement Transponder Segment Service in

APENDICE 2C/APPENDIX 2C**EXAMPLE****INTELSAT RESTORATION PROCESS FLOWCHART IN THE EVENT OF SATELLITE FAILURE**

As a satellite owner and operator, Intelsat is in the premier position to assure the Government a legitimate and executable restoration plan, because we control 52 satellites in orbit in the Pacific Ocean, CONUS, Atlantic Ocean, and the India Ocean Regions. As a testament to Intelsat's flexibility, a failure of the 802 satellite required restoration of 10 transponders of capacity / customers / networks. 66% of the customer's networks were restored within 24 hours and the entire satellite was restored in just under four days.

A non-preemptible service by definition cannot be interrupted or cancelled to restore other services. Only preemptible services can be interrupted to restore other services. In the event any non preemptible service provided by Intelsat fails, restoration may be made on the affected satellite or on another Intelsat satellite then in orbit where the capacity shall provide similar coverage and equivalent.

Intelsat has an unmatched track record in restoring 100% of services at the time of partial/full spacecraft failure. As far as the restoration procedure is concerned, Intelsat further modified its process based on exhaustive internal and external analysis of the events post IS-804 failure. The streamlined restoration process includes lessons learned from that event and it has been audited to ensure that Intelsat's response is optimized when faced with a similar event. With investment in the IT technology, this process is further enhanced by taking advantage of an automated restoration optimization tool, called SatPack. A summary of this process is described below:

**Notes:**

1. Timelines provided are broad estimates only and are given as cumulative time.
2. Sequence of events depicted are not necessarily reflect the actual sequence of events that might take place during a satellite restoration effort.

The customers are notified within 2 hours from the time that the state of emergency has been declared whether or not the satellite is recoverable. Intelsat provides initial notification and subsequent notifications of the anomaly to customers based on the state of the investigation at the time. Once it has been assessed that the recovery is not probable, a provisional restoration plan will be provided by Intelsat within 12 hours. Within 24 hours, line up messages will be

issued based on the final restoration assignments. Intelsat General Secure Operation Center (ISOC) and Intelsat Carrier Management Center (CMC) remain the best means of communication during the satellite failure with staff working 24 x 7 until all services are restored.

The sheer size of the fleet allows for flexibility and rapid response to failures and unexpected conditions. This has been demonstrated in restoration of the 802 customers and will continue to be a primary advantage in working directly with satellite operators for meeting critical network requirements.

Agenda Item 3: Analysis of considerations for MEVAII/REDDIG integration phase

3.1 Within this agenda item, the Meeting commented that the interconnection/integration between CAR/SAM Regions digital networks has as purpose to improve the effectiveness, efficiency, quality and availability voice and data communication circuits of aeronautical fixed service (AFS), reducing costs, as well as the facilitation of the introduction of ATN and its applications in an evolutive way. In the same manner, reference was made to what was formulated in the RAN/CAR/SAM/3 Meeting and coordinated through GREPECAS about integration / interconnection of digital networks, as well as the principal advantages that would be obtained with the integration of both networks, included as **Appendix 3A** to this part of the report.

3.2 The Meeting recalled that for the III MEVA II/REDDIG Coordination Meeting (MR/3) agreement was reached regarding that the total homogeneous or complete integration solution represented the best technical operational solution, since this would permit having a unified control, making easiest management and implementation of required services between CAR and SAM Regions. However, it was determined that the implementation of the integral solution as an initial stage would be difficult to achieved considering existing divergent aspects in the REDDIG and MEVA II operation and administration. In this regard, Conclusion 3/1 was defined “*Technical-Operational Analysis for the MEVA II / REDDIG Interconnection Solution*” in which it was concluded that the based option based in the technical-operative analysis would be the integration, but the most viable in the initial stage would be the interconnection, with the objective of the networks integration after a period of five years, once the interconnection is implemented and under operation.

