INTERNATIONAL CIVIL AVIATION ORGANIZATION

RLA/03/901

SIXTEENTH MEETING OF THE COORDINATION COMMITTEE (RCC/16)

FINAL REPORT

(Lima, Peru, 18 to 20 March 2013)

INDEX

HISTORY OF THE MEETING

ii-1.   **PLACE AND DURATION OF THE MEETING**

The Sixteenth Meeting of the Coordination Committee of Project RLA/03/901 -- *REDDIG Management System and Satellite Segment Administration*, was carried out in the ICAO South American Regional Office, in Lima, Peru, from 18 to 20 March 2013.

ii-2.   **OPENING**

Mr. Oscar Quesada, Deputy Regional Director of the ICAO South American Regional Office, welcomed the participants, pointing out the importance of the topics to be dealt with and wishing success in the deliberations. Thereafter, he inaugurated the meeting.

ii-3.   **WORKING LANGUAGES**

The meeting working languages for the discussions and documentation were Spanish and English.

ii-4.   **PARTICIPANTS AND ORGANIZATION**

The meeting counted with the assistance of 9 member States (Argentina, Bolivia, Brazil, Chile, Colombia, Paraguay, Peru, Trinidad & Tobago, and Uruguay), making a total of 17 participants, including ICAO officers. The list of participants is being presented in page iii-1.

Mr. Onofrio Smarrelli, Communications, Navigation and Surveillance (CNS) Regional Officer, acted as Secretary, assisted by Ms. Verónica Chávez, Technical Cooperation Officer.

ii-5.   **LIST OF CONCLUSIONS**

No.	Title	Page
RCC/16-1	Support of the civil aviation authorities to the focal points nominated for the implementation of REDDIG II	4-2
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RCC/16
LISTA DE PARTICIPANTES / LIST OF PARTICIPANTS

ARGENTINA
1.   Obdulio Omar Gouarnalusse
2.   Gustavo Adolfo Chiri
3.   Cristian Javier Vittor

BOLIVIA
4.   Iver M. Vargas Ponce de León

BRASIL
5.   Athayde L. Vieira Frauche
6.   Alessandro S.Mamede Alves

CHILE
7.   Christian Vergara Leyton

COLOMBIA
8.   Gabriel E. Guzmán Pachon

PARAGUAY
9.   Aldo O. Pereira Alcaraz
10.   Víctor J. Morán Maldonado

PERU
11.   Luis Silva Gárate
12.   José Luis Paredes Dávila

TRINIDAD & TABAGO
13.   Shiraz Gopaul

URUGUAY
14.   Marcos Vignolo
15.   Miguel Carbó

OACI / ICAO
16.   Onofrio Smarrelli
17.   Verónica Chávez

Agenda Item 1:   **Approval of the agenda and of the meeting schedule**

1.1   Under this Agenda item, the Meeting reviewed and approved the agenda and meeting schedule included as **Appendices A and B** to this part of the report.

APPENDIX A

AGENDA

Agenda Item 1:   Approval of the agenda and of the meeting schedule

Agenda Item 2:   Review of the report of the Fifteenth Meeting of the Coordination Committee

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

Agenda Item 4:   Follow-up to REDDIG II implementation activities

Agenda Item 5:   Work plan for year 2013

Agenda Item 6:   Financial situation of the project and approval of the budget

Agenda Item 7:   Annual project evaluation

Agenda Item 8:   Other matters

EXPLANATORY NOTES

Agenda Item 1:   **Approval of the agenda and of the meeting schedule**

The Coordination Committee will consider and approve the provisional agenda and meeting schedule proposed by the Secretariat for its fifteenth meeting.

Agenda Item 2:   **Review of the report of the Fifteenth Meeting of the Coordination Committee**

The Committee will review, for approval, the report of its fifteenth meeting held in Lima from 15 to 17 August 2012. Likewise, the Committee will analyze the status of implementation of conclusions formulated during said meeting, as well as of conclusions in force from previous meetings.

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

The Committee will analyze the activities carried out since its last meeting regarding:

a) The 2012 training programme;
b) Implementation of new services; and
c) REDDIG logistics aspects.

Agenda Item 4:   **Follow-up to REDDIG II implementation activities**

Under this Item, the Meeting will take note of the current situation with regard to the contract between ICAO and the REDDIG II bid winner, the work programme for the review of the installation documents, the training programme, the REDDIG implementation phases and the acceptance protocols.

Agenda Item 5:   **Work plan for year 2013**

The Committee will analyze the work programme for year 2013 proposed by the Secretariat. Among the activities scheduled, there are the follow-up to the implementation of new services (AMHS interconnection, interchange of radar data and flight plans), the REDDIG training and maintenance programme.

Agenda Item 6:   **Financial situation of the project and approval of the budget**

The Committee will consider the status of the cost-sharing contributions to the project, a summary of the obligations assumed during 2012, as well as the project budget for 2013, for approval.

Agenda Item 7:   **Annual project evaluation**

The Committee will take note of project situation at the end of the year, including the management and outputs indicators, as well as the monitoring and control of the project with regard to the approved work plan for 2012, shown in the corresponding forms, concluding with the review of the survey conducted among participant States concerning their annual project evaluation.

Agenda Item 8:   **Other matters**

Under this Agenda Item, the Committee could analyze any other related issue.

APPENDIX B

MEETING SCHEDULE

Time	Monday	Tuesday	Time	Wednesday
08:15-09:00	08:15 Registration of participants 08:45 Opening ceremony		10:00-12:00	Review of the report
09:00–10:45	**Agenda Item 1**: Adoption of the agenda and meeting schedule **Agenda Item 2**: Review of the report of the Fifteenth Meeting of the Coordination Committee **Agenda Item 3**: Report of the activities carried out to date since the last meeting of the Coordination Committee	**Agenda Item 6**: Financial situation of the project and approval of the budget for year 2013		
10:45-11:00	*Coffee break*	*Coffee break*	12:00-12:15	Closing ceremony
11:00-12:45	**Agenda Item 3 –** Continuation **Agenda Item 4:** Follow-up to REDDIG II implementation activities	**Agenda Item 7**: Annual project evaluation		
12:45-13:30	*Lunch*	*Lunch*		
13:30-15:00	**Agenda Item 5**: Work plan for year 2013 **Agenda Item 8**: Other matters			

Agenda Item 2:   Review of the report of the Fifteenth Meeting of the Coordination Committee

2.1   Under this Agenda Item, the Meeting examined and approved the report of the Fifteenth meeting of the REDDIG Coordination Committee (RCC/15) held in Lima, Peru, from 15 to 17 August 2012, attended by representatives of 9 member States (Argentina, Bolivia, Brazil, Chile, Colombia, Peru, Trinidad & Tobago, Uruguay and Venezuela) and one international organization (COCESNA), totalizing 25 participants, including the ICAO officials.

2.2   The RCC/15 reviewed the results of the previous meeting (RCC/14), held in Lima, Peru, from 16-18 March 2011, the results of activities performed in 2011, the 2012 work plan, the bidding process for the implementation of REDDIG II, the evaluation of offers, the financial situation of the Project, by examining and approving Version Q of the budget, the 2011 Project annual report, as well as a working paper on REDDIG presented at the ICAO Twelfth Air Navigation Conference (AN-Conf/12) (Montreal, Canada, 19-30 November 2012).

2.3   The RCC/15 meeting formulated the following conclusions:

RCC 15/1	*Operational traffic at the MEVA II/REDDIG interconnection AFTN circuits*	
RCC 15/2	*Approval of the substantive project revision document "Q" to Project RLA/03/901*	
RCC 15/3	*Approval of the REDDIG II bidding process evaluation results*	
RCC 15/4	*Payment of cost sharing contributions to Project RLA/03/901*	
RCC15/5	*Approval of the Budget of Project RLA/03/901*	
RCC 15/6	*Extension of deadline for the completion of the survey on management indicators and results*	

2.4   RCC/16 meeting examined the conclusions pending completion from the previous REDDIG Coordination Committee meetings, whose results are shown in the **Appendix** to this part of the report.

2.5   The Meeting noted that the working paper on REDDIG dealing with the efforts of the South American Region and ICAO to establish a multinational technical cooperation project that enabled the installation of REDDIG, as well as the next implementation of REDDIG II, was presented at AN-Conf/12 meeting by Brazil, on behalf of all REDDIG member States. Same was well accepted at the Conference and contributed in the formulation of Recommendation 1/6 – *Data communications issues*. This recommendation indicates that ICAO would examine the operation, management and monitoring of regional digital networks under technical cooperation projects, with the aim that they can be adapted at other ICAO Regions.

APPENDIX

**CONCLUSIONS ADOPTED BY THE REDDIG COORDINATION MEETINGS THAT REMAIN VALID AND
THEIR STATUS OF IMPLEMENTATION**

No.	Title	Content	Status	Remarks
RCC 8/8	REDDIG Administration	That, until such time that the institutional aspects related to the management of multinational systems for the provision of air navigation services are more clearly defined, the States agree that, for the next two years, starting 15 October 2005, the REDDIG will continue to be managed through the ICAO technical cooperation mechanism, as an extension of Regional Project RLA/03/901.	Valid	Whereas the establishment of the South American Air Navigation and Safety Organization, multinational system with ability to manage the REDDIG continues undefined, RCC/15 meeting (Lima, Peru, 15-17 August 2012) approved the RLA/03/901 project document substantive revision, extending the management of REDDIG until 2018.
RCC 14/1	Implementation of new ATS speech circuits in REDDIG	That, with the aim of increasing the speech communications availability currently carried out through VHF –FM links at the ATS units located in the Brazilian borders: a) The aeronautical administrations of Argentina, Bolivia, Brazil, Colombia and Paraguay prepare an action plan for the implementation of local links between the border ATS unit and the corresponding REDDIG node, to transport the ATS speech circuits indicated under this Agenda Item, paragraph 3.1, and that it be sent to the ICAO Regional Office by 30 June 2011; and b) The REDDIG administration proceeds with the configuration of REDDIG for the inclusion of these circuits.	Valid	The Tabatinga (Brazil) –Leticia (Colombia) circuit has been implemented and the installation of the Foz do Iguaçu (Brazil) - Guaraní (Paraguay) has started. Regarding the Foz do Iguaçu (Brazil) - Cataratas (Argentina) y Uruguaiana (Brazil) - Paso de los Libres (Argentina) circuits, information has been received that the Cataratas link to the Ezeiza REDDIG node would be completed by mid-April 2013, and the Paso de los Libres node to the REDDIG Ezeiza node, for the last quarter of 2013. The Meeting urged Bolivia to complete soonest the Puerto Suarez link to the La Paz REDDIG node, since operational coordination problems were presenting themselves between Corumbá - Puerto Suarez.

No.	Title	Content	Status	Remarks
RCC 15/1	Operational traffic at the MEVA II/REDDIG interconnection AFTN circuits	That, a) the aeronautical administrations of Colombia and Venezuela coordinate with the respective MEVA II member States for the completion, before 30 September 2012, of the AFTN circuit operation through the MEVA II/REDDIG interconnection circuits indicated in paragraph 3.3 of this Agenda Item, since said circuits are currently being paid to the MEVA II service provider; and b) Brazil continue coordinations with United States with the aim of completing the trials and starting the operation of the AFTN circuit, by 30 October 2012.	Valid	The AFTN circuits between Maiquetia (Venezuela – Atlanta (United States) and Maiquetia – Curacao(Netherlands Antilles) have been implemented. Successful AFTN message exchanges have been conducted between Manaos (Brazil) and Atlantic City (United States), and it is expected that this circuit become operational by the end of April 2013. Still pending is the operational services implementation between Bogota (Colombia) – Panama (Panama). Administrations involved were urged to complete the implementation of the indicated services, since they were already paying for them.
RCC 15/2	Approval of the substantive project revision document "Q" to Project RLA/03/901	That, in order to update the RLA/03/901 project document REDDIG Management System and Satellite Segment Administration, so as to include the additional activities executed and a new immediate objective related to the procurement, installation, commissioning and maintenance of the REDDIG II digital network, the Fifteenth Meeting of the Project Coordination Committee approves the proposal accepts of the substantive project revision document and budget "Q" proposed by the Secretariat, and requests its approval by ICAO and further transmission to member States if possible not later than 24 August 2012 for their signature. The revised document duly signed by all parties should be available to all concerned by 28 September 2012.	Valid	Brazil, Chile, Colombia, Peru and Venezuela have submitted the signed document. RCC/16 urged REDDIG member States who had not yet done so, to send the revised document duly signed as soon as possible.

No.	Title	Content	Status	Remarks
RCC 15/4	Payment of cost sharing contributions to Project RLA/03/901	That, a) REDDIG member States that have not yet deposited their cost-sharing contributions to RLA/03/901 Project for the years 2011 and 2012, are encouraged to do so as soon as possible to allow the normal development of project activities, and b) Likewise, States that have not yet responded to letters requesting to deposit the funds required to finance the REDDIG II, are urged to do so as soon as possible during the second half of 2012, so that ICAO can sign the contract with the company winning the tender.	Valid	The 2011 quota has been paid by all member States. As regards the 2012 quota, only pending contribution payments are Argentina and Suriname. The following States have yet to cancel the corresponding quota: Argentina, Bolivia, Chile, Paraguay, Suriname and Venezuela.

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

3.1   Under this Agenda Item, the Meeting analyzed the activities carried out in 2012 which had been approved by RCC/15. The activities carried out, over which the Meeting was informed upon and that are enumerated below, were:

>   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.

Follow-up to MEVA II/REDDIG interconnection activities

3.2   The Meeting recalled that the 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.

3.3   In addition, it noted that 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, and the AFTN circuit between Maiquetia – Curacao at the end of 2012. In addition, in mid-March successful AFTN operational tests had been conducted between Manaos (Brazil) – Atlantic City (United States), with the participation of the REDDIG Administrator, estimating that the operational AFTN service between Manaos – Atlanta would become operational by the end of April 2013, only pending the AFTN operational services of Bogota – Panama.

3.4   The Meeting was informed that 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 circuits services is being carried out in accordance to indications in Contract No. 22500187.

3.5   The Meeting, since no progress had been achieved in the implementation of Conclusion RCC 15/1 – *Operational traffic at the MEVA II/REDDIG interconnection AFTN circuits*, urged the administration of Colombia to turn the AFTN operational in the MEVA II/REDDIG interconnection.

3.6   The Meeting was informed that ICAO had renewed the contract with the MEVA II/REDDIG services provider for an additional year, from 15 March 2013 to 15 March 2014. The services cost remain the same since, 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.

3.7   The Meeting deemed convenient to hold a teleconference in April among Colombia, Panamá and REDDIG Administration, with the aim of coordinating the activities necessary to complete the Colombia – Panama AFTN circuit in the MEVA II/REDDIG interconnection.

Implementation of new ATS speech circuits

3.8   The Meeting analysed the progress made in the implementation of the ATS speech circuits scheduled to be implemented in REDDIG, with the aim of increasing speech communications availability among the ATS units located in the Brazilian border zones that currently carry out VHF – MF links, which have very low availability.

3.9   Of all circuits scheduled, the Meeting was indicated that to date only the Tabatinga-Leticia circuit has been implemented, and that coordinations had started between the aeronautical administrations of Argentina and Paraguay with their respective national communications services providers, to establish links between Guarani and the Asuncion REDDIG node, and Cataratas with the Ezeiza REDDIG node. These links are scheduled to be completed by the end of April 2013.

3.10   With regard to the local link between Pasos de los Libres and the Ezeiza REDDIG node, information was provided to the Meeting that same would be completed by the last quarter of 2013.

3.11   Since there had been no progress in the implementation of local links in Bolivia, the Meeting urged the aeronautical administration of Bolivia (AASANA) to complete the local link between Puerto Suarez and the La Paz REDDIG node as soon as possible, since operational coordination problems were presenting themselves between the Corumbá (Brazil) control tower and Puerto Suarez. Also, the Meeting requested Bolivia to complete the local link between Guayamirin and the La Paz REDDIG node, to complete the REDDIG circuit between Guajaramirin (Brazil) and Guayamirin (Bolivia).

Training programme for 2012

3.12   The Meeting noted that, 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.   The Course counted with the participation of 34 specialists from the aeronautical communications services operational and technical areas from 11 REDDIG member States, five of them through Project fellowships.

3.13   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.

3.14   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.

3.15   The Meeting was informed that the Course had received high acceptance from the participants, and greatly contributed in the AMHS interconnection between Ecuador and Peru.

Alternation of the operation of the NCC and the management centre

3.16   The Meeting noted that 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

3.17   The Meeting was informed on the implementation of the following services in 2012:

   a)   AMHS service between Argentina and Paraguay: March 2012;
   b)   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;
   c)   PVC for AMHS service between Peru and Venezuela. In September 2012, the
           PVC circuit between the Lima (SPIM) and Maiquetia (SVMI) stations was tested
           from end-to-end, at network level between the respective routers;
   d)   PVC for radar data exchange service between Brazil and Venezuela: In
           Spetember 2012, verification was carried out to the PVC circuit between the
           Manaos (SBMN) and Maiquetia (SVMI) stations, with end-to-end tests at
           network level between the respective routers; and
   e)   PVC for radar data exchange service between Argentina and Chile.

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

3.18   Regarding this activity, the Meeting was informed that, since the last REDDIG
coordination committee meetings, the only activity carried out had been the negotiation process. The
negotiation process started with a meeting at the ICAO Technical Cooperation Bureau in Montreal,
Canada, from 27 to 31 August 2012, with representatives from the company selected, from ICAO and, as
observers, representatives from Brazil and Trinidad & Tobago.

3.19   The Meeting took note that the objectives proposed were reached during the negotiation
process, without exceeding the REDDIGI II cost estimate approved at the Twelfth Meeting of Civil
Aviation Authorities of the SAM Region (RAAC/12) (Lima, 3-6 October 2011). Further information is
presented under Agenda Item 4.

REDDIG logistics operations and spare parts management

3.20   The Meeting was informed on the equipment failures, the number of major attentions to
network nodes and their availability. Information in this regard is presented in **Appendices A, B and C**
to this Agenda Item.