3.3 The Meeting reviewed agreements and achievements obtained in the analysis of aspects for the homogeneous integration of the MEVA II and REDDIG networks. These aspects included cost benefit analysis, necessary resources definition, operation proposal elaboration, required services control and other aspects related to attaining this objective. The following appendices present these achievements:

- **Appendices 3B and 3C:** present communications requirements between regions SAM and CAR and regions SAM and NAM identified for the integration.
- **Appendix 3D:** architecture and operation for the integration of both networks and technical considerations.
- **Appendix 3E:** institutional-administrative aspects for both networks integration, which initial scope was the implementation of this integration in two phases: initial phase and consolidated phase.

3.4 Considering the present stage of MEVA II and REDDIG networks interconnection, when the necessary equipment for its implementation is being acquired, and taking into account equipment compatibility and similarity in both networks nodes, the Meeting considered that the equipment cost for the integration phase should be minimum since this same equipment would be used.

3.5 The Meeting took note that the MoU revised during the MR/04 Meeting establish aspects related to the interconnection only; therefore, the elaboration of a new MoU for the integration or an extension could be considered.

3.6 Considering the agreement to continue with the preparation of aspects related to the integration of both networks, the Meeting considered that, for the next Coordination Meeting, the Secretariat should elaborate a study on the initial considerations for the implementation of the integration of the MEVA II REDDIG networks. This study should include aspects related with the assessment of advantages and disadvantages of the integration, the revision and update of the present and potential requirements, the analysis of the technical, administrative and institutional aspects, cost benefit aspects and an initial study on a MoU for the integration, for which the following conclusion was formulated:

Conclusion MR 6/05 Study about the initial considerations for the implementation of the MEVA II and REDDIG networks integration

That the Secretariat elaborate for the next MEVA II REDDIG Coordination Meeting a study on the initial considerations about the implementation of the MEVA II REDDIG Networks integration, taking into account:

- a) advantages and disadvantages of the integration,
- b) revision and update of the present and potential requirements of the CAR to SAM and SAM to NAM regions
- c) necessary technical-operative-administrative-institutional aspects
- d) cost-benefit analysis
- e) initial study on the convenience of the extension or the elaboration of a new MoU for the MEVA II REDDIG integration

3.7 Likewise, the Meeting recalled the ALLPIRG/5 orientation with respect to avoiding the proliferation of VSAT networks, and urged the members to continue this process of networks integration and the promotion of its benefits.

3.8 The Meeting required that the reports of MEVA II REDDIG Interconnection Coordination Meetings and of the MEVA II REDDIG Interconnection Task Force Meetings be included in the WEB pages of REDDIG and MEVA II. Presently, these reports are only available in the web sites of the ICAO Regional Offices.

APPENDIX 3A

References for Digital Networks Integration

- a) The Third Regional Air Navigation Caribbean and South America Meeting (RAN CAR/SAM/3) (Buenos Aires from October 5th to 15 of 1999) alert GREPECAS the need to develop criterions and pertinent orientation in order to obtain the interconnection among several available and emerging digital networks. Recommendation 9/1 – *Implementation of digital networks to improve present SFA and make easy the ATN introduction.*
- b) In order to set up criterions for digital networks interconnection in a regional an interregional level, two informal meetings: CAR/SAM Informal Meeting 01/00 (Mexico, from June 26 to 29, 2000) and CNS-CAR/SAM Informal Meeting 01/01 (Bogota, Colombia, from October 9 to 11, 2001) were held, as well as MEVA and REDDIG networks Interconnection Coordination Meeting (Lima, from November 11 to 12, 2002). In these meetings several proposals of interconnection alternatives were displayed, including the adoption of an memorandum of understanding for the establishment of an homogeneous digital platform based in MEVA II and REDDIG networks interconnection, as well as the transitory implementation of Colombian network nodes in Jamaica, Panama and COCESNA; it was agreed that these measures be applied until the MEVA II / REDDIG interconnection is obtained.
- c) The GREPECAS/10 Meeting (Las Palmas, Spain, October 23 to 27, 2001) adopted a preliminary orientation material referred to digital networks interconnection for aeronautic communications (Conclusion 10/27). Also, the Conclusion 10/28 indicates the need of capacity provision of massive information exchange through aeronautic communications digital networks.
- d) GREPECAS/12 Meeting (La Habana, Cuba, June 7 to 11, 2004) highlighted the importance to continue efforts in order to achieve interconnection and homogeneous inter-performance among CAR/SAM regional digital networks, considering present and future communication requirements of voice and data and, in this sense, developed Conclusion 12/39 – *Additional inter-connection points for regional and inter-regional digital networks.*
- e) GREPECAS/13 Meeting, based in the recommendation of CNS/COMM/4 Meeting, considered:
 - o the need to continue interconnection/inter-performance efforts between two networks, using, in this respect, the coordination meetings of ICAO Technical Cooperation Projects, related with MEVA II y la REDDIG.
 - o research alternatives, such as implementation of an homogeneous type interconnection or the establishment of interconnection points for a non-homogeneous solution.
 - o it is important to achieve the purpose of interconnection/inter-performance between MEVA II and REDDIG and consequently, Conclusion 13/70 (implementation of *MEVA II - REDDIG* interconnection/inter-performance agreements) was formulated.
- f) The Fifth Meeting of Group ALLPIRG/Advisory (ALLPIR G/5), held in OACI'S installations, Montreal, Canada, from March 23 to 24, 2006, related to the VSAT networks implementation, formulated the Conclusion 5/16 – *Implementation of small opening terminals (VSAT)*, which deters VSAT networks spread where one or some of the current networks could expand to be able to assume new areas of interest.

NETWORK INTEGRATION ADVANTAGES WITH RESPECT TO THE PRESENT SITUATION .

1. For communications between any of the MEVA II and REDDIG nodes only a sole satellite hop would be used, maintaining the minimum delay in voice and data communications
2. Transparent and independent operation for users of groups without interconnection, no interference on the traffic of referred groups.
3. Being an homogeneous network in terms of technology and equipment, the interconnection and interoperability between MEVA II and REDDIG would be done without important additional investments in principal equipment or stations.
4. Flexibility in incrementing new interconnection users in any of the networks.
5. Regional digital networks interoperability principles are abide with.
6. Facilitates the implementation of ATN applications.

APPENDIX 3B

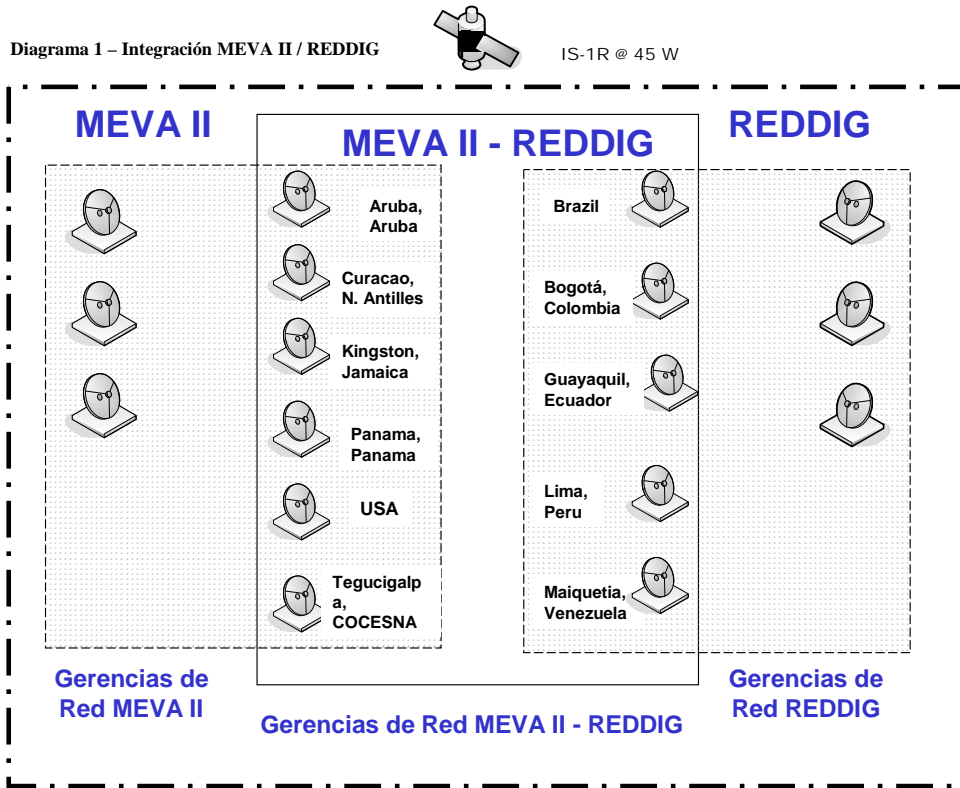
| Table No. 1 – Summary of CAR/SAM interoperability requirements | | | | | | | | | | | | | | | | | | |
|--|--------------------------|--------------|--------------------------|-----------------|-------|----------|------------|--------------------|-------------------|------------------------|-----------------|-----------------------|----------------------|---------------|----------------------|-----------------|----|-----------------|
| No. | State/Station | ARUBA, Aruba | COLOMBIA Barranquilla | Bogota | Cali | Medellin | San Andrés | ECUADOR, Guayaquil | JAMAICA, Kingston | NETHERLANDS A. Curacao | PANAMÁ, Panamá | PUERTO RICO, San Juan | VENEZUELA Caracas | Josefa Camejo | COCESNA, Tegucigalpa | Total per State | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 1 | ARUBA, Aruba | | | | | | | | | | | | | | | V | | 1 Voz |
| 2 | COLOMBIA | | | | | | | | | | | | | | | | | 8 Voz + 1 Datos |
| 2.1 | Barranquilla | | | | | | | | | V | V | | | | | | | |