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

REDDIG 2012
Attentions to Nodes / Atenciones a los Nodos = 247
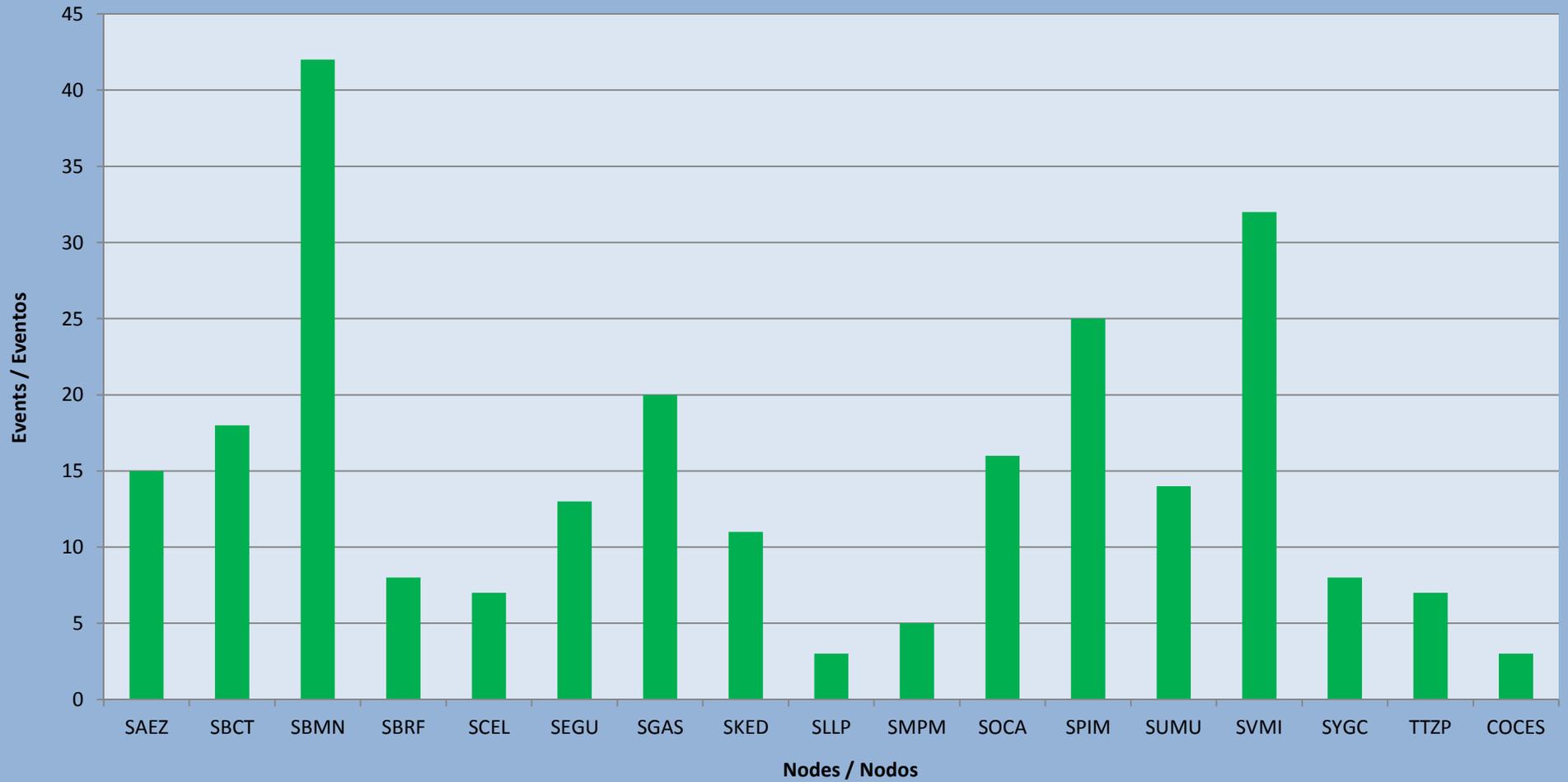
REDDIG 2012
Distribution of attentinos / Distribución de atenciones
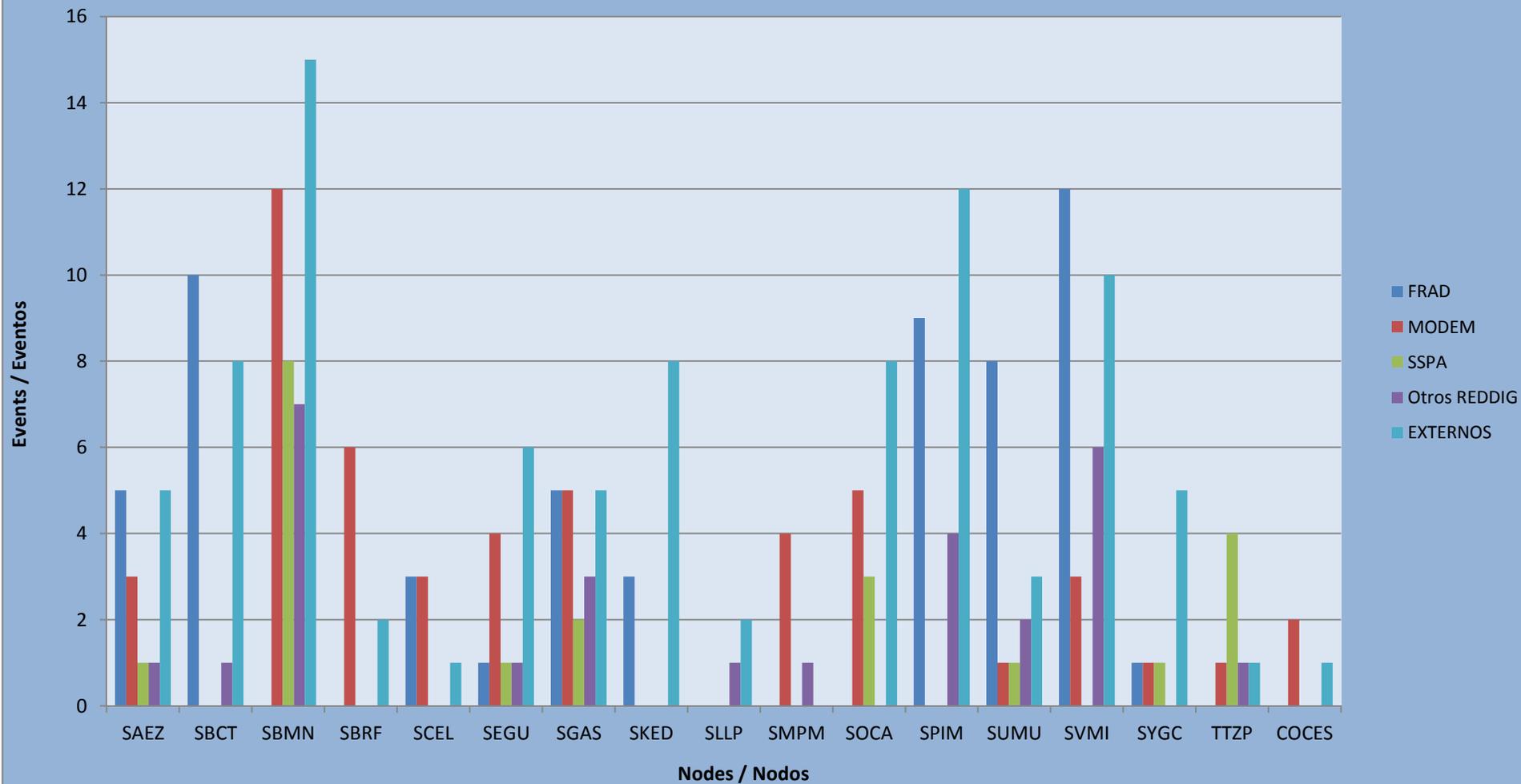
REDDIG 2012
Distribution of attention by equipment category/
Distribución de atención por categoría de equipo

FRAD
44
18%

MODEM
47
19%

SSPA
36
14%

Otros REDDIG
31
12%

EXTERNOS
93
37%

1
2
3
4
5
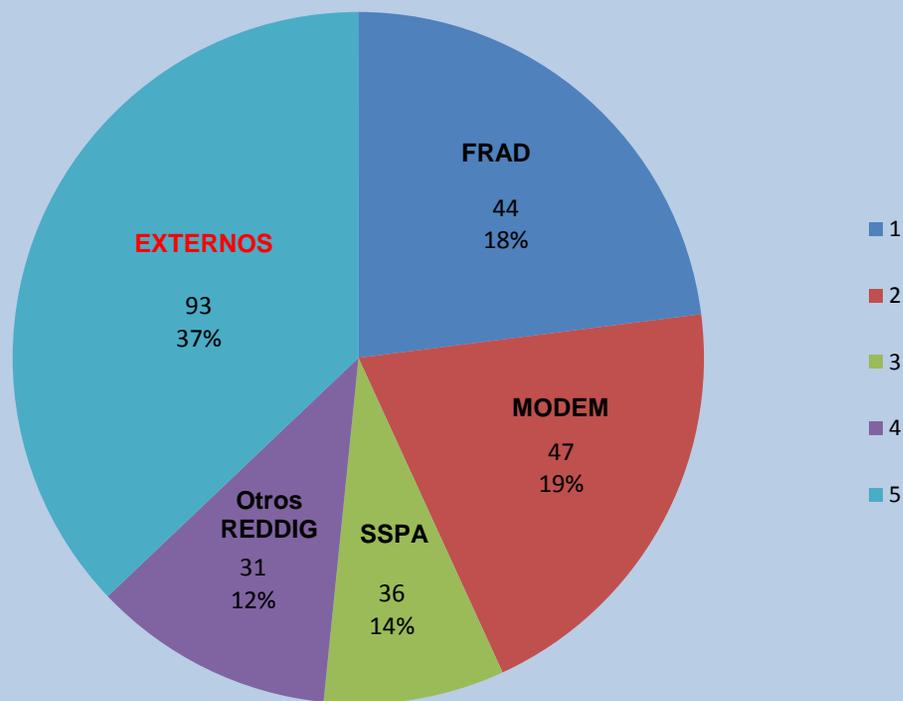
REDDIG Network Availability/
REDDIG Disponibilidad de Red

Year	Value
2004	99.9952%
2005	99.9947%
2006	99.9943%
2007	99.9905%
2008	99.9951%
2009	99.9910%
2010	99.9980%
2011	99.9939%
2012	99.9951%
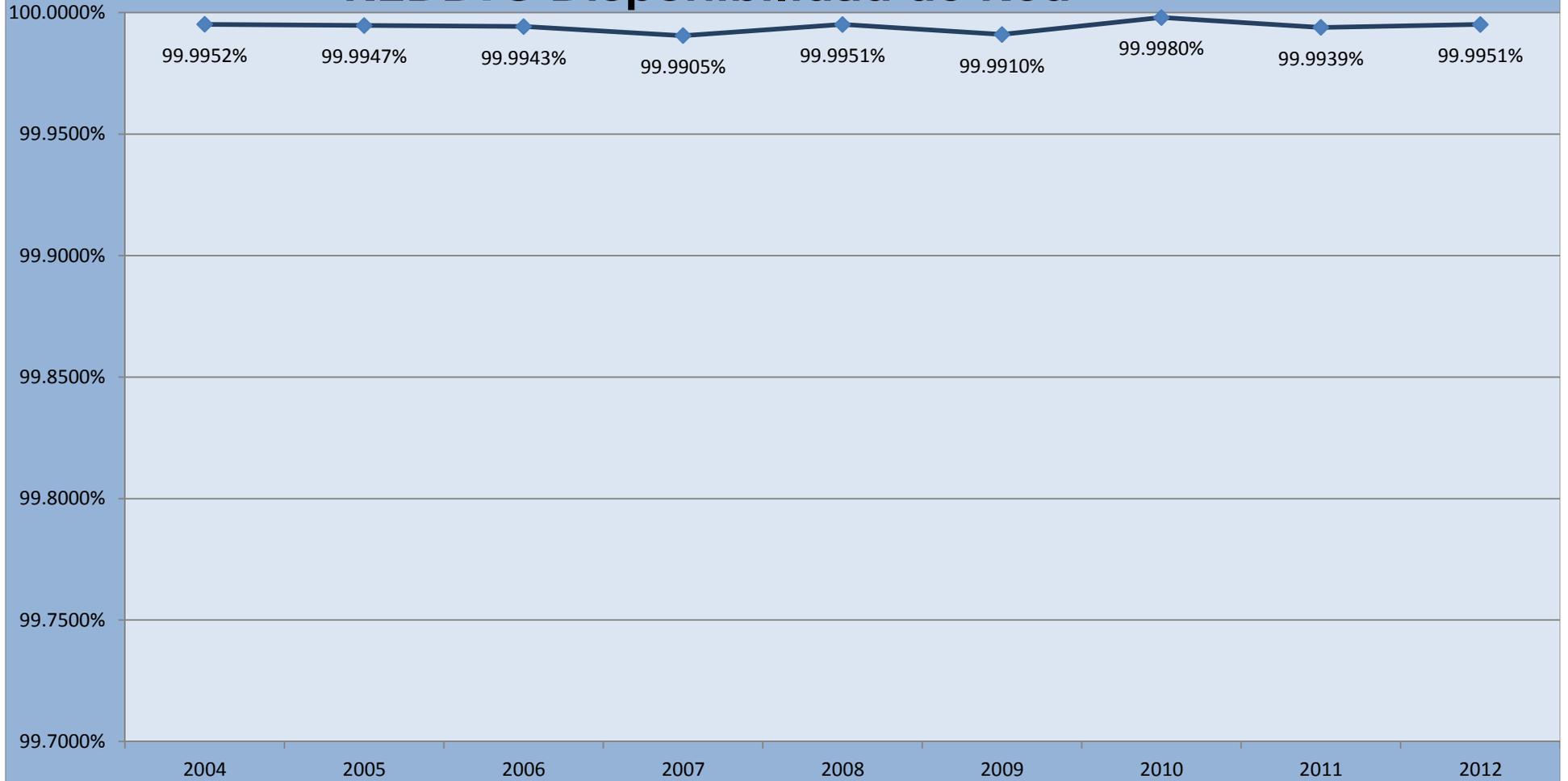
Agenda Item 4:   Follow-up to REDDIG II implementation activities

Bidding process

4.1   The Meeting was informed that, as a result of the negotiation process, success was obtained in achieving that the bid winner company include in its offer the following aspects taken under consideration during the REDDIG II offer evaluation phase, and RCC/15 meeting:

    a)   Replacement of a satellite MODEM at the Manaos and Ezeiza nodes;
    b)   Transfer of Asuncion and Santiago nodes antennae (optional in REDDIG II contract);
    c)   Confirmation of technical aspects regarding amplifiers and the network management system;
    d)   Presentation of details regarding the training manual; and
    e)   Purchasing of IP telephones to support speech services requirements for the regional management of flow control.

4.2   With regard to the antennae transfers at the Asuncion and Santiago nodes (optional activity in the REDDIG II implementation contract), the delegate of Chile informed that by the end of the first semester of 2013, they have transferred the whole REDDIG node, from Cerro Colorado to the area were the Santiago control centre is located. In this manner, the antenna transfer indicated in the REDDIG II Project would no longer be necessary.

4.3   The delegate from Paraguay indicated that they had analyzed the offer presented by the bid winner regarding the REDDIG node transfer from Silvio Pettirossi international Airport in Asuncion to the Asuncion control centre, being in agreement with the amount presented by the bidding process winner and that they would be making the deposit of this amount to REDDIG Project (RLA/03/901).

4.4   The delegate of Colombia informed the Meeting that they had started with civil Works for the construction of the new control center and control tower in Bogota, and that by the end of July 2013 they would be starting with a bidding process for the purchasing of equipment for the new Bogota control centre and control tower. An estimate was given that the installation of this equipment might be completed by July 2014, requesting the possibility that the new REDDIG equipment be installed in the new facilities. In this respect, the Secretariat informed that by the indicated date and in accordance with REDDIG II implementation chronogramme, REDDIG II would already be installed; therefore, the Secretariat would request the winning company to present a quotation for the transfer of the REDDIG II equipment from the current location to the area where the new control centre will be located.

4.5   During the negotiation period, the bid winner's Service Level Agreement (SLA) document on ground communications services was also examined. In this regard, it was considered that the SLA's validity period would cover the first six months of provision of the services taken under consideration in the REDDIG II technical specifications. In the event that the REDDIG member States decide to extend the ground service provision contract, they will make a new revision to the SLA. Copy of the revised SLA is shown in **Appendix A** to this Agenda Item.

Contract between ICAO and the bidding process winner (INEO Engineering and Level 3 Peru S.A. Consortium) 22501200

4.6   The Meeting was provided information regarding the contract between ICAO and the bid winner, to be signed by the end of March 2013. The contract will be carried out in two phases: In Phase 1, to be implemented during the second quarter of 2013, the bid winner will present the REDDIG II design documents, the installation procedures, the training manuals, the factory acceptance documents, the on-site documents, the network documents, etc., which would be examined by the REDDIG member States. Phase 2 includes REDDIG II installation and will start once all REDDIG member States have cancelled their corresponding REDDIG II quotas, scheduled for no later than 31 March 2013.

Focal points and their activities

4.7   The Meeting examined and updated the list of focal points nominated by REDDDIG member States, whose main functions will be to participate in the installation of the corresponding REDDIG II node, the node provisional and final acceptance, obtain the frequencies license, and free the equipment from customs. The revised list of focal points is shown as **Appendix B** to this Agenda Item. In this respect, the Meeting formulated the following Conclusions:

Conclusion RCC/16-1 -   **Support of the civil aviation authorities to the focal points nominated for the implementation of REDDIG II**

That the REDDIG member States Civil Aviation Authorities provide the focal point(s) nominated for the implementation of REDDIG II, all necessary facilities for the conduct of all activities required for their functions. .

Conclusion RCC/16-2 – Functions of the REDDIG II focal points

That the REDDIG member States civil aviation authorities take into account the following functions required from the focal point(s) nominated by their administration:

a) Participate in follow-up meetings regarding REDDIG II implementation;
b) Assist to REDDIG II to courses scheduled for REDDIG II;
c) Review and approve the SDD and other documents provided by the bid winning company;
d) Obtain frequencies licenses from the entities in charge of the radio electrical frequency spectrum administration;
e) Arrange for the clearance of equipment from customs;
f) Follow-up on the activities regarding REDDIG II installations; and
g) Participate in provisional and final acceptance tests and in the signature of the respective minutes.

4.8   The Meeting took note of the tentative chronogramme of activities for the implementation of REDDIGG II, shown in **Appendix C** to this Agenda Item.

Level3

IPVPN Service Terms and Service Level Agreement
LATIN AMERICA
October 2011

APPENDIX A / APENDICE A

General comment:

The only service that we are considering according to the technical specifications is IPVPN services. We do not have DIA services. For this reason, we consider the non inclusion of this type of service in the SLA.

Meeting 20 Feb.13: Level 3: OK

IPVPN SPECIFIC TERMS AND CONDITIONS AND SERVICE LEVEL AGREEMENT

Level 3 IPVPN. This ais the Service Terms and Service Level Agreements for Level 3's IPVPN Service ("The Service") which apply to IPVPN Service provided by Level 3("Service Terms"), that make part of the contract executed between ICAO – INEO and Level 3 ("Contract"). Initial capitalized terms not defined in these terms and conditions have the meanings given to them in the Contract.All references to the Client herein will be understood to be made in reference to ICAO.

Meeting 20 Feb.13: Level 3: OK to revise as above.

1. Description of Services

1.1 **Service Description:**Level 3 Converged IP Services provide end-to-end voice, data and multimedia/collaboration applications that are managed and delivered on Level 3's MPLS-based IP Network at designated speeds, subject to availability at individual Level 3 access points, enabling the customer to transport voice, data and multimedia/collaboration applications among two or more customer designated locations ("Sites"),.

Meeting 20 Feb.13: Level 3: OK to delete "or if selected, to and from the Internet".

1.2 Customer shall execute Order Form(s) for the Service which will designate the following elements: (i) Converged Connection type (IPVPN, (ii) Service Application, (iii) Service speed, (iv) Point(s) of Presence ("POPs") at which Customer will access the Level 3 IP Network, (v) local access circuit requirements (if any), (vi) pricing, (vii) length of Initial Term for the Service(s), (viii) Class of Service ("CoS") levels (Basic, Enhanced or Premium) applying at each IP VPN port (if applicable), and (ix) optional services selected by Customer, if any (including Internet Access).

Meeting 20 Feb.13: Level 3: OKto delete "or DIA"

2. Converged Connection Type:

Meeting 20 Feb.13: Level 3: OK to delete above Article

2.1 **IP VPN Service:**Level 3 IP VPN Service provides data transportation among two or more customer sites, through Level 3 IP VPN Network at designated speeds, and at the Class of Service ("CoS") chosen by Customer. The following three CoS levels are available at each IP VPN Converged Connection Type.

- Basic (standard or bronze)
- Enhanced (Preferred or silver)
- Premium (real time or gold)

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2.1.2   **Billing Options**: The IP VPN Service includes the following billing components:

- Monthly Recurring Charge ("MRC Charge"): a monthly recurrent charge applied for a specified bandwidth level and CoS configuration for each Site.
- **Meeting 20 Feb.13: Level 3: OK to delete "NRC"**
- In addition to the above billing components, per event charges apply for logical and/or physical service change requests, including (but not limited to) changes in routing protocols, encapsulation, bandwidth, rate limits or CoS level. Change Order Charges are set out in the Order Form for the Service or agreed with Customer at the time the charge order request is received from Customer.

Meeting 20 Feb.13: Level 3: OK to delete Article 2.2

3.   Service Level Agreement (SLA)

3.1 **Service Delivery Guarantee Date applied to IPVPN (the below Article 3.1 does not apply and is for information purposes only. Level 3 will coordinate directly with INEO to respect the implementation schedule of Contract 22501200)**

Meeting 20 Feb.13: Level 3: OK

3.1.1   If for reasons attributable to Level 3, Service was unavailable for Customer use at the "Ready for Service Date" (RFSD) agreed between Level 3 and the Customer; the Customer shall be entitled to claim a credit on the Non Recurring Charge for installation on the affected site.

3.1.2   **Delivery Service Delay Credits**

Number of delayed days further to the RFSD	RFSD Credits [Percentage of the NRC for installation on the affected site]
1 to 10	10%
11 to 20	30%
21 to 30	50%
31 to 45	70%
Above 46	100%

3.1.3   Exclusions: The Customer shall not be entitled to any credit based on nonfulfillment of Delivery Date under the following circumstances:

i. If the Customer has hired local accesses directly from third parties, or
ii. If the pre-scheduled RFSD was changed further to the request order; or was delayed for reasons to which Level 3 is alien.

3.1.4   Expected Delivery Time is of Sixty (60) days for all Customer Sites at On-Net locations (as defined in Section 6), effective as from acceptance by Level 3 of a Customer valid Service Order.

3.1.5   Expected Delivery Time is of Ninety (90) days for all Customer Sites at Off-Net locations or connected to a Virtual PoP ("VPOP") (as defined in Section 6), effective as from acceptance by Level 3 of a Customer valid Service Order.

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3.2 <u>**Service Availability for IPVPN**</u> **Meeting 20 Feb.13: Level 3: OK to delete "and DIA"**

3.2.1 **Expected Service Availability**

- Service availability as well as credits specified below shall apply only to those On-Net Customer Sites (as defined in Section 6) with CPE's (Customer Premise Equipment) managed by Level 3.
- Level 3 backbone POP to POP availability: Level 3 target backbone POP to POP availability is **99.99%.**
- Level 3 POP to VPOP availability: Level 3 target availability for PoP to VPOP is of **99.8%.**
- Last Mile links availability: Customers Last Mile Links Availability comes to **99.7% for On Net sites and to 99.5% for VPOPs.** Thisavailability will be measured by the CPE (Customer Premise Equipment).

Availability for a given Site is calculated as:

$P = (A - B) / A * 100$

Where
P: Service Availability (%)
A: Amount of Minutes in a given month.
B: Amount of minutes when service is unavailable (as defined below)

3.2.2 **Service Unavailability Credits**

If the actual service fails to meet the expected availability as defined in Section 3.2.1, in a given month, for a given site due to problems reasonably attributable to Level 3, the Customer will be entitled to request a credit of the applicable MRC for the affected Site port as provided in Section 5 hereunder.

The Customer may apply for a credit as described in the table below:

Meeting 20 Feb.13: Level 3:

INEO/Level 3 accept the discounts and penalties as described in the technical specifications Section C, Article 5.13., however, the discounts and penalties described therein shall be limited to 100% of the monthly price per site, except for the sites in Guyana, French Guiana, Surinam and Trinidad & Tobago, which are limited to 30% of the monthly price per site.

3.2.3 **Service Unavailability**

- Any Customer Site will be deemed unavailable when data are not received or sent from and to Level 3backbone subject to the conditions specified in Section 5 hereunder.
- If Customer Site fails to accomplish a performance as described in Section 3.4.2, though data are sent and received from or to Level 3 backbone, then this Customer site will be considered to be available.

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- During the unavailability period of any Service, performance credits shall not apply.

3.3 **Service Performance only applicable to IPVPN**

3.3.1 **Round Trip Delay**

- Round Trip Delay (RTD) is measured in milliseconds (ms) among Level 3PoPs and VPOPs (as defined in Section 6). Average RTD for a packet will be measured every five (5) minutes in order to consistently obtain an average monthly performance level.
- Average Round Trip Delay for any given packet, measured among Level 3PoPs and VPOPs are shown below. These magnitudes are measured in "ms" and may differ in **10%.**

	Buenos Aires	Sao Paulo	Miami	Bogotá	Caracas	Quito	Santiago	Lima	Sto Domingo	San Juan	Kingston	Port of Spain
Bs As												
Sao Paulo	46											
Miami	160	150										
Bogota	260	250	100									
Caracas	275	265	115	215								
Quito	295	285	135	235	250							
Santiago	35	81	195	295	310	330						
Lima	80	300	150	250	265	285	45					
Sto Domingo	204	194	55	144	159	179	239	194				
San Juan	199	189	50	139	154	174	234	189	83			
Kingston	213	203	72	153	168	188	248	203	97	92		
Port of Spain	256	246	96	196	211	231	291	246	140	135	149	

3.3.2 **Round Trip Delay Credits:**

Meeting 20 Feb.13: Level 3: INEO/Level 3 accept the discounts and penalties as described in the technical specifications Section C, Article 5.13.8. In the case of degradation such discounts and penalties shall be limited to 50% of the monthly price per site, except for the sites in Guyana, French Guiana, Surinam and Trinidad & Tobago, which are limited to 15% of the monthly price per site.

When average RTD of a packet, measured during a monthly billing period affects an On-Net Customer Site or a site connected to a VPOP (as defined in Section 6), with Level 3 managed CPE's; and RTD exceeds 10% of the target value described in table above (Section 3.3.1), because of grounds attributable to Level 3, the Customer shall be entitled to request credit for the applicable Recurring Monthly Charge Service for the affected Site Port based on the conditions detailed in Section 5 hereunder.

Customer shall be entitled to credit as specified in the table below:**Average RTD Deviation of a packet as described in Section 3.3.1**	**RTD Credits** **[Percentage on the MRC applied for a given site port]**
0% to +10%	**0%**
+11% to +30%	**5%**
Above 31%	**10%**

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- If average RTD deviation for a given pair of PoP's or VPOPs affects more than one On-Net or VPOP connected Customer Site (as defined in Section 6), with Level 3 managed CPE's, only one credit per Service shall apply. Service credit is calculated on the Customer Site with the highest monthly recurring charge compared with all the Customer Sites affected by the same pair of PoP's or VPOPs. Service credits will be subject to the terms and conditions specified in Section 5 hereunder.

- Exclusions: Failures of Service when applied to RTD because of rerouting derived from backbone outages, shall be excluded for credit calculation purposes. Upon the occurrence of these events, Level 3 shall provide Customer with a report of said events.

3.3.3   **Packets Loss**

- Packet loss target is measured per hour and per connection among Level 3 POPs or VPOPs (as defined in Section 6). Packet loss measurement will be made on an hourly basis to assess monthly average performance level for Packet Loss.
- Average Packet Loss measured for a given pair of Level 3 POPs or VPOPs (as defined in Section 6) is the following.

Class of Service	Average Packet Loss
Premium	< 0.2%
Enhanced	< 0.5%
Basic	< 1%

3.3.4   **Packet Loss Credits**

Meeting 20 Feb.13: Level 3:INEO/Level 3 accept the discounts and penalties as described in the technical specifications Section C, Article 5.13.8. In the case of degradation such discounts and penalties shall be limited to 50% of the monthly price per site, except for the sites in Guyana, French Guiana, Surinam and Trinidad & Tobago, which are limited to 15% of the monthly price per site.

If average packet loss measured for any given month, affects one On-Net or VPOP connected Customer Site (as defined in Section 6), with Level 3 managed CPE, and failure exceeds targets detailed on table of Section 3.3.3 by +10% due to Level 3 attributable grounds, then the Customer will be entitled to request a service credit on the monthly recurring charge for the site port affected according to the table below.

Packet loss target average deviation described in Section 3.3.3	Packet loss Credits (Percentage on the MRC applied for a given site port)
0% to +10%	**0%**
+11% to +30%	**5%**
Above +31%	**10%**

- If average Packet Loss deviation for a given Level 3PoP's or VPOPs (as defined in Section 6) affects more than one On-Net or VPOP connected Customer Site (as defined in Section 6), with Level 3 managed CPE's, only one credit per Service shall apply. Service credit is calculated on the Customer Site with the highest monthly recurring charge compared with all the Customer Sites affected by the same pair of Level 3PoP's or VPOPs. Packet Loss credits will be subject to the terms and conditions specified in Section 5 hereunder

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3.3.5   **Jitter**

- Jitter is measured in milliseconds (ms) per hour and per connection among Level 3 POP's or VPOPs (as defined in Section 6). Average Jitter is measured every 30 minutes to consistently assess a monthly average performance level.
- Target Jitter applies only to the Premium Class of Service.
- Level 3 shall make all reasonably technical efforts to achieve a maximum average Jitter of 15 ms, measured for a given pair of Level 3 POPs or VPOPs (defined in Section 6).

3.3.6   **Jitter Credits**

Meeting 20 Feb.13: Level 3:
INEO/Level 3 accept the discounts and penalties as described in the technical specifications Section C, Article 5.13.8. In the case ofdegradation such discounts and penalties shall be limited to 50% of the monthly price per site, except for the sites in Guyana, French Guiana, Surinam and Trinidad & Tobago, which are limited to 15% of the monthly price per site.

- If the actual monthly average Jitter affecting an On-Net or VPOP-connected Customer Site (defined in Section 6), with Level 3 managed CPEs exceeds the parameters described in Section 3.3.5 by 10% of the target value due to Level 3 attributable grounds, Customer will be entitled to request a credit of the applicable MRC of the affected site as detailed in the table below.

Average Jitter Deviation based on targets described in Section 3.3.5	Jitter Credits (Percentage on the MRC applied for a given site port)
0% to +10%	0%
+11% to +30%	5%
Above +31%	10%

- If average Jitter deviation for a given pair of Level 3PoP's or VPOPs affects more than one On-Net or VPOP connected Customer Site (as defined in Section 6), with Level 3 managed CPE's, only one credit per Service shall apply. Service credit is calculated on the Customer Site with the highest monthly recurring charge per port compared with all the Customer Sites affected by the same pair of Level 3PoP's or VPOPs. Credit for Service shall abide by the terms and conditions specified in Section 5 hereunder.

- Exclusions: Jitter Service failures due to re-routings derived from backbone outages, shall be excluded for credit calculation purposes.

4.   Level 3 Limitation of Liability

Meeting 20 Feb.13: Level 3: OK to delete Article 4.

5.   General Terms applying to SLAsMeeting 20 Feb.13: Level 3:
Article 5 of this SLA compliments the technical specification, Section C, Article 5.13. In case of discrepancies, ICAO's specification shall prevail.

5.1   Level 3 owns a Latin America Regional Operations Center (LROC) to provide monitoring, failures reports and Level 3 Data Service maintenance on a 24x7x365 basis.

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5.2 Level 3 and Customer shall work in tandem to repair any Service flaw, as described below:

- Customer shall report to Level 3 about the existence of any trouble by opening a trouble ticket through LROC.

- Level 3 shall then verify the existence of such a Service failure and shall execute all necessary activities to confirm that failure was the result of an action or omission of its own resources or Level 3 outsourced resources to provide Service.

5.3 Level 3 Mean Time To Restore (MTTR) target is of four (4) hours for Customer Sites located less than 50km away from On-Net and VPOPs sites; an of eight (8) hours for the rest. Level 3 shall make all reasonable technical efforts to trouble-shoot Service troubles reported by Customers within the aforementioned timelines through the LROC (Latin American Regional Operation Center) upon trouble ticket opening. Level 3 will review the reported trouble and provide Customer with a diagnosis, as part of the trouble shooting process.

5.4 Trouble ticket will be closed upon Service restoration and upon acceptance by both Level 3 and Customer.

5.5 MTTR values detailed above shall apply only to On-Net Customer Sites (defined in Section 6).

5.6 This SLA and Service credits cover both Level 3 owned circuits as well as those directly under Level 3 control. Any part of the Service provided to Customer by third parties, and used together with Level 3 for service provision purposes are considered beyond Level 3 service control, and therefore are not covered by the objectives and credits applicable to this Service.

5.7 SLA credits are calculated after deduction of all discounts and other special pricing arrangements, and are not applied to governmental fees, taxes, surcharges and similar additional charges.

5.8 If an incident affects the performance of the Service and results in a period of Service Unavailability, entitling Customer to one or more credits under different SLA parameters, only the single highest credit applying in respect of that incident will be applied.

5.9 In no event will SLA credits in any calendar month exceed 30% of the total MRCs payable by Customer for the applicable Converged Connection Type in that month. In no event will maximum applicable credits in any calendar month for a given Site exceed thirty percent (30%) of the MRCs for that site.

5.10 All approved SLA credits for a given month will be totaled and applied to Customer's next following invoice for the Service, or as promptly thereafter as is practical in the event of a dispute. SLA credits must be requested within 30 calendar days of the end of the month in which entitlement to an SLA credit arose. Should Customer fail to give notice to Level 3 within said period, Level 3 shall be relieved from liability whatsoever.

5.11 SLAs apply to newly installed Services and to Service reconfigurations requested by Customer commencing on the next calendar day following (i) the Service Commencement Date or (ii) completion of the Service reconfiguration, as applicable.

5.12 SLA credits and/or termination rights provided for in these terms and conditions are Customer's exclusive remedies with respect to items covered in these terms and conditions and the sole responsibility of Level 3.

5.13 SLA credits are not payable on the basis of incomplete or inaccurate reporting of compliance with SLA metrics caused by inaccurate or incomplete configuration information provided by Customer.

5.14 Except where specifically provided for in these terms and conditions, no service level guarantees apply to Customer traffic while it is being carried / transmitted on third party networks.

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5.15 No SLA credit shall apply to the failure of the Service to comply with an SLA, or to any period of Network or Service Unavailability, caused, in whole or part, by any of the following:

- a failure of Customer's premises equipment or equipment of a Customer's vendor;
- power failure at the Customer's premises;
- a failure in local access facilities connecting the Customer to Level 3's network which are <u>not</u> provided by Level 3;
- force majeure or act of god events as defined under the Contract, including failures caused by undersea cables cuts that connect the VPOPs;
- any act or omission of Customer or any third party (including but not limited to, Customer's agents, contractors or vendors), including, but not limited to (i) failing to provide Level 3 adequate access to facilities for testing, (ii) failing to provide access to Customer premises as reasonably required by Level 3 (or its agents) to enable Level 3 to comply with its obligations regarding the Service, (iii) failing to take any remedial action in relation to a Service as recommended by Level 3, or otherwise preventing Level 3 from doing so, or (iv) any act or omission which causes Level 3 to be unable to meet any of the SLAs;
- customer's negligence or willful misconduct, which may include Customer's failure to follow agreed-upon procedures;
- Over delivery of traffic to individual IP VPN ports which either exceeds the bandwidth for individual CoS allocations or attempts to exceed the overall bandwidth available for the applicable port;
- Subject to Section 4.1.2 above, any scheduled maintenance periods when Customer has been informed of such maintenance, and emergency maintenance; or
- disconnection or suspension of the Service by Level 3 pursuant to a right to do so under the Contract or these terms and conditions

6. <u>On Net Sites</u>

6.1   To the purposes of this SLA, On Net Locations are those Customer Sites located in the cities described below (Level 3 may modify this list at any time):

Country	City
Argentina	Buenos Aires, Rosario, Córdoba, Mendoza
Brazil	Sao Paulo, Río de Janeiro, Belo Horizonte, Curitiba
USA	Miami
Colombia	Bogotá, Cali, Medellin
Venezuela	Caracas
Ecuador	Quito, Guayaquil
Chile	Santiago
Peru	Lima

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6.2 Level 3 POPs

For the purposes of this SLA we have included Level 3PoPs (Level 3 may modify this list at any time):

Country	City
Argentina	Buenos Aires
Brazil	Sao Paulo
USA	Miami
Colombia	Bogotá
Venezuela	Caracas
Ecuador	Quito
Chile	Santiago
Peru	Lima

6.3 Level 3 VPOPs

The list below contains Level 3 VPOPs for the effects hereunder (Level 3 may modify this list at any time):

Country	City
Dominican Republic	Santo Domingo
Puerto Rico	San Juan
Jamaica	Kingston
Trinidad & Tobago	port of Spain
Bahamas	Nassau
Guatemala	Guatemala
Honduras	Tegucigalpa
El Salvador	San Salvador
Nicaragua	Managua
Costa Rica	San José

Customer's Full Name _____   Contract Execution Date _____

APPENDIX B / APENDICE B

REDDIG II FOCAL POINTS / PUNTOS FOCALES REDDIG II

STATE / ESTADO	Name / Nombre	Cargo	E-Mail / Correo-e	Telephone / Teléfono	Address / Dirección
ARG	Moira Lidia Callegare, ANAC	Jefe Departamento Proyectos – DNSA	mcallegare@anac.gov.ar	(5411) 594-13097	Edificio ANAC Central Paseo Colón 1452, Ciudad Autónoma de Buenos Aires, CP 1063
	Sergio Alberto Vallone, ANAC	Inspector de Navegación Aérea, Depto. Regional Noroeste de Inspecciones de la Dirección Nacional de Inspecciones de Navegación Aérea	svallone@anac.gov.ar	(54351) 475-6414	Dirección Regional Noroeste Camino Pajas Blancas Km. 8.5, CP 5000, Córdoba Capital
	Obdulio Gouarnalusse, DGCTA - FFAA	Jefe Departamento de Proyectos	ogouarna@faa.mil.ar; ogouarnalusse@gmail.com	(5411) 4480-2362; (5411) 5166-2362	Av. Comodoro Pedro Zanni 250, Edif. Cóndor, Sector Amarillo, Of. 472, 1104 Buenos Aires
	Cristian Javier Vittor, DGCTA - FFAA	Asesor de la Dirección C.N.S.	jvittor@anac.gov.ar; javiervittor@gmail.com	(5411) 4480-2362; (5411) 5166-2362; (5411) 44802350	Av. Comodoro Pedro Zanni 250, Edif. Cóndor, Sector Amarillo, Of. 472, 1104 Buenos Aires
BRA	Athayde Licério Frauche, DECEA	Oficial CNS Coordinador REDDIG	dcte4@decea.gov.br, frauche@hotmail.com	(5521) 2101-6584; (5521) 2101-6219	Av. General Justo 160, Rio de Janeiro, Brasil
BOL	Hernando Lara, AASANA	Jefe Unidad Nacional CNS AASANA	nanos_24@hotmail.com	(5912) 212-7959	Aeropuerto Internacional El Alto, Bloque Técnico AASANA
	Remigio Blanco, AASANA	Responsable de Telecomunicaciones AASANA	rblanco@aasana.bo	(5912) 237-0340	Aeropuerto Internacional El Alto, Bloque Técnico AASANA
CHI	Christian Vergara Leyton, DGAC	Supervisor de Mantenimiento Técnico Centro de Control de Santiago	cvergara@dgac.cl	(562) 836-4005; (562) 836-4011; (562) 644-8345	Avenida San Pablo 8411, Comuna de Pudahuel, Santiago, Chile
	Pedro Pastrián Céspedes, DGAC	Supervisor de Mantenimiento Técnico Centro de Control de Santiago	ppastrian@dgac.cl	(562) 836-4005; (562) 836-4011; (562) 644-8345	Avenida San Pablo 8411, Comuna de Pudahuel, Santiago, Chile

STATE / ESTADO	Name / Nombre	Cargo	E-Mail / Correo-e	Telephone / Teléfono	Address / Dirección
COL	Henry Mendoza Sandoval, UAEAC	Director de Telecomunicaciones y Ayuda a la Navegación Aérea	henry.mendoza@aerocivil.gov.co	(571) 296-2224; (57) 317-5170996	Aeropuerto Internacional El Dorado, Av. El Dorado N° 112-09 Edif. C.N.A. (Centro Nacional de Aeronavegación)
	Mario Rosas Gallo, UAEAC	Jefe Grupo Vigilancia Aeronáutica / Técnico Aeronáutico VI 25, Dirección de Telecomunicaciones	mario.rosas@aerocivil.gov.co	(571) 296-2443; (571) 296-2418	Aeropuerto Internacional El Dorado, Av. El Dorado N° 112-09 Edif. C.N.A. (Centro Nacional de Aeronavegación)
ECU	Rául Avellán Oña, DGAC	Dirección de Nodo Aeropuerto "José Joaquín de Olmedo"	ravellan1@yahoo.com raul.avellan@dgac.gob.ec	(593-4) 269-2829	Av. De las Américas, Edif. Servicio para la Navegación Aérea, Guayaquil
FRA	Michel Metzelard, SNA-AG/Centre de Contrôle de Cayenne Félix Eboué	Chef de maintenance	michel.metzelard@aviation-civile.gouv.fr	(594) 594-359317 (Tech room); (594) 594-359321 (Antenna station)	Aviation Civile, Aeroport de Cayenne Félix Eboué, 97351 Matoury, Guyane Francaise
GUY	Mortimer Salisbury, Guyana Civil Aviation Authority	Supervisor - AN & T	mbsalisbury2000@yahoo.com	(592) 261-2569	Control Tower complex, Cheddi Jagan International Airport, Timehri, East Bank Demerara, Guyana
	Sewchan Hemchan, Guyana Civil Aviation Authority	Electrical Engineer	sewchan_hemchan@yahoo.com	(592) 261-2569	Control Tower complex, Cheddi Jagan International Airport, Timehri, East Bank Demerara, Guyana
PAR	Ramón Salinas Ruiz, DINAC	Gerente de Telecomunicaciones y Electrónica	salinas_184@hotmail.com; salinas_184@gmail.com	(595) 21 758 5208	Centro de Control Unificado, Gral. Artigas y Fernando de Mompox, Mariano Roque Alonso, Paraguay
	Aldo Pereira Alcaraz, DINAC	Jefe Sección Radiocomunicaciones	aldopereira26@gmail.com	(595-21) 645-708; (595-21) 645598	Centro de Control Unificado, Gral. Artigas y Fernando de Mompox, Mariano Roque Alonso, Paraguay
PER	Luis Silva Gárate, CORPAC	Jefe del Equipo encargado de la Operac. y Mantto. del Nodo REDDIG-Lima	lsilva@corpac.gob.pe	(511) 515-3015; (511) 414-1250	Aeropuerto Internacional Jorge Chávez, Callao, Perú

STATE / ESTADO	Name / Nombre	Cargo	E-Mail / Correo-e	Telephone / Teléfono	Address / Dirección
SUR	Rabindre Maharban, Ministry of Transport, Communication and Tourism, Civil Aviation Department	Chief CNS Technical Division	cad.navcom@tct.gov.sr; rabindre2000@yahoo.com	(597) 325-123; (597) 325-172; (597) 497-143	J. A. Pengel International Airport, Zanderij, district Para, Zorg en Hoop Airport, Paramaribo
	Renaldo Lansdorf, Ministry of Transport, Communication and Tourism, Civil Aviation Department	Senior Aeronautical Telecommunication Technician	r.lansdorf@yahoo.com	(597) 325-123; (597) 325-172	J. A. Pengel International Airport, Zanderij, district Para, Zorg en Hoop Airport, Paramaribo
TRI	Rohan Garib, Civil Aviation Authority	Executive Manager Air Navigation Services	rgarib@caa.gov.tt	(1-868) 669-4806 (1-868) 669-4706,	Trinidad and Tobago Civil Aviation Authority Complex, Caroni North Bank Road, Piarco
	Veronica Ramdath, Civil Aviation Authority	Manager Telecommunications and Electronics	vramdath@caa.gov.tt; vramdath@gmail.com		
URU	Marcos Vignolo, DINACIA	Director de Electrónica	mvignolo@dinacia.gub.uy	(5982) 6010932, Ext. 4520	Aeropuerto Internacional de Carrasco Av. Wilson Ferreira Aldunate 253 Paso Carrasco, Canelones
	Miguel Vera, DINACIA	Técnico de la División Comunicaciones	miguelvera@adinet.com.uy	(5982) 6010932, Ext. 4520	Aeropuerto Internacional de Carrasco Av. Wilson Ferreira Aldunate 253 Paso Carrasco, Canelones
VEN	Vicente FioreFedullo, INAC	Jefe Región Maiquetía-Venezuela	v.fiore@inac.gob.ve	(58212) 355-2143; (58212) 355-1412	Edificio ATC, 2do piso, Depto. De Comunica., Maiquetía, Edo. Vargas, Venezuela
	Luis Escobar, INAC	Coordinador de los Sistemas de Comunicaciones CNS Región Maiquetía	l.escobar@inac.gob.ve	(58212) 355-2143; (58212) 355-1412	Edificio ATC, 2do piso, Depto. De Comunica., Maiquetía, Edo. Vargas, Venezuela