| 2.2 | Bogotá | | | | | | | | | | | D,V | | | | | V | |
| 2.3 | Cali | | | | | | | | | | | V | | | | | | |
| 2.4 | Medellin | | | | | | | | | | | V | | | | | | |
| 2.5 | San Andrés | | | | | | | | | | | V | | | | | | |
| 3 | ECUADOR, Guayaquil | | | | | | | | | | | | | | | | V | 1 Voz |
| 4 | JAMAICA, Kingston | | | V | | | | | | | | | | | | | | 1 Voz |
| 5 | NETHERLANDS A. Curacao | | | V | | | | | | | | | | D,V | | | | 2 Voz + 1 Datos |
| 6 | PANAMÁ, Panamá | | | V | D,V | V | V | V | | | | | | | | | | 5 Voz + 1 Datos |
| 7 | PUERTO RICO, San Juan | | | | | | | | | | | | | | | D,V | | 1 Voz + 1 Datos |
| 8 | VENEZUELA | | | | | | | | | | | | | | | | | 3 Voz + 2 Datos |
| 8.1 | Caracas | | | | | | | | | | | | D,V | | | | | |
| 8.2 | Josefa Camejo | V | | | | | | | | | | | | | | | | |
| 9 | COCESNA, Tegucigalpa | | | | V | | | | V | | | | | | | | | 2 Voz |
| | Total per Station | 1 Voz | 3 Voz | 2 Voz + 1 Datos | 1 Voz | 1 Voz | 1 Voz | 1 Voz | 1 Voz | 2 Voz + 1 Datos | 5 Voz + 1 Datos | 1 Voz + 1 Datos | 2 Voz + 2 Datos | 1 Voz | 2 Voz | | | |

Note: Additionally to requirements expressed in Table No. 1, ATN routers interconnection should be added, as well as new services for the radar data Exchange and other communications services, all of which is in process of revision an definition. .

APPENDIX 3C

| Table No. 2 – Summary of NAM/SAM interoperability requirements | | |
|---|--|-------------|
| No. | Communications services | Type |
| 1 | 2 | 3 |
| 1 | AFTN trunk circuit BRAZIL , Brasilia – UNITED STATES | Data |
| 2 | AFTN trunk circuit PERU , Lima – UNITED STATES | Data |
| 3 | AFTN trunk circuit VENEZUELA , Caracas – UNITED STATES | Data |
| 4 | Interconnection No. 1 of ATN routers (Plan in revision) | Data |
| 5 | Interconnection No. 2 of ATN routers (Plan in revision) | Data |
| 6 | Other future services | Data |