APPENDIX C / APENDICE C
TENTATIVE TIME SCHEDULE-PHASES / PROGRAMA TENTATIVO- FASES

ID	Nom de la tâche	Schedule
		Qtr 4, 2012 / Qtr 1, 2013 / Qtr 2, 2013 / Qtr 3, 2013 / Qtr 4, 2013 / Qtr 1, 2014 / Qtr 2, 2014 / Qtr 3, 2014 / Qtr 4, 2014 / Qtr 1, 2015 / Qtr 2, 2015 / Qtr 3, 2015
1	Tentative REDDIG II implementation work programme / Programa tentativo de trabajo implantacion REDDIG II	
2	Phase 1 - Project / Fase 1 - Proyecto	
3	Documentation drafting and approval process / Proceso de elaboración y aprobación documentación	
4	REDDIG II preliminary design installation / Preparación diseño preliminar instalación REDDIG II (SDD)	Winning company/Empresa ganadora
5	Preparation of installation and training procedures documentation and NMS documentaion preparation / Preparacion documentos de procedimiento de instalacion y capacitacion y ptrparacion documentacion del sistema NMS	Winning company/Empresa ganadora
6	FAT protocol preparation / Preparacion protocolo FAT	Winning company/Empresa ganadora
7	SAT protocol preparation / Preparacion protocolo SAT	Winning company/Empresa ganadora
8	Documentation submittance (SDD, FAT/SAT protocol, on-site installation procedure, training manuals) to ICAO / Envio documentación (SDD, protocolo FAT/SAT, procedimiento instalacion sitio, manuales de capacitación) a OACI	24/06
9	Documentation review / Revision de la documentacion	REDDIG member States/Estados miembros REDDIG II ,REDDIG ADM / ADM REDDIG
10	Technical-operational meeting / Reunión tecnico-operacional	
11	Final design/Diseño finalizado	
12	Documentation reviewed and approved / Documentos revisados y aprobados	06/09
13	Schedule DRM /Cronograma DRM	
14	Phase 2 - REDDIG II implementation / Fase 2 - Implantación de la REDDIG II	
15	Purchasing and integration of VSAT equipment / Adquisición e itnegración equipos VSAT	
16	Purchasing of equipment and remittance to company HQ for integration / Adquisición de equipos y envío a la sede de la empresa ganadora para su integración	Winning company/Empresa ganadora
17	Preparation of ground backbone network / Preparación red medular terrestre	
18	Hiring of service for all nodes / Contratación de servicio para todos los nodos	Winning company/Empresa ganadora
19	Equipment purchasing / Adquisión equipos	Winning company/Empresa ganadora
20	Integration at factory, training and FAT / Integracion en fábrica, entrenamiento y FAT	
21	Equipment assembling at factory / Ensamblar equipos en fábrica	Winning company/Empresa ganadora
22	Network configuration and pre-test / Configuracion y pre-test de la red	Winning company/Empresa ganadora
23	Documentation submittance for on-factory-training / Envío documentación para entrenamiento en fábrica	02/12
24	On-factory-training / Entrenamiento en fábrica	REDDIG ADM / ADM REDDIG ,Selected NCC staff/Personal de los NCC seleccionados
25	FAT	Representatives nominated member States/Representantes de Estados miembros nominados ,REDDIG ADM / ADM REDD
26	FAT signature / Firma FAT	24/01
27	Remittance of equipment to sites (customs clearance 1 month approx) / Envío de los equipos a los sitios (liberación equipos aduana 1 mes tiempo estimado)	
28	Preparation of equipment remittance / Preparación para envio de equipos	Winning company/Empresa ganadora
29	Ezeiza	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
30	La Paz	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
31	Rio de Janeiro	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
32	Santiago	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
33	Bogota	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
34	Guayaquil	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
35	Georgetown	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
36	Cayenne	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
37	Asuncion	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
38	Lima	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG
39	Paramaribo	Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG

APPENDIX C / APENDICE C
TENTATIVE TIME SCHEDULE-PHASES / PROGRAMA TENTATIVO- FASES

ID	Nom de la tâche	Qtr 4, 2012 Oct Nov Dec	Qtr 1, 2013 Jan Feb Mar	Qtr 2, 2013 Apr May Jun	Qtr 3, 2013 Jul Aug Sep	Qtr 4, 2013 Oct Nov Dec	Qtr 1, 2014 Jan Feb Mar	Qtr 2, 2014 Apr May Jun	Qtr 3, 2014 Jul Aug Sep	Qtr 4, 2014 Oct Nov Dec	Qtr 1, 2015 Jan Feb Mar	Qtr 2, 2015 Apr May Jun	Qtr 3, 2015 Jul Aug
40	Piarco							Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG					
41	Montevideo							Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG					
42	Maiquetia							Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG					
43	Manaus							Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG					
44	Recife							Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG					
45	Curitiba							Winning company/Empresa ganadora ,REDDIG focal point/Punto focal local REDDIG					
46	Theoretical-practical course in Rio de Janeiro / Curso teórico-práctico en Río de Janeiro												
47	Session 1 (10 Spanish-speaking) / Sesión 1 (10 personas en español)							REDDIG member States/Estados miembros REDDIG II					
48	Session 2 (10 Spanish-speaking) / Sesión 2 (10 persons en español)							REDDIG member States/Estados miembros REDDIG II					
49	Session 3 (10 Spanish-speaking) / Sesión 3 (10 personas en español)							REDDIG member States/Estados miembros REDDIG II					
50	Session 4 (10 English-speaking) / Sesión 4 (10 personas en inglés)							REDDIG member States/Estados miembros REDDIG II					
51	On-site installation activities / Actividades de instalación en el sitio												
52	Simultaneous on-site installation / Instalación todos los sitios en forma simultánea							Winning company/Empresa ganadora					
53	PSAT / NSAT (provisional and network acceptance test) / (Prueba de aceptacion provisional y de red)							REDDIG focal point/Punto focal local REDDIG					
54	PSAT / NSAT Signature / Firma							◆ 16/05					
55	FSAT (Final acceptance test) / (Prueba de aceptacion final)							REDDIG focal point/Punto focal local REDDIG ,REDDIG ADM / ADM REDDIG					
56	FSAT signature / Firma FSAT							◆ 15/07					
57	Two (2) years' guarantee / Dos (2) años de garantía												

Agenda Item 5:   **Work plan for year 2013**

5.1   The Meeting analysed the following main activities scheduled for 2013:

   a) REDDIG II implementation process;
   b) Implementation of new services; and
   c) 2013 training programme.

REDDIG II implementation process

5.2   The main list of main activities for REDDIG II implementation is shown under Agenda Item 4.

Implementation of new services

5.3   The Meeting took note that installation of the ATS speech circuits between the ATS units located in the following frontier areas of Brazil would be completed by the end of April 2013: Foz do Iguaçu (Brazil) – Cataratas (Argentina) and Foz do Iguaçu (Brazil) – Guaraní (Paraguay). The Uruguaiana (Brazil) – Pasos de los Libres (Argentina) circuits would be completed by the last quarter of 2013. Regarding the Guajaramirim (Brazil) – Guayamirin (Bolivia) and Corumbá (Brazil) – Puerto Suarez (Bolivia) circuits and since the Meeting was not informed on a target date for their installation, the aeronautical administration of Bolivia (AASANA) was urged to complete implementation of these circuits as soon as possible, in view of their urgent operational requirement, particularly the Corumba – Puerto Suarez circuit.

5.4   Also, the Meeting was informed that by April 2013, the Brazil (Manaos) and United States (Atlanta via Bogotá) circuits would become operational in the MEVA II / REDDIG interconnection, and that the Bogota – Panama circuit would also be implemented by the last semester of 2013, through MEVA II/REDDIG interconnection.

5.5   In addition, the States involved informed that, as part of the regional AMHS implementation plan, AMHS interconnection would be completed in accordance with the action plan in **Appendix A** to this Agenda Item, which shows the regional AMSH interconnection plan of the States having drafted and signed a Memorandum of Understanding (MoU).

5.6   Last of all, the Meeting was indicated that the automation interconnection activities taken under consideration in the MoUs reviewed and signed between Argentina –Brazil, Argentina –Chile, Argentina–Uruguay, Brazil-Peru and Brazil-Venezuela, would be soon implemented.

2013 training programme

5.7   The Meeting, in view of the success of the COM AMHS Course (Lima, Peru, 16-20 July 2012) and taking into account the comments formulated during the Course, approved repeating the Course in Lima, Peru, from 24 to 28 June 2013. For this Course, one fellowship per each REDDIG member State will be offered. The Course's programme is shown in **Appendix B** to this Agenda Item.

5.8   Information was provided that the 2013 programme of activities for REDDIG II implementation has an on-factory (France) theoretical/practical training course scheduled for six (6) people, to cover networks design, configuration and operation, aimed for network control centre (NCC) personnel; and that the courses on operation and maintenance of REDDIG II nodes, would be held in 2014 in Rio de Janeiro, Brazil, for a total of 30 persons. The dates initially programmed for the mentioned courses are indicated in the REDDIGG II implementation chronogramme under Agenda Item 4, Appendix C. The dates of these events could be before or after, depending on the progress in the implementation of REDDIG II.

APPENDIX A

ACTION PLAN FOR THE INTERCONNECTION OF AMHS SYSTEMS IN THE SAM REGION

ITEM	ACTIVITY	RESPONSIBLE	EXPECTED RESULT	STATUS	FINALIZATION DATE
1	2	3	4	5	6
1	Review of the ATN Regional Plan as regards AMHS implementation	Secretariat	Revised ATN ground ground applications plan (Table CNS 1Bb)	Completed	Jun 2009
2	Review and assignment of intra-regional routers IP addressing	Secretariat	Assignment of IP addressing	Completed	Jun 2009
3	Review of CAAAS addressing plan	SAM States	Revised CAAS addressing Plan	Completed	Jun 2009
4	Prepare interconnection protocol tests to determine bandwidth required for transmission of AMHS messages between MTAs through REDDIG	RLA/06/901 project CNS Expert	Protocol interconnection tests. A guide for the operational interconnection of AMHS systems was drafted	Completed	Dec 2009
5	Preparation of Guide for the Operational Interconnection of AMHS Systems in the SAM Region	RLA/06/901 project CNS Expert	Guide for the operational interconnection of AMHS systems in the SAM Region	Completed	Oct 2009
6	Drafting of a model MoU for the interconnection of AMHS	Argentina	Model MoU for the interconnection of AMHS	Completed	Oct 2009
7	MoU for the interconnection of AMHS currently implemented in the SAM Region: a) Argentina-Brazil b) Argentina-Chile c) Argentina-Peru d) Argentina-Paraguay e) Brazil-Colombia f) Brazil-Paraguay g) Brazil-Peru h) Chile-Peru i) Colombia-Peru j) Colombia-Panama k) Colombia-Venezuela l) Peru-Venezuela m) Brazil-Suriname n) Guyana-Venezuela o) Suriname-Venezuela p) Brazil-Guyana q) Guyana-Suriname r) Brazil-Venezuela s) Bolivia-Peru t) Bolivia-Brazil u) Bolivia-Argentina v) Ecuador-Peru w) Ecuador-Colombia x) Ecuador-Venezuela y) Bolivia-Paraguay The AMHS interconnection MoU in French Guiana (France) and Uruguay should be drafted once AMHS installation is completed at national level.	SAM States involved	MoU for interconnection of AMHS systems between SAM States having AMHS implemented	**Valid** a), b) c), d), f), g), i), l), q) & v) completed	h) TBD j) Oct 2013 k) Mar 2013 m) TBD n) TBD o) TBD p) TBD r) TBD s) TBD t) TBD u) TBD w) Mar 2013 x) Mar 2013 y) TBD

ITEM	ACTIVITY	RESPONSIBLE	EXPECTED RESULT	STATUS	FINALIZATION DATE
1	2	3	4	5	6
8	Phase I Interconnection trials between MTAs of: a) Argentina-Brazil b) Argentina-Paraguay c) Brazil-Paraguay d) Colombia-Peru e) Argentina-Chile f) Argentina-Peru g) Brazil-Peru h) Guyana-Suriname i) Ecuador-Peru j) Brazil-Colombia k) Perú-Venezuela Types of tests to carry out: Network transportation; Network connectivity; Message exchange; Preparatory phase. **Note**: Inclusion has been made of only the AMHS interconnected between States having implemented and signed the MoU.	Argentina, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Venezuela and REDDIG Administration	Interconnection trials between Argentina, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname and Venezuela MTAs	**Valid** a), f), g) message exchange trials were held between CIPE (Argentina)-Brasilia (Brazil) MTAs; the Manaos (Brazil)-Lima (Peru) MTAs, and the CIPE (Argentina)-Lima (Peru) MTAs. c) MoU was updated, as entrance node to Brazil will be Curitiba, and the network connectivity, and transport and exchange of messages tests will be carried out. b), d), h) and i) Operational interconnection trials completed c), e), j), and k) No tests carried out f) operational trial pending	a) Jun 2012 Completed b) Mar 2012 Completed c) Dec 2012 d) Oct 2010 Completed e) Mar 2013 f) Dec 2012 g) Dec 2012 h) Jun 2011 Completed i) Jul 2012 Completed j) Dec 2012 k) Feb 2013
9	Operational interconnection implementation at the following MTAs: a) Argentina-Paraguay b) Argentina-Brazil c) Argentina-Chile d) Argentina-Peru e) Brazil-Paraguay f) Brazil-Peru g) Colombia-Peru h) Guyana-Suriname i) Ecuador-Peru j) Brazil-Colombia k) Peru-Venezuela **Note**: Inclusion has been made of only the AMHS interconnected between States having implemented and signed the MoU.	Argentina, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, and Venezuela	Operational implementation of AMHS systems	**Valid** AMHS interconnection completed between following MTA, using P1 protocol and operational: Colombia-Peru Guyana-Suriname Argentina-Paraguay Ecuador-Peru	a) Mar 2012 Operational b) Dec 2012 c) TBD d) Dec 2012 e) Dec 2012 f) Dec 2012 g) Nov 2010 Operational h) Jul 2011 Operational i) Jul 2012 Operational j) Mar 2013 k) Mar 2013

APPENDIX B / APÉNDICE B

COURSE ON ATS MESSAGE HANDLING SYSTEM (COM-AMHS)
CURSO SOBRE EL SISTEMA DE TRATAMIENTO DE MENSAJES ATS (COM-AMHS)

MODULE 01: THEORY FOR THE USER

1. **INTRODUCTION**
   Module Objectives
   The References for this course

2. **DATA COMMUNICATIONS TECHNOLOGY**
   Seven Layers
   Role of Communications in an ATM System
   ICAO Data Applications
   ATN Upper/Lower Layer Protocols
   The move to IP
   So, what is ATN?

3. **MESSAGING AND E-MAIL**
   What is a Message?
   The Postal Analogy
   Point to Point Messaging
   Store and Forward / Retrieve Messaging

4. **ATC MESSAGING AND AFTN/CIDIN**
   The ATC Requirement for Messaging
   Current Messaging Requirements
   Messaging Application - an ATC Example
   ICAO Protocols and Standards
   Services provided by the AFTN
   AFTN Procedures
   AFTN Addressing
   ICAO Regions
   Message Formats
   AFTN Inter-Centre Communication
   AFTN Limitations
   Why migrate to AMHS
   Benefits of AMHS
   The Way Forward

5. **X.400 : DEFINING THE TERMS**
   What is MHS?
   Standards Development
   What is a Message Handling System?
   Message Structure
   MHS Information Objects
   MHS Services
   The MHS Architecture
   (A)MHS components: (ATS) Message Server
   (A)MHS components: (ATS) User Agent

(A)MHS Components: The Message Store
(A)MHS Components: Access Units
The Journey of a Message
Management Domains
ADMDs and PRMDs
AMHS Management Domains
'XX' Country Codes
OR-Address Forms
The Need for Directory Services
Directory Overview
Security Threats
The MHS Security Functional Groups

6.   X.400 - THE COMMUNICATIONS PROTOCOLS
Connecting MHS System Components
MHS Protocols
Underlying Networks: Physical vs. Logical Connections
AMHS Network over underlying network
Levels of connectivity in the AMHS architecture
Why not SMTP?

7.   X.400 - MTS AND IPMS
MTS Functional Groups
Basic MTS Envelope
Delivery Reports
Non-Delivery Reports
The IPMS Elements of Service & IPM Heading
Receipt, Non-Receipt & Other Notifications

8.   FROM MHS TO AMHS - ICAO ATN SARPS
AMHS SARPs Development
Basic and Extended Services
Selected Functions of the Extended Services
AMHS components: AFTN/AMHS Gateway
AMHS Message Formats
Message and Report Mappings
Message Field Mappings
Scenarii for an AFTN SS Message
AMHS address types
The A in AMHS

9.   STRATEGY
PENS: Pan European Network Services over IP
The PENS - Status
PENS contract signed
COM05
COM05 progress report
Where are we today with AMHS?
HARE Programme
Single European Sky - Messaging
AMHS in SESAR
SWIM and SESAR
Future Communications Infrastructure

10. AMHS IN THE WORLD
    AMHS in ASIAPAC
    AMHS ASIAPAC Network
    Transition - ASIAPAC
    AMHS in CARSAM

11. CONCLUSION
    Conclusion
    Programme

MODULE 02: AMHS SYSTEM DESIGN AND TECHNICAL ISSUES

1. INTRODUCTION
    Objectives

2. DRIVERS FOR AFTN/CIDIN MIGRATION
    Reminder: Why migrate to AMHS

3. AMHS SYSTEM DESCRIPTION
    AMHS System Description
    General AMHS Overview
    ATSMHS traffic flows
    How does an X.400 system work?
    AMHS information model
    AMHS Objects
    Flow of Information Objects in AMHS
    AMHS activity over underlying networks
    ATM applications over UNDERLYING NETWORKS
    Topology of AMHS servers: centralised vs. distributed
    Network characteristics determined by topology
    European ATS Messaging Profile
    AMHS QoS Requirements

4. AMHS SYSTEM DESIGN CRITERIA
    Phases for AMHS Deployment
    Transaction Examples
    Technical Criteria
    Modular Solution
    Scalable and Portable Solution

5. AMHS USER TYPES

Evolution/Migration of Users
TYPE of ATM COMs SERVICES
Objectives for the User Migration Process
How does a User Agent Work?
What does the User do?
... and what tools does the user have?
UA: Free Text Format Message
UA: Auto-Formatting AIS Messages
UA: Auto-Formatting ATS Messages
UA: Auto-Formatting MET Messages
UA: Non Delivery Reports (NDR)
UA: Receipt Notifications (RN)
UA: Tracking Sent Messages
UA: Filtering Tool
UA: Message Backup
AU: Access Unit
Logical Connections for the ICARO/AMHS Solution
Access Unit: EAD Solution
EURONOTAM (I): COMMUNICATIONS FLOW
EURONOTAM (II): PHYSICAL TOPOLOGY
Exercises

6. AMHS SYSTEM MANAGEMENT TOOLS

Support Levels
Main AMHS Management Tools
High Level Administration Tool (HILA) (1)
HILA (2): Users and Adjacent MTAs
HILA (3): Local Users Administration
HILA (4): Adjacent MTAs Admin
HILA (5): Routing Table Administration
Local and Central Supervision
SNMP Alarms Supervision
End-to-End View Based on SNMP
Tracking Tool (1)
Tracking Tool (2): Web-based Administration Tool
Tracking Tool (3): Search Criteria
Tracking Tool (4): Results
Messaging Activity Monitor (1)
Messaging Activity Monitor (2): Users' View
Messaging Activity Monitor (3): Adjacent MTA's View
Messaging Activity Monitor (4): Alarms View
Messaging Activity Monitor (5): Global View
UA Archive: Control Position
AMHS Queue Monitoring
Historical Data Storage Manager
Statistics
Time Synchronisation: Network Time Protocol NTP
Remote Monitoring

7. **AMHS COMMON FACILITIES**
    Common Facilities
    Pan-European IP Network: PENS
    Example: Madrid-Frankfurt IP Connection
    PENS current situation
    MAIN OBJECTIVES AND BENEFITS OF PENS
    POTENTIAL PENS USERS
    CONSIDERATIONS About SWIM, AMHS and PENS
    Transition Plan IPv4/IPv6
    Protocol Stacks for Transition-Phase AMHS Applications
    CIDIN Management Center (CMC)
    EUR/NAT COM Chart
    ATS Messaging Management Centre (AMC)
    Directory Services
    Name Resolution
    Address Conversion
    UA: Directory Query
    Inter-Regional Gateways
    An MTA with Dual Stacks
    SITA TYPE B / AMHS Gateway (1) : Initial Situation
    SITA TYPE B / AMHS Gateway (2): Message Migration
    AMHS Security
    Testing and Training Facilities
    Examples of Testing Tools
    Human resources analysis for IP/AMHS interoperability activities
    Platform Standardization Test

MODULE 03: AMHS OPERATIONAL ISSUES

1. **AMHS OPERATIONAL ISSUES**
    Main AMHS Operational Issues
    AMHS Addressing: CAAS
    AMHS Addressing: XF
    AMHS Addressing: CAAS and XF
    AMHS Addressing: CAAS vs. XF
    How to define a national CAAS scheme
    AMHS Addressing Registry
    XF Address Conversion: Use of the ICAO registry
    CAAS Addr. Conversion: Use of the ICAO registry
    Global AMHS Address Registration
    International Topology and Routing Strategy
    Conversion between an AMHS IPM and an AFTN message
    Mapping priorities
    Conversion of AFTN Service Messages
    Acknowledgement of SS-priority messages
    Reception of an AMHS message with ATS-Message-header SS and RN not requested
    Reception of an AMHS message with ATS-Message-header no SS and RN requested
    Reception of RN with subject message not generated by the AFTN/AMHS GW
    AMHS to AFTN Direction (reception of a Non-Receipt-Notification)
    Message rejection due to the use of an unknown addressee indicator or recipient
    Rejection of an AFTN-to-AMHS message: Transfer of NDR to the control position
    Reception of NDR with subject message not generated by the AFTN/AMHS GW
    AFTN to AMHS direction: Unsuccessful conversion of addressee indicator in incomi

AFTN to AMHS Direction (unsuccessful conversion of origin OGN indicator)
AMHS to AFTN Direction (unsuccessful conversion)
AMHS to AFTN Direction (non-delivery and out-of-line situations)
Legal AMHS Recording
Legacy Procedures
Management of MTA names and passwords
Replacing CIDIN operator messages with AFTN service messages
Associations between MTAs: Dialogue mode
Simultaneous P1 associations
Application and network timers optimization
AMHS operational issues

2.   OPERATIONAL AFTN MIGRATION TO AMHS
AFTN to AMHS Migration
Decisions during AMHS Planning
Pre-requisite tasks
Tasks to be performed with every AMHS COM centre
Testing phases
Preoperational scenario
Details of the preoperational phase
AFTN Flows migration to AMHS: Objectives
AFTN Flows migration to AMHS: Initial situation
AFTN Flows migration to AMHS: Step 1
AFTN Flows migration to AMHS: Step 2
AFTN Flows migration to AMHS: Step 3
AFTN Flows migration to AMHS: Step 4a
AFTN Flows migration to AMHS: Step 4b
Operational AFTN migration to AMHS

Interconnection considerations

3.   THE FIRST PROJECT ACTIVITIES
Current Status
FIRST
Outcomes of the FIRST Team
First Operational IP Link: MADRID-FRANKFURT
FIRST Team: Testing Structure
FIRST Team: Testing Development

4.   CONCLUSION , DOCUMENTATION AND GLOSSARY
ICAO documentation
AMHS SARPs sub-volume 3
Need for Amendment to SARPS (PDRs)
Glossary
Conclusion

Agenda Item 6:   Financial situation of the project and approval of the Budget for year 2013

6.1   Under this agenda item, the Coordination Committee took note of the expenses incurred by Project RLA/03/901 and the situation of cost-sharing contributions in 2012.