APPENDIX 3D



Note: The dark line with dots represents an operator of total network

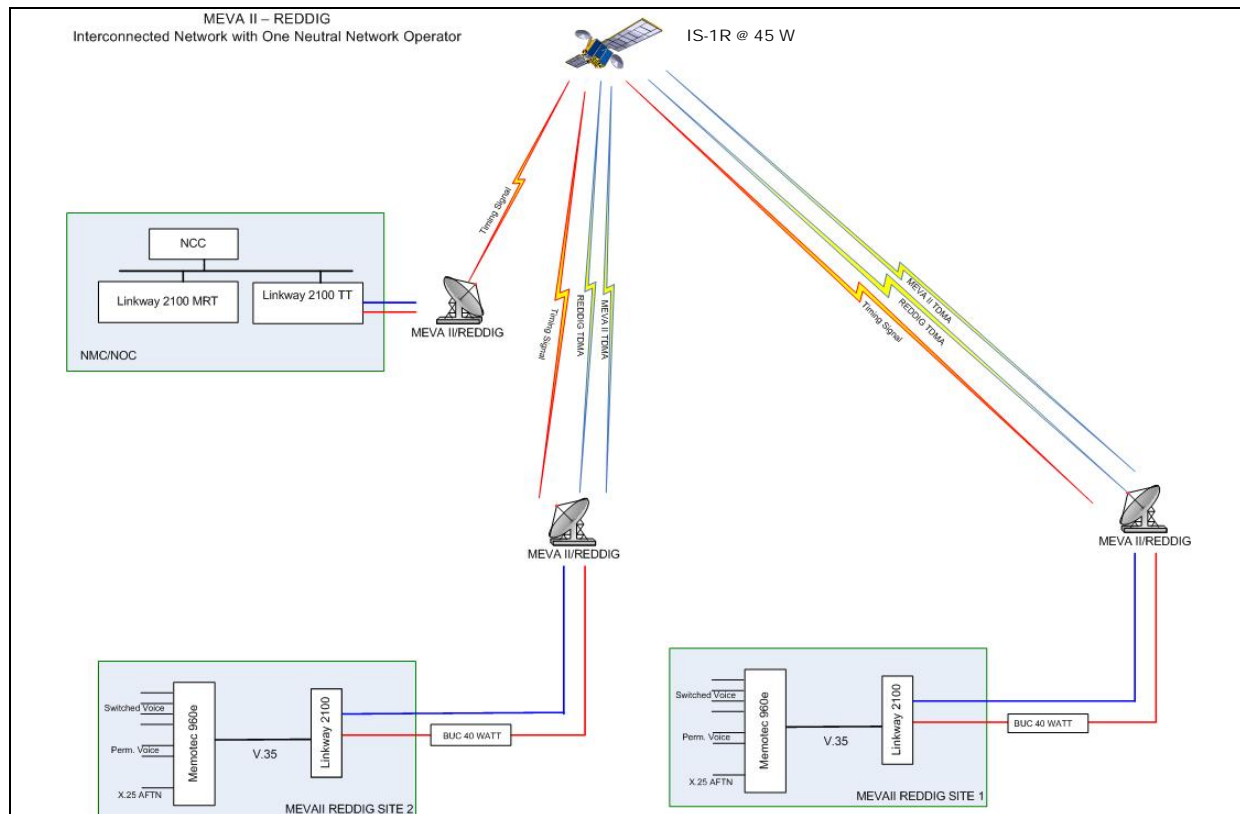


Diagram 2 – MEVA II – REDDIG Networks interconnected with only one Network Operator