Summary of expenditures incurred by Project RLA/03/901 between 2003 and 2012

6.2   The Secretariat provided the Committee with details of the expenditures incurred by Project RLA/03/901, as shown in **Table # 1**. The project spent approximately **USD 701,300** in 2012 and a total of **USD 5,337,036** from 2003 to 2012. Expenditures corresponding to 2012 are subject to confirmation based on final financial statements.

6.3   Table # 2 contains a bar chart with the distribution of project expenditures by year, as well as a pie chart showing the percentage of implementation of each budget component.

Status of cost sharing contributions

6.4   The Committee took note of the status of cost sharing contributions listed in Table # 3, which showed a distribution consistent with the proposed project budget Revision "R". Contributions total **USD 7,809,311** to date, and after deducting expenditures of **USD 5,337,034,** the remaining positive balance is **USD 2,472,277**. Appendix A of this agenda item contains Tables # 1, 2, and 3.

6.5   Additionally, a revision on Project contributions has been conducted, and accordingly there is a balance in favour of the States. In view of this, the Secretariat proposed to the Committee to apportion the subsequent REDDIG costs sharing contributions. In this regard, the Committee deemed appropriate to apportion the subsequent project costs.

6.6   Despite the favourable financial balance of the project, full payment of 2012 and 2013 contributions is required so as not to hinder project implementation.

Project budget increase to cover the REDDIG II implementation

6.7   Subsequently, the Committee took note of the adoption of substantive Revision "Q" of RLA/03/901 project document, primarily aimed at incorporating, as Immediate Objective # 4, the acquisition, installation, commissioning and maintenance of the new REDDIG II digital network, which was circulated for the corresponding signature by member States. To date, the States that have signed this document are Brazil, Chile, Colombia, Peru and Venezuela. In this regard, the Meeting urged REDDIG State members that had not yet signed the substantive Revision Q of Project RLA/03/901 to do it shortly.

6.8   The estimated cost for REDDIG II implementation is USD 4,500,000, 57% of which has been received to date. At this point, the Committee took note of the need for States to make their respective deposits for the REDDIG II acquisition as soon as possible. To this end, the total amount of the contributions is required. The Meeting recalled that a delay in the contributions for the REDDIG II acquisition would hinder the validity of the economic offer, as well as the availability of the current network in view of the difficulties to maintain node equipment since most of them (MODEM, FRAD) are no longer commercially available. The States that had not yet made the deposit of the extraordinary quota were Argentina, Bolivia, Chile, Paraguay, Suriname, and Venezuela.

6.9   According to the above, the Committee considered the adoption of the following conclusion:

Conclusion RCC 16/3 -   Payment of cost sharing contributions to Project RLA/03/901

That:

a) Argentina, Suriname and Trinidad y Tobago make the deposit of cost-sharing contributions of Project RLA/03/901 corresponding to year 2012; and

b) Argentina, Bolivia, Chile, Paraguay, Suriname and Venezuela deposit as soon as possible the REDDIG II extraordinary quota, in order to satisfactorily finalize the process of hiring the REDDIG II and ensure continued availability of the network.

6.10   Finally, the Committee, after examining the budget of Revision "R" to Project RLA/03/901, prepared by the Secretariat, agreed to adopt the following conclusion:

Conclusion RCC 16/4 -   Approval of the budget of the Revision "R" of Project RLA/03/901

That the Sixteenth Meeting of the Coordination Committee of Project RLA/03/901 approve the Budget of Revision "R" of Project RLA/03/901, as shown in the **Appendix B** to the Report on Agenda Item 6.

Table # 1 - Detailed breakdown of expenditures up to 31 December 2012

(expenditures in 2012 are subject to confirmation with the final financial statements)

Concepto	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	TOTAL
BL 11 Experts											
REDDIG Administrator	22,359	93,953	101,296	156,503	197,784	177,449	207,289	201,030	209,250	230,000	1,596,913
Consultants		-6,303				1,499			9,200	17,800	22,196
BL 13 Administrative support											
13-01 Secretary	354	12,185	12,551	0	15,968	18,987	16,497	14,066	19,086	20,000	129,694
13-02 REDDIG technician		12,000	12,108	711							24,819
13-05 Administrative and financial assistant									10,670	12,500	23,170
13-06 Information technology clerk									8,931	200	9,131
BL 15 Official trips		321	925	499						26,000	27,745
BL 16 Missions	3,504	4,110	16,732	18,642	18,357	25,718	10,615	14,110	10,250	11,500	133,538
BL 17 National professionals							2,080		961		3,041
BL 20 Sub-contracts											
21-01 PanAmSat (1 Oct-31 Dec 2003) PO 30473	62,727										62,727
21-01 PanAmSat (2004) P.O. 40670		168,849	231,264	231,264	231,264	231,264		693,792		231,264	2,018,961
21-02 Network access									32,831	33,132	65,963
21-07 MEVA/REDDIG Non Recurrent								77,684			77,684
21-98 Professional liability insurance		845	1,156	3,469		1,156	1,156	1,810		5,000	9,592
BL 39 Training		3,014	53,862	30,553	34,044	32,852	34,412	29,496	5,130	35,111	258,474
BL 40 Equipment											
45-01 Spare parts		-12,752	59,541	36,311	71,637	33,997	108,509	8,218	2,896	3,419	311,776
45-02 Office equipment	82		2,083	-30	0			351	3,402	700	6,588
45-03 Equipment operation and maintenance		1,716	1,782		0			1,676	2,009		7,183
45-04 Transfer of NCC from SPIM to SBMN											
PO 40694 VIASAT		8,250									8,250
PO 40687 MEMOTEC		4,250									4,250
45-05 PO 40489 Extension of SEEE contract		50,000									50,000
45-06 PO 40090 SEEE back-up network		24,820									24,820
45-09 MEVA-REDDIG interconnection equipment									9,439		9,439
45-98 Professional liability insurance (PLI)		444	284	246		130	1,109	1,250		289	3,752
BL 53-01 Tel., banking expenses, courier, etc.	643	4,726	4,475	1,150	8,688	4,632	3,703	14,253	13,351	5,900	61,521
BL 53-02 PNUD services		118	505	337			3,318			600	4,878
55-01 AOSC overhead	6,439	28,795	35,817	37,372	34,601	39,503	55,621	33,357	36,539	67,885	375,929
TOTAL	96,108	399,341	534,381	517,027	612,343	567,187	444,309	1,091,093	373,945	701,300	5,337,034

Table # 2
Distribution of project expenditures per year
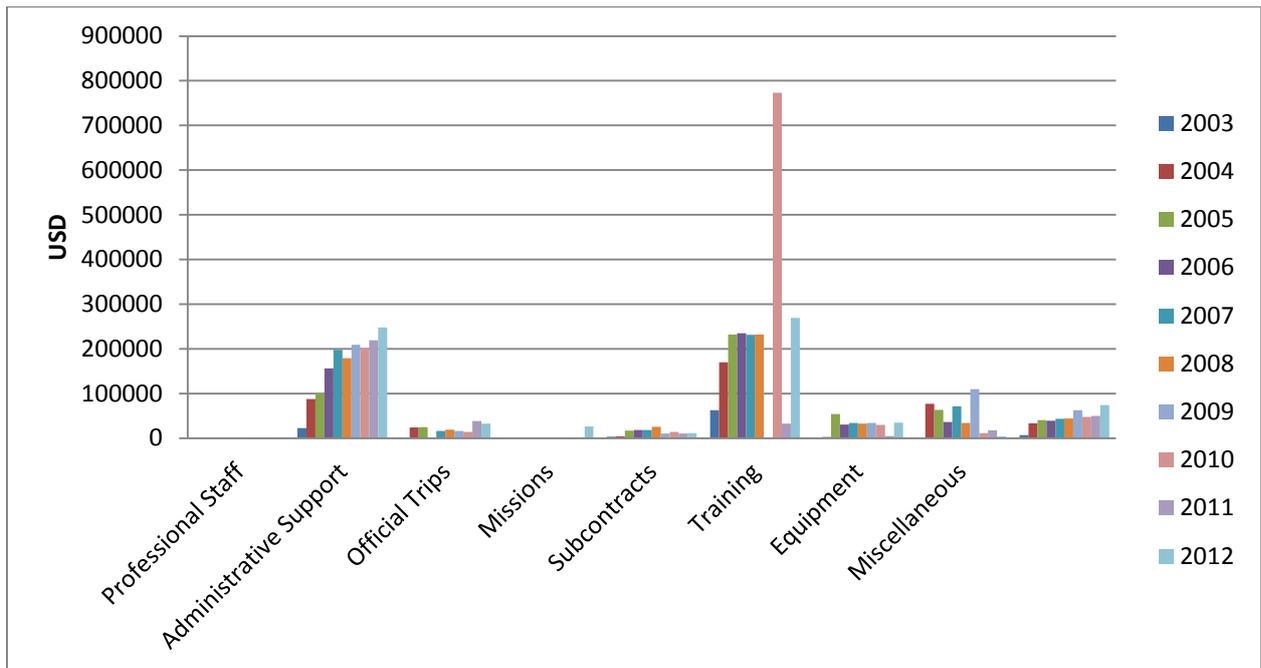
Percentage of implementation by each budget component
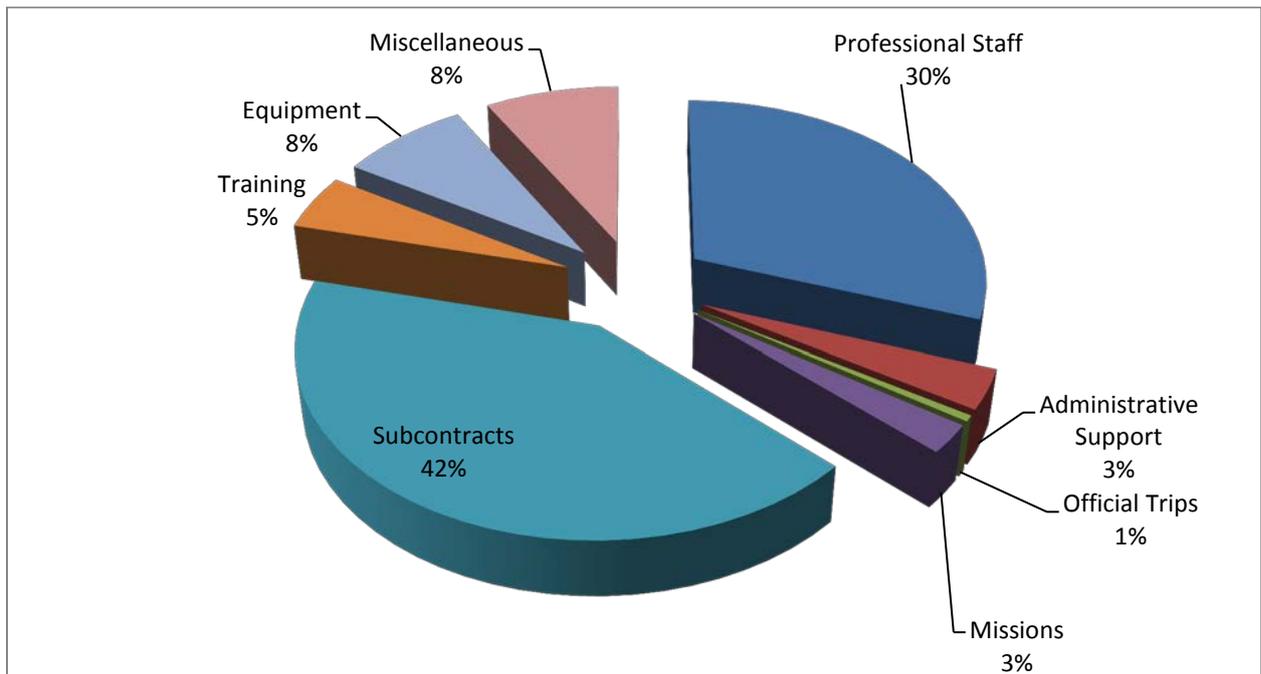
Table # 3 - Status of cost-sharing contributions to Project RLA/03/901

	2003-2006		1 Jul 2007		1 Jul 2008		1 Jul 2009		1 Jul 2010		1 Jul 2011		1 Jul 2012		Totals		
	Quota	Paid	Quota	Paid	Quota	Paid	Quota	Paid	Quota	Paid	Quota	Paid	Quota	Paid	Quotas	Paid	Debts
Argentina	163,063	167,483	66,700	65,423	80,000	77,660	85,063	85,559	86,201	0	82,500	167,402	363,218	0	926,745	563,527	363,218
Bolivia	124,163	124,143	10,900	0	43,675	54,595	52,460	52,460	48,039	48,039	43,924	43,924	324,355	43,105	647,516	366,266	281,250
Brasil	387,090	389,855	60,800	58,035	81,444	81,444	118,154	118,039	137,644	142,700	148,003	148,003	993,893	993,893	1,927,028	1,931,969	-4,941
Chile	178,513	207,223	28,710	0	29,500	29,500	29,500	29,500	1,000	1,000	45,000	45,000	44,791	44,791	357,014	357,014	0
Colombia	186,363	186,363	150,000	0	0	150,000	7,441	7,441	0	0	67,201	67,201	346,822	412,394	757,827	823,399	-65,572
Ecuador	110,713	110,713	19,000	19,000	40,865	40,865	51,589	51,589	35,000	35,000	35,000	35,000	328,951	328,951	621,118	621,118	0
France	93,363	93,363	25,000	25,000	45,795	45,795	51,371	51,371	24,092	24,092	42,203	42,178	323,622	323,572	605,446	605,371	75
Guyana	87,013	64,487	15,000	27,854	35,935	35,378	43,009	29,119	30,000	43,870	30,000	63,148	314,398	328,347	555,355	592,203	-36,848
Paraguay	100,663	100,663	25,600	25,600	46,160	46,160	53,262	53,262	47,056	0	40,162	87,148	323,073	41,848	635,976	354,681	281,295
Peru	154,113	154,103	40,000	40,010	71,372	71,372	77,820	77,820	78,271	0	77,000	155,271	349,287	349,287	847,863	847,863	0
Suriname	88,913	60,198	18,300	0	36,412	28,670	44,752	18,330	30,000	0	30,000	111,164	318,461	29,983	566,838	248,345	318,494
Uruguay	120,513	120,483	77,171	77,156	64,003	52,871	39,759	39,729	30,000	29,970	30,000	29,971	325,269	333,134	686,715	683,314	3,401
Venezuela	133,013	133,013	38,700	38,700	71,774	71,774	81,664	81,664	88,967	88,967	80,000	80,000	368,283	87,033	862,401	581,151	281,250
Trinidad and Tobago	45,400	45,384	15,500	15,500	37,791	37,787	48,776	48,776	30,000	29,980	30,000	0	318,571	318,528	526,038	495,955	30,083
COCESNA							0	0	28,400	0	19,193	65,145	19,193	19,178	66,786	84,323	-17,537
Sub-Totales	1,972,896	1,957,475	591,381	392,278	684,726	823,871	784,620	744,659	694,670	443,618	800,186	1,140,555	5,062,187	3,654,044	10,590,666	9,156,499	1,434,167
Interest	32,054	32,054	17,065	17,065	8,630	8,630	2,023	2,023	785	785	468	468	658	658	61,683	61,683	
Adjustments							-75	-75	-15	-15	379	379	-38	-38	251	251	
Sub-Totals	32,054	32,054	17,065	17,065	8,630	8,630	1,948	1,948	770	770	847	847	620	620	61,934	61,934	
Totals	2,004,950	1,989,529	608,446	409,343	693,356	832,501	786,568	746,607	695,440	444,388	801,033	1,141,402	5,062,807	3,654,664	10,652,600	9,218,433	1,434,167

NOTE: Some differences between the amount deposited by the States and that shown by ICAO are due to transaction costs or exchange rates.

Agenda Item 7:   **Annual project evaluation**

7.1   Under this agenda item, the Coordination Committee took note that, with the implementation of the Quality Management and Continuous Improvement System (QMCIS) of ICAO's Technical Cooperation Bureau, several forms to be completed by the authorities that receive assistance were being used for measuring, assessing, and doing the follow-up of project results.

7.2   In this regard, the Committee made the annual project evaluation using the following documents:

> a)   Project status as of 31 December of each year, and management and result indicators;
> b)   Project monitoring and control, Work plan for the year; and
> c)   Survey on management and result indicators.

Annual assessment of project progress

7.3   The Committee reviewed the status of the project as of 31 December 2012, as shown in **Appendix A**. Project monitoring and control tables in relation to the 2013 work plan appear in **Appendix B**.

7.4   **Appendix C** is a consolidation of the comments and ratings provided by the participating States that completed the management and result indicator survey forms for 2012.

7.5   Regarding the results of the assessment of project progress in 2012 by the States that responded to the survey, the Committee took note that the average score obtained was 4 points over a maximum of 5, which, according to the corresponding table, means that project objectives were achieved in all cases.

7.6   In relation to the assessment of the project at present, it was noted that, in general, project objectives and scope were adequate. As to opportunities for improvement, a request was made to review the system for controlling and monitoring the implementation of services and the resolution of failures.

7.7   Likewise, one State suggested the possibility of conducting a feasibility study of the availability of communication circuits to support the implementation of Regional Project CAR/SAM RLA/03/902 - *GNSS/SBAS (SACCSA)* within REDDIG II. In this regard, the Committee recalled that the services contemplated in REDDIG II responded to the short- and medium-term requirements specified in the *SAM Performance-Based Air Navigation Implementation Plan* approved at the Twelfth Meeting of Civil Aviation Authorities (RAAC/12) (Lima, Peru, 3-6 October 2011) and that such document did not contemplate the implementation of an SBAS system in the short or medium term.

7.8   Regarding the main achievements of the project in relation to the expected results, the States listed the following:

> a)   High availability of the REDDIG;
> b)   Effective and efficient implementation of new circuits; and
> c)   Successful completion of the REDDIG II bidding process.

7.9   With respect to the main issues affecting the achievement of the expected results, and how they should be addressed, the States pointed out the following:

a)   Delays in customs for the clearance of equipment and spare parts in the States;

b)   Equipment obsolescence; and

c)   Overdue payment of cost-sharing contributions for project implementation and of the extraordinary quota for the REDDIG II.

7.10   Regarding customs clearance logistic problems, the Committee took note of the importance for designated focal points to support the Secretariat in the collection of information on customs requirements in each State in order to expedite such procedures. In turn, the Secretariat would do the follow up of such requirements for their inclusion in the spare part import methodology. Accordingly, the Meeting formulated the following conclusion:

Conclusion RCC/16-5   Customs clearance updatings

That Project RLA/03/901 member States update the information concerning domestic customs clearance requirements and send it to the Project Administration by 31 May 2013, with a view to expediting the import of equipment and spare parts for the REDDIG Project.

1. PROJECT STATUS AS OF 31 DECEMBER 2012 AND MANAGEMENT INDICATORS AND RESULTS	

PROJECT NUMBER: RLA/03/901
PROJECT TITLE: REDDIG Management System and Satellite Segment Administration

IMMEDIATE OBJECTIVE 1	*Elaborate a proposal for the establishment of a multinational mechanism for the definitive administration of the network, considering the studies on this subject to be carried out by GREPECAS.*
OUTPUT 1.1	*Analysis of the possible multinational mechanisms to provide air navigation services in order to determine an arrangement for the administration of the network.*

CURRENT STATUS	Percentage of advance 100%		
PLANNED WORK PLAN	Starting date: XX/XX/XXXX	Delivery date: XX/XX/XXXX	(see the proposed work programme at beginning of year)
CURRENT WORK PLAN	Starting date: XX/XX/XXXX	Delivery date: XX/XX/XXXX Deviation: XX months CAUSE:	

OUTPUT 1.1 OUTPUT	DELIVERABLES / INDICATORS 2012	Remarks
1.1.1 Compile information from the existing multinational mechanisms for the provision of air navigation services, such as: a) COCESNA; b) Eurocontrol: c) Iceland Agreement; d) Others.		Completed
1.1.2 Prepare a comparative chart on the advantages and disadvantages of the possible multinational mechanisms in order to determine an arrangement on this matter for the administration of the network .		Completed
1.1.3 Analyze the best alternatives for a definitive arrangement that allows the establishment of a multinational mechanism for the administration of the network.		Completed

OUTPUT 1.2	*Proposal for the establishment of a multinational mechanism for the administration of the network elaborated.*

CURRENT STATUS	Percentage of advance 100%		
PLANNED WORK PLAN	Starting date: XX/XX/XXXX	Delivery date: XX/XX/XXXX	(see the proposed work programme at beginning of year)
CURRENT WORK PLAN	Starting date: XX/XX/XXXX	Delivery date: XX/XX/XXXX Deviation: XX months CAUSE:	

OUTPUT 1.2	DELIVERABLES / INDICATORS 2012	Remarks
1.2.1 Considering the CAR/SAM FASID guidance material, and the study of the previous output, prepare a multinational mechanism project for the administration of the network.		Completed

OUTPUT	2012	Remarks
OUTPUT 1.3	*Proposal on the definitive multinational mechanism for the administration of the network approved.*	
CURRENT STATUS	Percentage of advance %	
PLANNED WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX Deviation: XX months CAUSE:	

OUTPUT 1.3	DELIVERABLES / INDICATORS	Remarks
	2012	
1.3.1 Project of proposal on the multinational mechanism presented to the following interested parties requesting their comments: a) SAM States; b) GREPECAS; and c) Meeting of Civil Aviation Authorities of the SAM Region.		Completed
1.3.2 Evaluate the comments received and consider them in the preparation of the final proposal.		Completed
1.3.3 Circulate the final proposal to the States requesting its approval		Completed
1.3.4 Approval of the proposal on a multinational mechanism for the administration of the network		Completed
OUTPUT 1.4	*Arrangements to activate the multinational mechanism for the administration of the network prepared.*	
CURRENT STATUS	Percentage of advance 100%	
PLANNED WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX Deviation: XX months CAUSE:	

OUTPUT 1.4	DELIVERABLES / INDICATORS	Remarks
	2012	
1.4.1 Based in the result of 1.3, coordinate with the States the necessary arrangements for the implementation of the approved mechanism.		Completed
1.4.2 Based in activity 1.4.1 prepare a working programme and determine the date of activation of the multinational mechanism.		Completed

OUTPUT	2012	Remarks
IMMEDIATE OBJECTIVE 2	*Administration of the network under the conditions established by the Third Meeting of the Coordination Committee (RCC/3)*	
OUTPUT 2.1	*Administration of the network under the direct management of the project for a two-year period.*	
CURRENT STATUS	**Percentage of advance 100%**	
PLANNED WORK PLAN	Starting date: 01/01/2012 Delivery date: 31/12/2012 (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: 01/01/2012 Delivery date: 31/12/2012 Deviation: 0 months CAUSE:	

OUTPUT 2.1	DELIVERABLES / INDICATORS	Remarks
	2012	
2.1.1 Management the network during the transition period to the definitive multinational mechanism providing the following services to keep the network operating:	99.99% availability of the network since the last meeting of the Coordination Committee to date.	Ongoing
a) Assist the States and provide training for the correct operation of the network nodes.	COM AMHS Course - Eleven REDDIG member States composed by 34 specialists from the aeronautical communications services operational and technical areas participated.	Completed
b) Supervise and control in an efficient manner the network operation, providing the appropriate assistance to the nodes for the identification and solution of operation problems that might arise.	Refer to WP/03, Appendices A, B and C	Recurrent
c) Manage the network configuration keeping the system database updated with the corresponding information of the nodes bandwidth.	The data base is continuously updated.	Continuous
d) Prepare monthly reports on the activities of the network administration and the operating status of the system and circulate them to the States.	Discontinued	Activity performed in the first years of the project
e) Follow up the aspects of the guarantee contracted for the network.	The system is no longer under warranty.	Completed
f) Verify periodically the network maintenance programmes, carrying out the relevant improvements and advise on the planning and implementation of such programmes.	Maintenance programme has not been modified	Recurrent
g) Propose the corresponding procedures to duly coordinate the NCCs' operation (Manaus/Ezeiza).	Procedures have been established which are described in the Maintenance Manual of the REDDIG.	Completed

OUTPUT	2012	Remarks
h) Based on the agreements reached at the RCC/3 on spare parts management policy, propose a process for management of spare parts for the network and how to obtain them so as to ensure a continuous support and the timely supply of these inputs.	Procedure established for the administration of network spare parts.	Completed
i) Approve the procedures proposed in g) and h).	Procedures approved.	Completed
2.1.2 Coordinate adequately with States, other administrative aspects established for the operation of the REDDIG such as:		
a) Supplies provided by the States.	States as owners of REDDIG's nodes provide the supplies required for its operation and the technical staff for maintenance, and those with the NCC, provide the staff plus all requirements for its operation.	Continuous
b) Quantity and quality of the human resources to be provided by the States for the operation and maintenance of the network.	Each State that has a REDDIG node provides at least two experts with good technical skills to perform maintenance. The state conducting (NCC) management provides a minimum of five experts with a good technical background.	Completed
c) Facilities, access to site, transportation/mobilization, personnel assistance, telecommunications means, etc.	All the REDDIG nodes hcount with the indicated facilities	Completed
OUTPUT 2.2	*REDDIG budget approved.*	
CURRENT STATUS	**Percentage of advance 100%**	
PLANNED WORK PLAN	Starting date: 02/01/2012 Delivery date: 31/03/2012 (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: 04/01/2011 Delivery date: 15/08/2012 Deviation: 0 months CAUSE:	

OUTPUT 2.2	DELIVERABLES / INDICATORS	Remarks
	2012	
2.2.1 Prepare and submit annually to the ICAO Regional Office in Lima a budget for the REDDIG administration for approval.	Budget for 2012 prepared by the REDDIG Administration and presented to the ICAO South American Regional Office.	Recurrent
2.2.2 Prepare an annual report on the activities of the network management and the program of activities for the coming year, including budget estimates.	Report of the 2012 activities and work plan for 2013 prepared by the REDDIG Administration and the ICAO South American Regional Office.	Recurrent
2.2.3 Prepare the annual budget of the REDDIG.	Budget for 2013 revised and prepared by the ICAO South American Regional Office for presentation to the Coordination Committee.	Recurrent
2.2.4 Convene a meeting of the REDDIG Coordination and Technical Committee in April of each year.	XVI meeting of the Coordination Committee convened by the ICAO South American Regional Office to be held in Lima from 18 to 20 March 2013.	Recurrent
2.2.5 Approve the annual budget of the network.	Budget for 2012 approved by the XV meeting of the Coordination Committee (Lima, 15-17 August 2012).	Recurrent

OUTPUT	2012	Remarks
2.2.6 Review and approve the annual activity report and the program of activities for next year, presented by the network administrator.	Report on 2011 activities and work plan for 2012 revised and approved by the XV meeting of the Coordination Committee (Lima, 15-17 August 2012). Refer to WP/06.	Recurrent
2.2.7 Review and approve expenditures and accounts of the REDDIG administration.	Report on 2011 expenses and accounts revised and approved by the XV meeting of the Coordination Committee (Lima, 15-17 August 2012). Refer to WP/07.	Recurrent
OUTPUT 2.3	*Satellite segment leased*	
CURRENT STATUS	Percentage of advance 90%	
PLANNED WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX Deviation: 0 months CAUSE:	

OUTPUT 2.3	DELIVERABLES / INDICATORS	Remarks
	2012	
2.3.1 Based on Conclusion RCC 3/7 of the Third Meeting of the Coordination Committee, establish the most convenient arrangement for leasing the satellite segment from PanAmSat, subsequently designated as Intelsat.	Agreement established.	Completed
2.3.2 Approve the arrangement to be proposed to PanAmSat, subsequently designated as Intelsat.	Arrangement approved.	Completed
2.3.3 Collect the funds to lease the satellite segment and sign the contract.	Funds collected regularly and satellite segment leased in accordance with the established arrangement.	Recurrent
IMMEDIATE OBJECTIVE 3	*In accordance with the requirements of the CAR/SAM FASID and of the Plan of Implementation of the Performance-based Air Navigation System for the SAM Region, plan the regional development of CNS/ATM applications and implement such applications in coordination with projects RLA/98/003 and RLA/06/901, as appropriate.*	
OUTPUT 3.1	*CNS/ATM applications identified.*	
CURRENT STATUS	Percentage of advance %	
PLANNED WORK PLAN	Starting date: 21/03/2011 Delivery date: 30/11/2011 (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: 21/03/2011 Delivery date: 30/11/2011 Deviation: 0 months CAUSE:	

OUTPUT 3.1	DELIVERABLES / INDICATORS	Remarks
	2012	
3.1.1 Investigate the CNS/ATM applications available on the market and implemented successfully for the aeronautical fixed service.	Among the CNS/ATM applications researched there are the AMHS, AIDC, ATIS-D and ADS.	Continous
3.1.2 From the technical point of view, investigate their application in the REDDIG platform and select the corresponding applications.	The AMHS application has been investigated, and a package of technial specifications was elaborated, which the States of the Region have used for the study and implementation at national level. Also, the application of AIDC has been investigated, establishing agreements for its implementation. Other applications will continue to be investigated, as ATIS-D and ADS-B.	Activity aligned with the Air Navigation System Performance-Based Implementation Plan for the SAM Region

OUTPUT	2012	Remarks
OUTPUT 3.2	*Plan for the implementation of CNS/ATM applications approved.*	
CURRENT STATUS	Percentage of advance 100%	
PLANNED WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX Deviation: XX months CAUSE:	

OUTPUT 3.2	DELIVERABLES / INDICATORS	Remarks
	2012	
3.2.1 Coordinate with States and the GREPECAS the technical aspects required for the implementation of the CNS/ATM applications selected.	All applications implemented have been coordinated with States and the GREPECAS.	Continous
3.2.2 In coordination with the activities of projects RLA/98/003 and RLA/06/901, as corresponds, prepare plans to implant CNS/ATM applications that include, inter alia, the following:	Coordination with Project RLA/98/003 was completd, but coordinations with Project RLA/06/901 continue. Activity in process with RLA/06/901	Completed ith Project RLA/98/003
a) Interoperability of the following applications: AMHS; AIDC; radar, ADS or multilateration surveillance systems; others.		
b) General technical specifications for equipment and programming (hardware and software);		
c) System requirements and functionalities;		
d) Costs; and		
e) Coordination arrangements and responsible parties.		
3.2.3 Approve the plans developed under 3.2.2.	The plan developed with RLA/98/003 Project was completed, but arrangements with RLA/06/901 Project continue	Completed ith Project RLA/98/003
OUTPUT 3.3	*CNS/ATM applications for the fixed service implemented in the REDDIG platform.*	
CURRENT STATUS	Percentage of advance %	
PLANNED WORK PLAN	Starting date: 15/03/2010 Delivery date: 30/11/2010 (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: 15/03/2010 Delivery date: 30/11/2011 Deviation: 12 months CAUSE:	

OUTPUT 3.3	DELIVERABLES / INDICATORS	Remarks
	2011	
3.3.1 Based on plans approved as per 3.2.3 execute the following:	Activities for the implementation of the new CNS/ATM systems are included in the Air Navigation System Performance-Based Implementation Plan for the SAM Region	Completed, but requires revision in view of the introduction of ASBU (Aviation System Block Upgrades) methodology
a) Propose amendments to the project budget in order to develop action plans for the implementation of applications by the project.		
b) Approve the aforementioned amendments.		
c) Develop an action plan for the implementation of CNS/ATM applications in the REDDIG platform.		

OUTPUT	2012	Remarks
d) Approve the action plan.		
e) Hold meetings, workshops and seminars to support the implementation of CNS/ATM applications.		
OUTPUT 3.4	*MEVA II/REDDIG interconnection for the interoperability of applications in the CAR and SAM Regions.*	
CURRENT STATUS	**Percentage of advance 100%**	
PLANNED WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX Deviation: XX months CAUSE:	

OUTPUT 3.4	DELIVERABLES / INDICATORS	Remarks
	2012	
3.4.1 Provide, install, and test the equipment required to establish the interconnection.		Completed
3.4.2 Coordinate and supervise the tests and commissioning of the interconnection.		Completed
3.4.3 Establish communication with the REDDIG as required by the COCESNA MEVA II node by means of two ATS voice channels with Bogota and Caracas.		Completed
3.4.4 Configure the nodes involved with the functionalities required for the interconnection.		Completed
3.4.5 Provide operational and maintenance support to the COCESNA node interconnected to the REDDIG on a 24x7 basis.		Completed

IMMEDIATE OBJECTIVE 4	*Procurement, installation, commissioning and maintenance of the new digital network REDDIG II, in accordance with the technical*	
OUTPUT 4.1	*Final technical specifications of the REDDIG II and prior arrangements for the bidding established.*	
CURRENT STATUS	**Percentage of advance 100%**	
PLANNED WORK PLAN	Starting date: 01/01/2011 Delivery date: 30/04/2012 (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: 01/01/2011 Delivery date: 04/04/2012 Deviation: XX months CAUSE:	

OUTPUT 4.1	DELIVERABLES / INDICATORS	Remarks
	2012	
4.1.1 Establish the final technical specifications of the REDDIG II based on the specifications agreed by States participating in the project.		Completed
4.1.2 Determine the schedule of actions to be developed for the invitation to bid once established the final technical specifications.		Completed
4.1.3 Elaborate criteria for the evaluation of bids by setting a weight for the various parts that make up the technical specifications.	Bidding process started on 4 April 2012. The bid was uploaded in wwww.icao.int/procurement, under number 225011200	Completed
4.1.4 Coordinate with States the participation of their representatives in the evaluation of bids, assuming the costs involved with funds other than those of the project.	The evaluating group was composed by experts from Argentina, Brazil, Colombia, French Guiana (France), Paraguay, Peru and Venezuela. In addition, the REDDIG Adminstration participated (ICAO SAM Secretariat and REDDIG Administrator)	Completed

OUTPUT	2012	Remarks
OUTPUT 4.2	*Tender for the provision of the REDDIG II under the "turn-key" modality.*	
CURRENT STATUS	**Percentage of advance 90%**	
PLANNED WORK PLAN	Starting date: 04/04/2012 Delivery date: 30/08/2012 (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: 04/04/2012 Delivery date: 30/03/2013 Deviation: 07 months CAUSE:	

OUTPUT 4.2	DELIVERABLES / INDICATORS	Remarks
	2012	
4.2.1 Convene the international tender.	Bidding process started on 4 April 2012. The bid was uploaded in wwww.icao.int/procurement, under number 225011200	Completed
4.2.2 Respond to queries from potential bidders.		Completed
4.2.3 Coordinate the mandatory bidders visits to the nodes of the REDDIG.		Completed
4.2.4 Conduct mandatory visits to the nodes of the REDDIG.		Completed
4.2.5 Ensure that potential bidders have made visits to the nodes of the REDDIG.		Completed
4.2.6 Evaluate bids received.		Completed
4.2.7 Select the winning bid.		In process
4.2.8 Approve the winning bid.		In process
4.2.9 Negotiate and award the contract.		In process
4.2.10 Sign the contract.	The contract will be signed as soon as negotiation is concluded	In process
OUTPUT 4.3	*REDDIG II installed and commissioned.*	
CURRENT STATUS	**Percentage of advance %**	
PLANNED WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX (see the proposed work programme at beginning of year)	
CURRENT WORK PLAN	Starting date: XX/XX/XXXX Delivery date: XX/XX/XXXX Deviation: XX months CAUSE:	

OUTPUT 4.3	DELIVERABLES / INDICATORS	Remarks
	2012	
4.3.1 Execute the contract.	In process	Activity to be conducted in 2013 and 2014
4.3.2 Coordinate with States the designation of national personnel that will participate in the installation, adjustment and commissioning of the REDDIG II.		Activity to be conducted in 2013
4.3.3 Advise States in the execution of the contract with respect to:		Activity to be conducted in 2013 and 2014
a) Enabling the sites for the installation of VSAT equipment and other equipment associated with each REDDIG node,		Activity to be conducted in 2013 and 2014
b) Study of the radio electric impact of each node,		Activity to be conducted in 2013 and 2014
c) Factory testing.		Activity to be conducted in 2013 and 2014
d) Sending and reception of equipment,		Activity to be conducted in 2013 and 2014
e) Installation of equipment,		Activity to be conducted in 2013 and 2014
f) Tests on site,		Activity to be conducted in 2013 and 2014
g) Staffing and training requirements,		Activity to be conducted in 2013 and 2014
h) Guarantees,		Activity to be conducted in 2013 and 2014
i) Operation and maintenance of the REDDIG II during the installation phase,		Activity to be conducted in 2013 and 2014
j) Possibility to integrate the new network with other local systems,		Activity to be conducted in 2013 and 2014

OUTPUT	2012	Remarks
k) Plan for the transfer of services to the new system,		Activity to be conducted in 2013 and 2014
l) Operation of the MEVA II – REDDIG interconnection,		Activity to be conducted in 2013 and 2014
m) Preparation of the operational requisites of each node, for the local telecommunications authority,		Activity to be conducted in 2013 and 2014
n) Other relevant aspects.		Activity to be conducted in 2013 and 2014
4.3.4 Evaluate the manufacturer manuals concerning instruction, installation, operation and maintenance of the REDDIG II, providing, if necessary, appropriate comments to the contractor.		Activity to be conducted in 2013
4.3.5 Establish the stock of spare parts and test instruments in each node.		Completed
4.3.6 Prepare, in coordination with States, the maintenance programme of the REDDIG II, to begin during the trial period by the contractor.		
4.3.7 Coordinate with States the local staffing requirements for the operation and maintenance of the REDDIG II nodes based on the training programme included in the contract, recommending the level of preparation that should prove the personnel to be trained.		Activity to be conducted in 2013
4.3.8 Advise States, as required, on courses that should be taken by the designated personnel locally and abroad.		Activity to be conducted in 2013 and 2014
4.3.9 Nominate candidates for training programmes.		Activity to be conducted in 2013 and 2014
4.3.10 Carry out training programmes locally or abroad in accordance with the established programme.		Activity to be conducted in 2013 and 2014
4.3.11 Assess the results of the instruction received by the personnel.		Activity to be conducted in 2013 and 2014
4.3.12 Recommend the updating and refreshing programmes that will be necessary.		Continuous
4.3.13 Coordinate with States the participation of their personnel in factory tests, if deemed necessary, assuming the costs involved with funds other than those of the project.		Activity to be conducted in 2013
4.3.14 Supervise the installation of the REDDIG II nodes by the contractor.		Activity to be conducted in 2013 and 2014
4.3.15 Rent the space segment necessary.		Annual activity

OUTPUT	2012	Remarks
4.3.16 Coordinate the implementation of technical-operational tests for the provisional reception of each node.		Activity to be conducted in 2014
4.3.17 Coordinate the implementation of technical-operational tests for the provisional reception of REDDIG II.		Activity to be conducted in 2014
4.3.18 Coordinate with States the execution of the trial period of operation of the REDDIG II by the contractor.		Activity to be conducted in 2014
4.3.19 Participate in coordination with States in the final acceptance tests of the REDDIG II.		Activity to be conducted in 2014
4.3.20 Subscribe minutes of final acceptance of the entire system.		Activity to be conducted in 2014
4.3.21 Transfer the ownership titles of nodes to the authorities concerned.		Activity to be conducted in 2014
4.3.22 Start the operation and network management by the project.		Activity to be conducted in 2014
4.3.23 Assess the operation of the network during the warranty period.		Activity to be conducted in 2014
4.3.24 Contract the supply of the terrestrial communications service by the provider of communications services.		Activity to be conducted in 2014

2.   PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months												Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
Immediate objective 1				**Elaborate a proposal for the establishment of a multinational mechanism for the definitive administration of the network, considering the studies on this subject to be carried out by GREPECAS.**																			
Output 1.1	X		X	**Analysis of the possible multinational mechanisms to provide air navigation services in order to determine an arrangement for the administration of REDDIG.**																			
				1.1.1 Compile information from the existing multinational mechanism for the provision of air navigation services, such as: a) COCESNA b) Eurocontrol c) Iceland agreement d) Others																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				1.1.2 Prepare a comparative chart on the advantages and disadvantages of the possible multinational mechanisms in order to determine an arrangement on this matter for the administration of the network.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				1.1.3 Analyze the best alternatives for a definitive arrangement that allows the establishment of a multinational mechanism for the administration of the network.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
Output 1.2	X		X	**Proposal for the establishment of a multinational mechanism for the administration of the network elaborated.**																			
				1.2.1 Considering the CAR/SAM FASID guidance material, and the study of the previous output, prepare a multinational mechanism project for the administration of the network.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
Output 1.3	X		X	**Proposal on the definitive multinational mechanism for the administration of the network approved.**																				
				1.3.1 Project of proposal on the multinational mechanism presented to the interested parties requesting their comments.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
				1.3.2 Evaluate the comments received and consider them in the preparation of the final proposal.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
				1.3.3 Circulate the final proposal to the States requesting its approval.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
				1.3.4 Approval of the proposal on a multinational mechanism for the administration of the network.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
Output 1.4	X		X	**Arrangements to activate the multinational mechanism for the administration of the network prepared.**																				
				1.4.1 Based in the result of 1.3, coordinate with the States the necessary arrangements for the implementation of the approved mechanism.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
				1.4.2 Based in activity 1.4.1 prepare a working programme and determine the date of activation of the multinational mechanism.																				
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				TOTAL IMMEDIATE OBJECTIVE 1	0	0																	
Immediate objective 2				**Administration of the network under the conditions established by the Third Meeting of the Coordination Committee (RCC/3)**																			
Output 2.1	X		X	**Administration of the network under the direct management of the project for a two-year period.**																			
				2.1.1. Management the network during the transition period to the definitive multinational mechanism providing the following services to keep the network operating:				04/01/12	28/12/12		4											28	
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions	7,667																		
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**20,570**	**0**																	
				a) Assist the States and provide training for the correct operation of the network nodes				16/07/12	20/07/12								16-20						
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions	7,667																		
				-Subcontracts																			
				-Training	18,000																		
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**38,570**	**0**																	
				b) Supervise and control in an efficient manner the network operation, providing the appropriate assistance to the nodes for the identification and solution of operation problems that might arise.				01/01/12	31/12/12		1											31	
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions	7,667																		
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**20,570**	**0**																	
				c) Manage the network configuration keeping the system database updated with the corresponding information of the nodes bandwidth.				04/01/12	28/12/12		4											28	
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**12,903**	**0**																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months												Comments and problems faced
A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
			d) Prepare monthly reports on the activities of the network administration and the operating status of the system and circulate them to the States.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			e) Follow up the aspects of the guarantee contracted for the network.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			f) Verify periodically the network maintenance programmes, carrying out the relevant improvements and advise on the planning and implementation of such programmes.				04/01/12	28/12/12		4											28	
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions	7,667																		
			-Subcontracts																			
			-Training																			
			-Equipment	25,500																		
			-Miscellaneous	794																		
			Sub-total	**46,070**	**0**																	
			g) Propose the corresponding procedures to duly coordinate the NCCs' operation (Manaus/Ezeiza)																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			h) Based on the agreements reached at the RCC/3 on spare parts management policy, propose a process for management of spare parts for the network and how to obtain them so as to ensure a continuous support and the timely supply of these inputs.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			i) Approve the procedures proposed in g) and h).																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.: RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
				2.1.2 Coordinate adequately with States, other administrative aspects established for the operation of the REDDIG such as:																			
				a) Supplies provided by the States.				04/01/12	28/12/12		4											28	
				-Experts	10,230																		
				-Support personnel	1,877																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	793																		
				Sub-total	**12,900**	**0**																	
				b) Quantity and quality of the human resources to be provided by the States for the operation and maintenance of the network.				04/01/12	28/12/12		4											28	
				-Experts	10,230																		
				-Support personnel	1,877																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	793																		
				Sub-total	**12,900**	**0**																	
				c) Facilities, access to site, transportation/mobilization, personnel assistance, telecommunications means, etc																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
Output 2.2	X		X	**REDDIG budget approved.**																			
				2.2.1 Prepare and submit annually to the ICAO Regional Office in Lima a budget for the REDDIG administration for approval.				25/02/13	7/03/13			25	7										
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions	7,667																		
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**20,569**	**0**																	
				2.2.2 Prepare an annual report on the activities of the network management and the program of activities for the coming year, including budget estimates.				25/02/13	7/03/13			25	7										
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**12,902**	**0**																	