TECHNICAL CONSIDERATIONS

1. Interoperability is possible since the technical characteristic of both (MEVA II and REDDIG) are similar: network topology type *Full Mesh*, using modality of satellite access type TDMA/Frame Relay, IS 1R satellite with beam addressed over the United States / Latin America, operation frequency in band C and vertical lineal polarization. In the same way, both network use similar equipment and compatible, such as those corresponding to FRAD and satellite MODEM.
2. One of the fundamental parameters for the establishment of an homogeneous MEVA II – REDDIG network is synchronization of MEVA II and REDDIG carriers. This synchronization could be done with the MRT (Master Reference Terminal, located in the Viasat Linkway MODEM) from the NCC of the REDDIG or of the MEVA II.
3. Due to the MRT importance and to avoid collapsing the network when this fails, it is necessary to have an alternate MRT, as presently does the REDDIG. When a MRT fails, the NCC will use the alternate to maintain the network synchronism. This change will be automatic and transparent for the network users. The principal and the alternate MRT should be geographically separated and joined in a direct way through a communications mean. For the MEVA II – REDDIG integration, the MRT of the REDDIG (operating in Manaus) and the MRT of the MEVA II could be considered.
4. MEVA II and REDDIG networks, being integrated in the same transponder, could operate with different groups of nodes or users according to the traffic sent between them and to respective frequencies being used. In this way, a group with all the REDDIG nodes and other with all the MEVA II nodes could be established, as well as a last group including REDDIG and MEVA II nodes requiring voice and data service between them. This third users groups would be conformed by the nodes of Colombia, Ecuador and Venezuela (REDDIG), and Aruba, Curazao, Panamá, Jamaica, Puerto Rico and COCESNA (MEVA II). Only one reference carrier (MRT) would be used for the synchronization of the homogeneous network.
5. In the same way, the following particular premises could be identified:
 - a) Network Management Centre
 - Equipment redundancy y with hemispherical geographical diversity.
 - Use of the MRT and AMRT with geographical diversity to avoid solar interference
 - Dedicate circuit between MRT and AMRT.
 - Operation of the Network Management Centre during 24x7x365 in English, Spanish and Portuguese languages.
 - Use of carriers up to 1.25 Msps with QPSK and FEC ½. modulation.
 - Conformation of three groups of users NAM-CAR, SAM and NAM-CAR /SAM.
 - Minimum availability: 99.95%.
 - The network is exclusive and closed for the use of member States and should not be interconnected to any Public Network.
 - b) Remote Nodes
 - Redundant equipment desirable.
 - Minimum availability: 99.95%.
 - BER equal or above 10^{-6} .

APPENDIX 3E***Institutional arrangements for the MEVA II and REDDIG VSAT networks integration implementation***

The MEVA II/REDDIG Interconnection Task Force in its first meeting (Mexico City, 3-5 May 2006), proposed the adoption of two types of institutional arrangements to achieve the implementation of an integrated-homogeneous network resulting from the integration of VSAT MEVA II and REDDIG networks, which would be implemented in two stages described as follows:

- a) **Initial Stage**: Elaboration of a Memorandum of Understanding (MoU) between REDDIG and MEVA II States, Territories and International Organization, which would be applied during the first of 5 years of the MEVA II Service Provider contracts with the network Members, with the purpose of establishing the different levels of the “Integrated American Network” organization, resulting from the MEVA II / REDDIG integration, as well as the involved responsibilities, maintaining the actual MEVA II and REDDIG service providers.
- b) **Consolidation Stage**: Will consist in the establishment of a Multiregional Organization (OMR), composed by the network’s States, Territories and International Organization, which would hire the operation and outsourcing services of the Telecommunications Integrated Network to one service provider to be agreed.

Applicable arrangements in the Initial Stage

1. The MoU would established that States, Territories and International Organization Members of the MEVA II and REDDIG to be at the highest level of the Integrated Network as partners, equal in voice and vote. In addition, given the number of Members involved, a Directive Council should be elected. In this manner, work would be carried out in line with GREPECAS, receiving support from this Regional group with the consequent achievement of objectives to which both, VSAT MEVA II and REDDIG were created.
2. The services providers would be at a second level of the Integrated Network, being in this case, the MEVA II Service Provider (AGS) and the REDDIG Administrator, through the Regional project RLA/03/901. The Directive Council would have the option, among other mechanisms to request the ICAO Technical Cooperation Bureau to supervise both providers for the compliance of agreements or other mechanism.
3. At the initial stage, both MEVA II and REDDIG Managements will continue with its respective Service Provider, i.e, REDDIG would keep with RLA/03/901 project and MEVA II with AGS during the complete initial stage. Under this regulatory framework, the Meeting also proposed that a joint agreement should be established between AGS and the REDDIG Administrator under ICAO’s coordination, as regards to the network control, either through the applications of one of the following alternatives:
 - a) One alternation, for a determined period of time, between the main NCC and the alternate NCC.
 - b) The AGS main NCC and the REDDIG alternate NCC.
 - c) The REDDIG main NCC and the AGS alternate NCC.