2.　PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:　　　RLA/03/901
Project title:　　　REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C								jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
					(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA														
				2.2.3 Prepare the annual budget of the REDDIG				25/02/13	7/03/13			25	7										
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**12,902**	**0**																	
				2.2.4 Convene a meeting of the REDDIG Coordination and Technical Committee in April of each year.				10/01/13	18/01/13		10-18												
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**12,902**	**0**																	
				2.2.5 Approve the annual budget of the network.				18/03/13	20/03/13				18-20										
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**12,902**	**0**																	
				2.2.6 Review and approve the annual activity report and the program of activities for next year, presented by the network administrator.				18/03/13	20/03/13				18-20										
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**12,902**	**0**																	
				2.2.7 Review and approve expenditures and accounts of the REDDIG administration.				18/03/13	20/03/13				18-20										
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**12,902**	**0**																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.: RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
Output 2.3	X		X	**Satellite segment leased**																			
				2.3.1 Based on Conclusion RCC 3/7 of the Third Meeting of the Coordination Committee, establish the most convenient arrangement for leasing the satellite segment from PanAmSat, subsequently designated as Intelsat.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				2.3.2 Approve the arrangement to be proposed to PanAmSat, subsequently designated as Intelsat.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				2.3.3 Collect the funds to lease the satellite segment and sign the contract.																			
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions																			
				-Subcontracts	467,528																		
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**479,637**	**0**																	
				TOTAL IMMEDIATE OBJECTIVE 2	**742,103**	**0**																	
Immediate objective 3				**In accordance with the requirements of the CAR/SAM FASID and of the Plan of Implementation of the Performance-based Air Navigation System for the SAM Region, plan the regional development of CNS/ATM applications and implement such applications in coordination with projects RLA/98/003 and RLA/06/901, as appropriate.**																			
Output 3.1	X		X	**CNS/ATM applications identified.**																			
				3.1.1 Investigate the CNS/ATM applications available on the market and implemented successfully for the aeronautical fixed service.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				3.1.2 Researching from the technical point of view their application in the REDDIG platform and select the correspondent applications.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	

2.   PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
Output 3.2	X		X	**Plan for the implementation of CNS/ATM applications approved.**																			
				3.2.1 Coordinate with States and the GREPECAS the technical aspects required for the implementation of the CNS/ATM applications selected.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				3.2.2 In coordination with the activities of projects RLA/98/003 and RLA/06/901, as corresponds, prepare plans to implant CNS/ATM applications that include, inter alia, the following:																			
				a) Interoperability of the following applications: AMHS; AIDC; radar, ADS or multilateration surveillance systems; others.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				b) General technical specifications for equipment and programming (hardware and software);																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				c) System requirements and functionalities;																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				d) Costs; and																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				e) Coordination arrangements and responsible parties.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	

2.   PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
				3.2.3 Approve the plans developed under 3.2.2.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
Output 3.3	X		X	**CNS/ATM applications for the fixed service implemented in the REDDIG platform**																				
				3.3.1 Based on plans approved as per 3.2.3 execute the following:																				
				a) Propose amendments to the project budget in order to develop action plans for the implementation of applications by the project.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
				b) Approve the aforementioned amendments.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
				c) Develop an action plan for the implementation of CNS/ATM applications in the REDDIG platform.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
				d) Approve the action plan.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		
				e) Hold meetings, workshops and seminars to support the implementation of CNS/ATM applications.																				
				-Experts																				
				-Support personnel																				
				-Missions																				
				-Subcontracts																				
				-Training																				
				-Equipment																				
				-Miscellaneous																				
				Sub-total	0	0																		

2.   PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
Output 3.4	X		X	**MEVA II/REDDIG interconnection for the interoperability of applications in the CAR and SAM Regions.**																			
				3.4.1 Provide, install, and test the equipment required to establish the interconnection.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				3.4.2 Coordinate and supervise the tests and commissioning of the interconnection.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				3.4.3 Establish communication with the REDDIG as required by the COCESNA MEVA II node by means of two ATS voice channels with Bogota and Caracas.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				3.4.4 Configure the nodes involved with the functionalities required for the interconnection.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				3.4.5 Provide operational and maintenance support to the COCESNA node interconnected to the REDDIG on a 24x7 basis.				01/01/12	31/12/12		1											31	
				-Experts	10,231																		
				-Support personnel	1,878																		
				-Missions	7,667																		
				-Subcontracts	59,160																		
				-Training																			
				-Equipment																			
				-Miscellaneous	794																		
				Sub-total	**79,729**	**0**																	
				TOTAL IMMEDIATE OBJECTIVE 3	**79,729**	**0**																	

2.   PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:   RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
Immediate objective 4				**Procurement, installation, commissioning and maintenance of the new digital network REDDIG II, in accordance with the technical specifications agreed by the REDDIG member States**																			
Output 4.1	X		X	**Final technical specifications of the REDDIG II and prior arrangements for the bidding established.**																			
				4.1.1 Establish the final technical specifications of the REDDIG II based on the specifications agreed by States participating in the project.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				4.1.2 Determine the schedule of actions to be developed for the invitation to bid once established the final technical specifications.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				4.1.3 Elaborate criteria for the evaluation of bids by setting a weight for the various parts that make up the technical specifications.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				4.1.4 Coordinate with States the participation of their representatives in the evaluation of bids, assuming the costs involved with funds other than those of the project.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
Output 4.2	X		X	**Tender for the provision of the REDDIG II under the "turn-key" modality.**																			
				4.2.1 Convene the international tender.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				4.2.2 Respond to queries from potential bidders.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.: RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

ICAO strategic objective A	B	C	Description of activities and corresponding inputs	Amount budgeted for the year US$ (1)	Amount disbursed in the year US$ (2)	% of compliance (2)/(1)	Starting date scheduled DD/MM/AA	Termination date scheduled DD/MM/AA	% of compliance to date	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	Comments and problems faced
			4.2.3 Coordinate the mandatory bidders visits to the nodes of the REDDIG.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	0	0																	
			4.2.4 Conduct mandatory visits to the nodes of the REDDIG.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	0	0																	
			4.2.5 Ensure that potential bidders have made visits to the nodes of the REDDIG.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	0	0																	
			4.2.6 Evaluate bids received.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	0	0																	
			4.2.7 Select the winning bid.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	0	0																	
			4.2.8 Approve the winning bid.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	0	0																	
			4.2.9 Negotiate and award the contract.				2/01/13	28/02/13		2	28											
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment	4,500,000																		
			-Miscellaneous	792																		
			Sub-total	4,512,900	0																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.: RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

ICAO strategic objective A	B	C	Description of activities and corresponding inputs	Amount budgeted for the year US$ (1)	Amount disbursed in the year US$ (2)	% of compliance (2)/(1)	Starting date scheduled DD/MM/AA	Termination date scheduled DD/MM/AA	% of compliance to date	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	Comments and problems faced
			4.2.10 Sign the contract.				4/03/13	8/03/13				4-8										
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	
Output 4.3 X		X	REDDIG II installed and commissioned.																		
			4.3.1 Execute the contract.				18/03/13	15/07/14				18									30	
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	
			4.3.2 Coordinate with States the designation of personnel to participate in the installation, adjustment and commissioning of REDDIG II.				12/08/13	16/08/13									12-16				
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts	20,500																		
			-Training	40,000																		
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**72,609**	**0**																	
			4.3.3 Advise States in the execution of the contract				18/03/13	30/12/13				18									30	
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	
			4.3.4 Evaluate the manufacturer manuals concerning instruction, installation, operation and maintenance of the REDDIG II, providing, if necessary, appropriate comments to the contractor.				24/06/13	6/09/13							24			6			
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	
			4.3.5 Establish the stock of spare parts and test instruments in each node.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			4.3.6 Prepare, in coordination with States, the maintenance programme of the REDDIG II, to begin during the trial period by the contractor.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	

2.　PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.:　　RLA/03/901
Project title:　　REDDIG Management System and Satellite Segment Administration

ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months												Comments and problems faced
A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
			4.3.7 Coordinate with States the local staffing requirements for the operation and maintenance of the REDDIG II nodes				16/09/13	18/10/13										16	18			
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	
			4.3.8 Advise States, as required, on courses that should be taken by the designated personnel locally and abroad																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			4.3.9 Nominate candidates for training programmes.				16/09/13	18/10/13										16	18			
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	
			4.3.10 Carry out training programmes locally or abroad in accordance with the established programme				2/12/13	30/12/13													2-30	
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	
			4.3.11 Assess the results of the instruction received by the personnel.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			4.3.12 Recommend the updating and refreshing programmes that will be necessary.																			
			-Experts																			
			-Support personnel																			
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**0**	**0**																	
			4.3.13 Coordinate with States the participation of their personnel in factory tests, if deemed necessary, assuming the costs involved.				2/12/13	30/12/13													2-30	
			-Experts	10,231																		
			-Support personnel	1,878																		
			-Missions																			
			-Subcontracts																			
			-Training																			
			-Equipment																			
			-Miscellaneous																			
			Sub-total	**12,109**	**0**																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.: RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
				4.3.14 Supervise the installation of the REDDIG II nodes by the contractor.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				4.3.15 Rent the space segment necessary.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				4.3.16 Coordinate the implementation of technical-operational tests for the provisional reception of each node.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				4.3.17 Coordinate the implementation of technical-operational tests for the provisional reception of REDDIG II.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				4.3.18 Coordinate with States the execution of the trial period of operation of the REDDIG II by the contractor.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				4.3.19 Participate in coordination with States in the final acceptance tests of the REDDIG II.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	
				4.3.20 Subscribe minutes of final acceptance of the entire system.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	0	0																	

2. PROJECT MONITORING AND CONTROL
2013 Work Plan

Project No.: RLA/03/901
Project title: REDDIG Management System and Satellite Segment Administration

	ICAO strategic objective			Description of activities and corresponding inputs	Amount budgeted for the year US$	Amount disbursed in the year US$	% of compliance	Starting date scheduled	Termination date scheduled	% of compliance to date	Months													Comments and problems faced
	A	B	C		(1)	(2)	(2)/(1)	DD/MM/AA	DD/MM/AA		jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec	
				4.3.21 Transfer the ownership titles of nodes to the authorities concerned.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				4.3.22 Start the operation and network management by the project.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				4.3.23 Assess the operation of the network during the warranty period.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				4.3.24 Contract the supply of the terrestrial communications service by the provider of communications services.																			
				-Experts																			
				-Support personnel																			
				-Missions																			
				-Subcontracts																			
				-Training																			
				-Equipment																			
				-Miscellaneous																			
				Sub-total	**0**	**0**																	
				TOTAL IMMEDIATE OBJECTIVE 4	**4,682,380**	**0**																	
				TOTAL OF PROJECT COSTS	**5,504,212**	**0**																	
				OVERHEAD	**296,225**	**0**																	
				TOTAL OF THE PROJECT	**5,800,437**	**0**																	

Project Nº: **RLA/03/901**
Title: **REDDIG Management System and Satellite Segment Administration**

3.   SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

Section I: **Evaluation of current project**
Section II: **Assessment of compliance with objectives**
Section III: **Evaluation of implementation and delivery of services by ICAO**
Sección IV: **Lessons learned**

RATING SCALE	
5.0	Exceptional results beyond project requirements
4.5	Exceeds requirements
4.0	Project objectives were achieved in all cases
3.5	Most of the project's objectives were achieved
3.0	Some quality results were achieved and implemented
2.5	Some quality results were achieved but are not implementable
2.0	Some results were achieved with little impact and quality
1.5	Below the expected results
1.0	Well below the expected results

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

I. EVALUATION OF CURRENT PROJECT

1.- Project objectives Do you think the project's objectives are set correctly according to the development priorities of your State in relation to the National Air Navigation Plan to serve the reality of civil aviation?	Rating
ARG: The project is fully consistent with the priorities set by the State.	4
BOL: No comments	4
BRA: The Brazilian administration considers that the Project objectives are alined with the national and regional air navigation plans	4
CHI: Project objectives were achieved in all cases	5
COL: - The Bogota/Panama channel continues without AMHS MEVA II/REDDIG implementation; it operates as an AFTN circuit, as with CENAMER, LIMA, MAIQUETIA, GUAYAQUIL. - Consideration should be given to the CAR/SAM RLA/03/902 BNSS/SBAS (SACCSA) regional project communication channels, and to the AMHS circuits	3.5
PAR: No comments	4
PER: They are appropriate.	4.5
SUR: Yes, the objectives are set correctly having high availability and therefore contributing to the increasing number of flight operations. However, the project does not take into account to make reservations to upgrade the systems. In case this should be implemented we would able to run our systems for several years more, instead of spending a big amount of money in only one big transaction.	4
URU: The priority given to the objectives since the beginning of the Project, has served for the consolidation of the national and regional air navigation plans	3.5
Average:	4.06
2.- Support at regional and global level Do you think that the project responds and supports your administration with the commitments of the Regional and Global Air Navigation Plans?	Rating
ARG: The project has generated a multiservice platform that undoubtedly allows us to meet our commitments.	4.5
BOL: Yes, since most of the objectives were met because they were part of the requirements of the SAM Region.	3.5
BRA: the Brazilian administration considers that the project takes into consideration the commitments and tasks of the Global Plan, reflected in the regional air navigation plan. The Project responds with the management of the infrastructure for the transmission of applications important for flow and air traffic safety.	4.5
CHI: Project objectives were achieved in all cases	5
COL: Partially; they should be considered upon, prior analysis and assessment of all channel communications requirements of the regional projects in developement, for example (SACCSA)	3.5
PAR: No comments	3.5
PER: Yes	4
SUR: Yes, for sure.	4
URU: The Project has strengthened and revalued the compliance of commitments within the global and regional air navigation plans	4
Average:	4.06

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

I. EVALUATION OF CURRENT PROJECT

3.- Comments of the State(s) Do you have any comments on the direction of the project?	Rating
ARG: We acknowledge the effort, willingness, and commitment of the project administration, which go beyond its duties.	4.5
BOL: The direction is the right one, taking into account current air navigation requirements.	4
BRA: The Brazilian administration is of the opinion that the Project leaders respond to States' expectations	4
CHI: It is going in the right direction, taking into account current and future air navigation requirements and technological develoments	5
COL: The design of a control and follow-up system for the implementatin of services and solucion to failures, when they present themselves, is recommended upon	3.5
PAR: No comments	3.5
PER: The current administration has worked efficiently.	4.5
SUR: Too much physical coordination meetings increases the cost for the management of the project. Teleconferences meetings should be implemented immediately.	3.5
URU: The Project could hardly have achieved the objectives desired, without the attention and great sense of responsibility demonstrated by the Project leaders	4.5
Average:	4.11

4.- Strategy and vision Do you consider that the project meets your institution's strategy and vision that has at long term?	Rating
ARG: We consider that it is consistent with the strategy and the vision, not only of the institution, but also of the region and the world as a whole.	4.5
BOL: It must also take into account the operational requirements of each State.	3.5
BRA: The Brazilian administration considers that the long-term strategy with regard to its State's implementations are coherent with the Project.	4
CHI: Yes, taking into account that it seeks to become an intelligent public service based on excellence and environmental responsibility, contributing to a safe, sustainable and efficient development of aviation in the country.	5
COL: We consider that the whole process is subject to improvement, to achieve efficacy, eficiency and efectivity.	3.5
PAR: No comments.	3.5
PER: -.-	4
SUR: Yes, the Project could be the road to the implementation of a SAM control.	4
URU: Yes, and is it in harmony with the vision of our institution.	4
Average:	4.00

5.- Project quality What opinion deserves you the content of this project to achieve the expected objectives?	Rating
ARG: There is no doubt that efforts are geared towards meeting the requirements and supporting the processes, through ongoing technological updates. This has enabled easy migration or replacement of the systems purchased by the State.	4.5
BOL: It meets the objective of having a Regional Aeronautical Telecommunication Network based on the CNS/ATM concept.	4
BRA: The content of the Project was updated last year and includes MEVA II and REDDIG networks interconnection detailes, purchasing and implementation of equipment by TCB. Wit this, the Brazilian administration considers that the content is adequate for the achievement of established objectives.	5
CHI: It is consistent with the expectation of a Regional Aeronautical Telecommunication Network, with backup and based on the CNS/ATM concept.	5
COL: The content of the Project is good, but requires complete follow-up to its implementation at the various services and stages; partially implemented circuits remain.	3.5
PAR: No comments.	3.5
PER: Regional integration of aeronautical services has been achieved with the highest level of safety and quality.	4.5
SUR: That it is a means to all the needs required to achieve a high quality system.	4.5
URU: the Project was always conceived to obtain a necessary end product, this in itself shows an excellent level of quality.	3.5
Average:	4.22

3.   SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

I.   EVALUATION OF CURRENT PROJECT

6- Project resources	
Do you consider that the financial, physical and human resources agreed to achieve the objectives established in the project document are appropriate?	**Rating**
ARG: Resources are adequate.	4
BOL: Financial, physical and human resources guarantee the achievement of objectives, with the technical support of the REDDIG administration.	4
BRA: Resources are adequate to what is expected of the project.	4.5
CHI: Yes	5
COL: We consider that they can be re-defined, to establish improvements	3.5
PAR: No comments.	4
PER: -.-	4.5
SUR: Yes, but the costs for system management keeps increasing every year.	3.5
URU: Yes, the resources have been adequate, in addition to having been well-managed.	3.5
Average:	4.06

7.- Project participants	
Do you consider that all parties that should be involved in the project are present? If it is not so, who should be involved?	**Rating**
ARG: All the parties that should be involved are participating in the project.	4
BOL: The technicians responsible for the maintenance of each node should also participate.	3
BRA: The Brazilian administration consideres that all interested parties are present in the Project: States with adjacent FIRs, the COCESNA node of the MEVA II network interconnection, the REDDIG Administration with the support of ICAO Lima	5
CHI: Yes	5
COL: We again suggest that a procedure directed towards the interior of the countries involved be established, in order to ensure participation and continuity of the technicians responsible for the various activities and Project coordination meetings, with the participation of ICAO and the rest of the Region participating States	4
PAR: No comments.	4
PER: All the required parties are involved.	4
SUR: Airport Operating Managers.	3.5
URU: All parties involved in the Project are appropriate and suitable.	3.5
Average:	4.00

8.- Project effectiveness	
Is the project effective in costs compared to similar programs or projects?	**Rating**
ARG: The project is definitely cost-effective compared to similar programmes or projects.	4
BOL: In the case of Bolivia, it is in accordance with its financial resources.	4
BRA: The Brazilian administration consideres that the Project cost-benefit analysis is favourable to States, as regards the implementation cost of a network through a telecommunications service provider	4.5
CHI: Yes	5
COL: It is recommended that an efficacy indicator be designed in the future, for quantification	4
PAR: No comments	4
PER: -.-	5
SUR: Not very effective for our organization with a low rate of flight oeprations and thus generating a small turnover	3
URU: The end product obtained with this Project was innovative and motivator for new projects such as REDDIG II, the success of the results excedes the costs.	4.5
Average:	4.22

3. **SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS**

I. **EVALUATION OF CURRENT PROJECT**

9.- Modification of project objectives What modifications to the objectives and scope of the project would you propose?	Rating
ARG: No comments	
BOL: No comments	
BRA: The Brazilian administation considers that the changes and updatings made to the Project in 2012 take unto consideration the Project needs.	
CHI: -.-	
COL: Include the technical solution and costs that participating Staes would have to pay for circuits such as SACCSA and in other required communications channels	
PAR: None.	
PER: It is not for us to say, since the modifications are being contemplated within REDDIG II.	
SUR: That the regular released upgrades must be implemented immediately to the network equipment and the availability of spare units must be guaranteed for a prolonged time of operation.	
URU: Hopes that the objectives and scope of the Project keep as professional and with the capacity of support to member States.	
Average:	
10.- Other information Please provide any other information that may support or clarify your perception of the current project scope.	Rating
ARG: No comments	
BOL: No comments	
BRA: States actively participating in the Project and in its development generate positive expectations to the members	
CHI: -.-	
COL: It is suggested that the Project coordination meetings can be conducted at various participating States' cities, determining a sequency and continuity in all States. This would favour a greater participation of the officials of the State host of the event.	
PAR: We are very satisfied with the results of the current Project.	
PER: -.-	
SUR: The service must be extended with facsimile and video conference within the network users connected on the administration platform.	
URU: We have participated in meetings, seminars, and in the installation of our node, for which we are fully committed to this Project	
Average:	

3.　SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

II.　ASSESSMENT OF OBJECTIVES COMPLIANCE

1.- Project objectives In terms of project management by ICAO, do you think that project objectives are being met?	Rating
ARG: No comments.	4
BOL: With ICAO's administration, project objectives were met.	4
BRA: The Brazilean administration considers ICAO's management of the Project of quality	4.5
CHI: Yes	5
COL: It has been complied with in general, even though pending is directly confronting in all States and interested parties in order to achieve	4
PAR: No comments.	3.5
PER: -.-	4
SUR: Yes, the Project objectives are met with the management by ICAO	4
URU: The ICAO Project management has been adequate and in accordance with expectations, achieving desired objectives.	4
Average:	4.11

2.- Project schedule Do you think that project objectives are being met or have been met promptly in accordance with your expectations?	Rating
ARG: The objectives have been met on a timely basis.	4.5
BOL: Yes, but objectives should be updated based on the new air navigaton concepts.	4
BRA: The objectives are being complied with in due time. With respect to REDDIG II implementation, it is important to emphasize that there is a delay in the signature of the contract with the bid winner, which can represent problems in the future	3
CHI: Yes	5
COL: they have been complied with, but not with the corresponding scheduling	3.5
PAR: No comments.	4
PER: -.-	4.5
SUR: Yes	4
URU: Yes, over all with regard to product operativity and availability, in addition to other collateral such as a betteer relationship between the technical areas	4
Average:	4.06

3.- Use of resources Do you consider that in meeting the objectives are being used, or have been used, resources efficiently?	Rating
ARG: Resources are being used efficiently.	4
BOL: Resources have been used in a timely manner.	3.5
BRA: The resources for the achievement of objectives are efficiently applied	4
CHI: Yes	4
COL: Within the measure of same and in accordance with corresponding reports and requirements in each State, we consider that yes	4
PAR: No comments.	4
PER: -.-	4.5
SUR: Yes	4
URU: Yes, there is an efficient and responsible use of resources	4
Average:	4.00

3.   SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

II.   ASSESSMENT OF OBJECTIVES COMPLIANCE

4.- Project cost Do you consider that the costs relating to compliance with the objectives are or have been appropriate?	Rating
ARG: Costs are appropriate.	4
BOL: Project costs are high for Bolivia in relation to its air traffic.	3.5
BRA: the Brazilian administratioin considers that to date, resources are adequate and represent the needs of the Project	4.5
CHI: Yes	5
COL: Without knowing in detail the costs and in accordance with reports provided, we consider that yes	4
PAR: No comments.	4
PER: -.-	4.5
SUR: The costs are high.	3
URU: They are adequate and States contributions have been equitative on the basis of the use of the satellite segment	4
Average:	4.06
5.- Major achievements **What are the main achievements of the project in relation to the expected results?**	Rating
ARG: The project has turned the network into a multiservice network, creating a setting that is favourable for ATS services.	4
BOL: The administration responds immediately to failures, and repair time is short.	4
BRA: The Brazilean administration considers that REDDIG availability is a determining factor for the success of the project	5
CHI: Effective and efficient achievement of goals and deadlines	5
COL: We consider that the main achievements have been the required interconnection of the circuits through the system at the various States, which has permitted decreasing operational costs due to the hiring of local communications providers, and with a greater efficiency in same	4
PAR: No comments.	4
PER: The network administration has enabled a high availability of aeronautical services comprised in the Project.	5
SUR: High availability perfromance and low time to repair.	4.5
URU: We obtained a reliable system with state of the art technology in 2003, which has permitted sustaining an efficient operativity during many years.	4
Average:	4.39
6.- Major problems and their resolution **What are the main problems affecting the achievement of the expected results and how should them be resolved?**	Rating
ARG: Although objectives are being met, continued efforts are needed to improve logistics on a case-by-case basis.	4
BOL: A big problem is the delay in the delivery and reception of parts and spare parts (local procedures).	3.5
BRA: The Brazilian administration consideres there are no problems that merit comments.	4
CHI: Basically, customs clearance logistics in the different States.	4
COL: In the experience obtained with the Bogota node, the immediate availability of spare parts, the circuit connectiviy and operational follow-up at each site can be improved establishing a statistical control onavailaiblity and continuity	3.5
PAR: No comments.	4
PER: The end of useful life of equipment is a factor, but availability was not affected because of measures taken by the Project.	4.5
SUR: There was no major problems identified.	4.5
URU: The management has been carried out in accordance with the importance of the Project, every problem has been solved.	3.5
Average:	3.94

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

II. ASSESSMENT OF OBJECTIVES COMPLIANCE

7.- Other comments **Please include other comments related to the compliance of project objectives.**	Rating
ARG: No comments.	
BOL: No comments	
BRA: (No comments)	
CHI: -.-	
COL:	
PAR: We believe Project objectives are fully met.	
PER: -.-	
SUR: No comments	
URU: We are in agreement with the development and performance of the Project during all these years.	
Average:	

8.- Risks **What new events that could happen, would probably affect the achievement of project outputs? What do you recommend to respond to these events?**	Rating
ARG: It should be noted that, based on experience, we should avoid relying on companies and seek personnel specialisation.	
BOL: Regarding the REDDIG II ground network, the potential participation of different last-mile service providers might result in network failure. It would be advisable to centralise management.	
BRA: The network will be replaced by a new technology and, besides that, adding a terrestrial MPLS network. New developments will demand more efforts for the maintainers and technicians of the REDDIG II Administration, who should have training at the level of the new infrastructure.	
CHI: Regarding REDDIG II and the ground network, the possible participation of different last mile service providers.	
COL: The factors that can mainly affect compliance can be States disconformity with its operativity, in its requirements, in its control, in the availability of the service or in hardware availability factors affecting their continuity. These circumstances must be supervised and evaluated by the administration	
PAR: Untimely payment of Project implementation costs.	
PER: Lack of spare parts (Memotec multiplexors) during the remainder of the Project may affect the results.	
SUR: The lack of spare parts can downgrade the outputs. Enough spare parts should be guaranteed in stock.	
URU: the only potential risk is equipment obsolescence, to be solved with the renewal of REDDIG II	
Average:	

9.- Other information **Please provide any other information that may support or clarify your assessment regarding compliance with the objectives of the project.**	Rating
ARG: -.-	
BOL: -.-	
BRA: It is important that the signature of the contract with the company bid winner occur, in order that there are no delays in the implementation of the	
CHI: -.-	
COL:	
PAR: No comments.	
PER: -.-	
SUR: No comments	
URU: We have participated in meetings, seminars and in the installation of our node, for which we are committed to this Project	
Average:	

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

III. EVALUATION OF PROJECT IMPLEMENTATION AND PROVISION OF SERVICES BY ICAO

1.- Decision making Do you think that the decision-making process within the project is appropriate?	Rating
ARG: It is appropriate.	4.5
BOL: It is appropriate; decisions are based on technical requirements.	4.5
BRA: The Brazilian administration considers it is totaly adequate, with the effective participation of all involved	5
CHI: Yes	5
COL: Yes, as long as Stte participation and concept are maintained	3.5
PAR: No comments.	3.5
PER: To this end, timely compliance with State financial, technical, or operational commitments is indispensable.	4.5
SUR: Yes	4
URU: Appropriate, as they result from all Project member States administrations concensus	4
Average:	4.28

2.- Products quality Do you think that the quality of products elaborated is appropriate?	Rating
ARG: It is appropriate.	4
BOL: It is appropriate, although there are problems with the delivery of spare parts which are rather independent of the administration.	4
BRA: The results and products generated reflect high quality.	4
CHI: Yes	5
COL: Yes, it is appropriate, although end product can be improved	3.5
PAR: No comments.	3.5
PER: Yes.	4
SUR: Services are good	4
URU: Yes, as they comply with international standards as regards quality and safety	4
Average:	4.00

3.- Orientation Do you think that there is compliance with guidance towards achieving the project outputs?	Rating
ARG: Project results are being achieved.	4
BOL: Yes, but more information must be provided on this matter.	3.5
BRA: The results obtained are supported in the complieance of the guidelines established with the RLA/03/901 concept	4.5
CHI: Yes	5
COL: Yes, good results have been obtained in accordance with the Projects orientation since its beginnings, in benefit of all REDDIG States	3.5
PAR: No comments.	3.5
PER: Yes.	4
SUR: Yes, almost all the guidance material emanated from the States has been implemented by ICAO.	4
URU: We believe it complies with the route planned, which leads to obtain desired results	3.5
Average:	3.94

4.- Organization and prioritization Do you think the organization and prioritization within the project is appropriate?	Rating
ARG: They are appropriate.	4.5
BOL: Yes, they are appropriate.	4
BRA: The organization and prioritization follow the needs of States and the operational requirements of the FASID.	4
CHI: Yes	5
COL: Yes, up to the moment, expectations have been complied with	3.5
PAR: No comments.	3.5
PER: Yes.	4
SUR: Yes, everything is very well organized, meetings are included at appropriate stages of the project to make on time decisions.	4
URU: Yes, because the criteria managed ensure a correct operation and availability of REDDIG equipment. The balance is positive.	4
Average:	4.06

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

III. EVALUATION OF PROJECT IMPLEMENTATION AND PROVISION OF SERVICES BY ICAO

5.- Change management Do you think that the management of change and degree of flexibility in managing the project are appropriate?	Rating
ARG: They are appropriate.	4.5
BOL: Yes, they are appropriate, because changes are based on technological improvements.	4.5
BRA: The Brazilian administration considers the degree of flexibility adopted as adequate to conduct necessary updatings in RLA/03/901, and also with regard to the management of these updatings. The recent updating carried out to the Project includes all needs to achieve the objectives	4.5
CHI: Yes	5
COL: Of course, since flexibility in the administration should exist in order to obtain benefits to all States	3.5
PAR: No comments.	3.5
PER: Flexibility is reflected in the ability to review the Project document.	4.5
SUR: Everything is able to be improved, however, it should be tested before and without disrupting the services.	4
URU: The management changes has been appropriate and has had the adequate flexibility, which has served to solve unforeseen situations successfully	4
Average:	4.22
6.- Service to the State Do you think that the service provided to your State is appropriate?	Rating
ARG: It is appropriate.	4
BOL: It is appropriate in the technological aspect, but there are logistic problems.	3.5
BRA: Brazil considers the service totally adequate to the needs of its three national nodes	5
CHI: Yes	5
COL: To date it has been good; nevertheless, it can be improved with the implementation of the new network	3.5
PAR: No comments.	4
PER: Yes.	4.5
SUR: Yes, the QoS of our Communications has increased since REDDIG was deployed in service.	4
URU: The Project strengthens the air navigation services, the aviation security and the aeronautical communications; therefore, it is adequate	4
Average:	4.17
7.- Communication Do you think that the level of communication within and outside the project is adequate?	Rating
ARG: No comments.	4.5
BOL: E-mail should also be used for communications, since letters that arrive to our State on a timely basis reach the La Paz REDDIG node somewhat late.	3.5
BRA: Brazil considers the interaccion between the people responsible for the Lima Office tecnical cooperation, TCB and those in charge of participating in the Project to be satisfactory	4
CHI: Yes	5
COL: I consider that there has been a lack, most of all to that regarding some technical oeprational aspects, since all corresponding parties or staff or people directly responsible within the States have not been involved. This should be better controlled by the organization, both internally as externally	3
PAR: No comments.	3.5
PER: -.-	4
SUR: Yes	4
URU: It is adequate. To this end, the holding of REDDIG technical-operational meetings or seminars could be examined upon, which contribute towards a fluid exchange of knowledge	3.5
Average:	3.89

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

III. EVALUATION OF PROJECT IMPLEMENTATION AND PROVISION OF SERVICES BY ICAO

8.- Conflicts Do you believe that conflict management is adequate?	Rating
ARG: It is appropriate.	4.5
BOL: No comments	4
BRA: Brazil considers that all possible conflicts are solved through the communications system adopted and the Project coordination meetings	4.5
CHI: Yes	5
COL: No conflicts within the organization have been known to us	3.5
PAR: No comments.	4
PER: -.-	4.5
SUR: Yes, the QoS of our communications has increased since REDDIG was deployed in service.	4
URU: To date, conflict management as regards local and between member States technical problems has been excellent	4
Average:	4.22

9.- Use of resources Do you think that project resources are being used efficiently to produce the expected results?	Rating
ARG: Yes, resources are being used efficiently.	5
BOL: The administration provides the appropriate services to maintain REDDIG services in operation.	3.5
BRA: Brazil considers the use of approved resources are used adequately	4
CHI: Yes	5
COL: Yes, the have been used adequately, moreover if we consider the costs that technology demands in this State interconnectivity	3.5
PAR: No comments.	3.5
PER: -.-	4
SUR: Yes, we are receiving appropiate services from management unit to keep up and running the REDDIG services, however, it is highly appreciated if a revision of costs may result in price reduction but without sacrificing quality.	4
URU: The use of financial and material resources is adequate and transparent	4
Average:	4.06

10.- Relevance of mechanisms Do you think that management mechanisms of the project are relevant?	Rating
ARG: Yes, they are relevant.	4.5
BOL: Yes, they are relevant because they seek technological improvements.	4
BRA: Brazil considers the Project management mechanisms to be completely pertinent	5
CHI: Yes	5
COL: They should be adequated and major follow-up and control mechanisms should be established	3.5
PAR: No comments.	4
PER: They are relevant.	4.5
SUR: Yes	4
URU: The management mechanisms are correct	3.5
Average:	4.22

11.- Opportunity to work plans On the basis of its work plan, how would you rate the degree of opportunity of the project as regards the achievement of products, outputs and delivery of inputs?	Rating
ARG: This project allows members of the Region to participate actively and implement proposals or ideas to improve services, thanks to the support of all the States.	4.5
BOL: No comments	4
BRA: The work plan is well adopted as regards adequacy, opportunity and obtention of products, results and, mainly, supplies delivery	4.5
CHI: Appropriate	5
COL: To date, it has complied with the expectations of the correspnding services, but can be improved	3.5
PAR: No comments.	3.5
PER: -.-	4.5
SUR: Rate is shown into the appropriate field	4.5
URU: Within the expected, the Project could be taken advantage of to develop and consolidate new provisions related with REDDG	3.5
Average:	4.17

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

III. EVALUATION OF PROJECT IMPLEMENTATION AND PROVISION OF SERVICES BY ICAO

12.- Orientation Do you consider that the activities and products developed through the project are in line with ICAO directives, regional offices and air navigation plans?	Rating
ARG: Yes, they are in line with ICAO guidelines.	4
BOL: The results obtained are in line with national and regional objectives.	4.5
BRA: Brazil considers the obtention of results is aligned with national and regional objectives.	4.5
CHI: Yes	5
COL: Up to the moment and in accordance with the services expectations, costs and interconnectivity have been in accordance with requirements	3.5
PAR: No comments.	4
PER: -.-	4
SUR: Yes	4
URU: The strategical guidelines framed since the start of the project are complied with	4
Average:	4.17
13.- Other information Please provide any other information that may support or clarify your assessment on products and services provided through the project.	Rating
ARG: No comments.	
BOL: It would be advisable to have timetables, technical manuals, training manuals and others for proper follow-up during REDDIG II project implementation.	
BRA: Brazil considers that REDDIG management through a technical cooperation project, where there is no lucrative objective, is a decisive factor for the success of a SAM aeronautical fixed service support network infrastructure	
CHI: It should be noted that yearly budgets in Chile are prepared in April of the year before the project is to be financed, so investments or payments must be clearly defined by that time for their disbursement on the following year.	
COL: ---	
PAR: No comments.	
PER: Timely service concerning the spare parts required for continued operation.	
SUR: The provided services were very good	
URU: We have participated in meetings, seminars and in the installation of our node, for which we are committed to the Project	
Average:	

3.   SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

IV. LESSONS LEARNED

1.- Positive lessons learned from the project.   **Provide a brief description of the positive lessons learned from project implementation.**
ARG: The possibility of working with personnel from other States and achieving more satisfactory integration results. The possibility of exchanging experiences to resolve service issues between States.
BOL: -.-
BRA: A technical cooperation project is important for REDDIG management. The hiring of experts for the development of certain products, has provided quality and cost savings to the project participants, giving greater agility to the decisions or expected results
CHI: - Possibility of active participation by State representatives   - Proper scheduling of activities   - Effective work at meetings and when making decisions.
COL: Invaluable experience and knowledge. Benefits in the provision of the varous communications services through MEVAII/REDDIG. Experience with the cultural exchange with the rest of the States of the Region. Team work with the participation of Sttes and ICAO, to achieve CAR/SAM objectives.
PAR: Project results encourage us to follow the same model for our own internal projects.
PER: Success in attaining regional goals through joint effort (synergy). Experience gained in the implementation and management of an international aeronautical satellite network. Relevant training and updating of CNS personnel.
SUR: There is opportunity to work in good cooperation with the regional states in order to establish a Regional Air Traffic Control Zone.
URU: This international Project has demonstrated that team work can be conducted honestly, ethically, with respect and professionalism
2.- Opportunities for improvement.   **Provide a brief description of the improvement opportunities identified during project implementation.**
ARG: No comments.
BOL: -.-
BRA: Up to the present moment, we do not highlight any negative aspect that can be indicated in this survey
CHI: Improvement of logistics (customs clearance of spare parts and/or equipment), with specialised personnel, a procedure or training on the subject.

3. SURVEY ON MANAGEMENT AND OUTPUTS INDICATORS

IV. LESSONS LEARNED

COL: Design a letter on the process within a quality management system, at least with efficacy, efficiency and effectiviy indicators
PAR: From our point of view, this project is being implemented in an effective and transparent manner, so we believe it is being properly executed.
PER: -.-
SUR: With the meeting of the representatives of the regional states a platform is created to exchange ideas and information in benefit of the regional air traffic.
URU: Professional relationships become better and closer between the technical areas, increasing REDDIG efficiency and efficacy
3.- Strategy to implement the improvement opportunities identified. **Provide a brief description of the strategy that you would propose to implement the improvement opportunities identified.**
ARG: No comments.
BOL: -.-
BRA: As per item 2, no preventive measures are visualized
CHI: - A seminar for analysing the opportunities for improvement, with the participation of all States. - Feasibility study of their implementation. - Creation of implementation working groups.
COL: Redisign the strategy with the participation of Staes and ICAO, document it, make control and follow-up and implement improvements
PAR: -.-
PER: -.-
SUR: -.-
URU: Establish technical-operational meetings, seminars and courses, for the exchange of experiences and work in close collaboration

Agenda Item 8: **Other matters**

New RLA/03/901 Project website

8.1 The Meeting was informed on the new website designed in order that REDDIG member States can find in one single page all information pertaining to Project RLA/03/901 - *REDDIG Management and Satellite Segment Administration System.* The site's url is: http://www1.lima.icao.int/reddig/.

8.2 The page contains information on REDDIG Administration, CNS/ATM applications and information on REDDIG II. In addition, it includes information on meetings, seminars and courses related with the objectives of the Project.

8.3 The Meeting considered that the administrative information pertaining to the Project, the REDDIG II bidding process and other information that the REDDIG Administration deemed should not be open to all public, should be accessed through a password. The person desiring a password, should request it from the REDDIG Administration for their approval.

8.4 The Meeting noted that all information relative to Project RLA/03/901 had not been uploaded to the site. All REDDIG member States were requested to present their comments in this regard no later than 15 May 2013, formulating the following Conclusion:

Conclusion RCC/16-6 **New Project RLA/03/901 website**

That the REDDIG member States examine project RLA/03/901 - *REDDIG Management and Satellite Segment Administration System* site http://www1.lima.icao.int/reddig/ and contents, and submit their comments in this regard to the ICAO SAM Regional Office no later than 15 May 2013.

Interference of the International Mobile Telecommunications (IMT) System in the Fixed Satellite Service (FSS) band

8.5 The Meeting was informed that the REDDIG node in Lima, Peru, had been interfered with in September 2012 by an IMT system, the WIMAX (broadband internet wireless transmission service transmitting in the 2.3 to 3.5 Ghz band). The interfering signal operated at the 3.521 GHz frequency and belongs to the mobile telephone company NEXTEL.

8.6 The interference kept the Lima node out of service for five days, the services during that period were offered through the ISDN backup ground network. The interference was solved with the installation of a filter in the REDDIG node.

8.7 Even though the interfering signal had been separated more than 200 Mhz from REDDIG (3789496, 3791248, 3792562 Hz), the closeness to the WIMAX station (200 metres from the REDDIG node) caused the interference. This interference could have been avoided if the procedures for installations at zones adjacent to airports had been followed, and if there had been coordination among the spectrum administrator, the mobile telecommunications company and the aeronautical service provider.

8.8 In this respect, the Meeting deemed it convenient that REDDIG member States take note of this interference case and that they inform their local radio frequency spectrum administration of this, to avoid possible interferences at other REDDIG nodes.

8.9   The Meeting also considered important that the staff in charge of REDDIG nodes maintenance be alert to any interference to the REDDIG node, and that they immediately inform the case to the REDDIG Administrator and the national radio frequency spectrum administrator.

8.10   In addition, the Meeting took note that the mobile telecommunications companies are requiring greater band width to support their increasing services requirements, and that these requirements could augment their use in the band assigned as primary character to the FSS. Therefore, the aeronautical administrations should coordinate with the spectrum administration entities on the importance of protecting the FSS band, particularly the satellite communications networks used to support aeronautical services, and thus avoid possible interferences. In this regard, the Meeting formulated the following Conclusion:

Conclusion RCC/16-7   REDDIG interference with IMT system

That REDDIG member States register and document any interferences at the REDDIG nodes [Fixed Satellite Service (FSS)] with International Mobile Telecommunications (IMT) system and inform of them to the local entity administrating the radio frequency spectrum, as well as the REDDIG Administration, and coordinate with the local radio frequency spectrum administration the protection of the 3.4 to 4.2 Ghz band to ensure continuous availability of the aeronautical services at this frequency band.