4. The benefits of both networks should at least maintain themselves or be better, and the costs for the provision of services are equal or less to the current ones for the MEVA II and REDDIG partners. In addition, it is important to take into consideration that the availability of the network is kept for it to have possibility to exchange information between the administrations; in the case of REDDIG, this is ensured through the equipment redundancy and a ground backup network. In the case of MEVA II, the Meeting was informed that the availability is ensured by a specialized service provider which capacity, organization and VSAT networks experience is worldwide recognized.
5. If applicable, the alternation referred in section 3 should be complemented through the establishment of a general agreement between AGS and the MEVA II Members, to define responsibilities when the main NCC is REDDIG's. In a similar manner, an addendum to the REDDIG Project Document would be required to define when the main NCC is MEVA II.
6. During the analysis of alternatives a), b) and c) expressed in afore pa. 3.5, resulting from the Meeting's request, AGS stated the following comments:

Alternative a): Means that AGS and REDDIG overtake the network's management main and alternate responsibilities on or for a pre-determined period. On this AGS declared:

1. AGS cannot overtake or give in the MEVA II administrative or operational supervision due to its SLA. The SLA indicated in the MEVA II RFP, as it is contracted between AGS and the Members stipulates penalties or credits in case that a network or a node remains out of service. This means that AGS should maintain the network and/or its operation management, generally called Network Control Centre, which consists in maintaining the Sun Linkway work stations (main and alternate), the MRT, the AMRT and the NMS to access these systems and the remote nodes ensuring that the general availability is kept.
2. The Network Control Centre or the Network Management Centre (NCC/NMC) for AGS consist also in solving the personnel management and the problems or service interruptions reports. The timely solution by the personnel also affects the SLA.

Alternative b): Means the Network Control Centre or the Network Management Centre (NCC/NMC) main in AGS and the REDDIG alternate in NCC. In this respect AGS declared:

1. From a supportive point of view this is possible. This means that REDDIG could be the alternate NCC/NMC and assist the REDDIG nodes problems and only in emergency situations take control of the network operations.
2. For AGS the Network Control Centre or the Network Management Centre (NCC/NMC) consist in personnel management and to solve the failure reports or "service outage". The timely solution of failures from the personnel also impacts the SLA. The REDDIG Members could have more knowledge and control on the configuration and operation of its nodes, since they own them and AGS will not be responsible of the availability of those equipments.

Alternative c): Means that the main NCC in REDDIG and the alternate in AGS. In this respect AGS declared:

1. This is not an option for the same reason discussed in Alternative a), paragraphs 1 and 2.
7. Also, the Meeting took note of the information presented by the United States, which overviews the FAA security requirements requested the MEVA II Service Provider to fulfill. Additionally, the Meeting noted that if the REDDIG Administration assumes certain responsibilities in respect to the MEVA II network, would also have to comply with the FAA's requirements for this network.

Consolidation Stage applicable arrangements

1. Once finalized the MEVA II first contract with AGS fixed for a 5 year period is finalized, it would pass to the Consolidation Stage consisting in the creation of a Multiregional Organization (OMR), to hire the telecommunications integrated network operation services and "outsourcing" to only one services provider entity. Likewise, the OMR would coordinate the planning and development of aeronautical communication services in the regions, as well as the respective implementations and the telecommunication integrated network as the platform.
2. Also, during this consolidation stage, the OMR would supervise the compliance of the "Service Level Agreement" (SLA) with the services provider entity.

Agenda Item 4: Other issues

4.1 The Meeting agreed that the next MEVA II/REDDIG coordination meeting should be held once implemented the interconnection of both networks, and that the same would be previous to the next meeting of the Technical Management Group of the MEVA Network (MEVA TMG). In the same way, it was considered convenient to include within the agenda of the next Coordination Meeting issues of common interest for the networks, for example, considerations for the change of satellite D IS-1R to IS-14 planned by INTELSAT. It is expected, therefore, that this meeting be held in the first quarter of year 2009 in the ICAO Mexico Office.