



REDDIG RCC/5

INTERNATIONAL CIVIL AVIATION ORGANIZATION

South American Regional Office

FIFTH MEETING OF THE COORDINATION COMMITTEE OF

REGIONAL PROJECT RLA/98/019

IMPLEMENTATION OF SOUTH AMERICAN DIGITAL NETWORK REDDIG

REPORT

(Lima, Peru, 26 – 28 May 2003)

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HISTORY OF THE MEETING

1. PLACE AND DURATION OF THE MEETING

The Fifth Meeting of the Coordination Committee of regional project RLA/98/019, Implementation of the South American Digital Network REDDIG, was carried out in the ICAO South American Regional Office, in Lima, Peru, from 26 to 28 May 2003.

2. OPENING

Mr. Carlos Stehli, Deputy Regional Director a.i. of the ICAO South American Regional Office, welcome the participants, pointing out the importance of the issues to be treated. Following, Mr. Guido Niño de Guzmán, General Manager of CORPAC, Corporación Peruana de Aeropuertos y Aviación Comercial S.A., welcome the participants in the name of the State of Peru, declaring the meeting as inaugurated.

3. WORKING LANGUAGES

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

4. PARTICIPANTS AND ORGANIZATION

The meeting counted with the assistance of 9 States (Argentina, Bolivia, Brazil, Chile, Ecuador, France, Guyana, Peru and Uruguay), making a total of 23 participants, including ICAO officers. The list of participants is being presented in pages iii-1 to iii-4.

Mr. Walter Amaro, Chief of Operations of The Americas, Technical Cooperation Bureau, ICAO Montreal, acted as moderator, assisted by Mr. Carlos Stehli, Deputy Regional Director a.i. of the ICAO South American Regional Office, Mr. Oscar Quesada-Carboni, Technical Cooperation Regional Coordinator, Mr. Onofrio Smarrelli, Regional Officer of Communications, Navigation and Surveillance -- CNS—of the ICAO South American Regional Office, and Mr. Tomas Sheen, international expert in aeronautical communications of project RLA/98/019.

5. **LIST OF CONCLUSIONS OF THE RCC/5 MEETING**

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Agenda Item 1: Revision of the report of the Fourth Meeting of the Coordination Committee of the REDDIG

1.1 Under this agenda item, the meeting went through the results of the fourth meeting of the Coordination Committee (RCC/4), carried out in Lima, Peru, from 30 to 31 January 2003, with the participation of nine States of the SAM region. In this meeting, the state of implementation of conclusions formulated during RCC/3 meeting, activities carried out, financial situation of the project and future programme activities were analysed.

1.2 In **Appendix A** to this agenda item, the result of the analysis of formulated conclusions is being presented.

1.3 Likewise, in the RCC/4 the following project activities were analysed:

- Installation of ODU and IDU equipment (outdoor and indoor equipment) and the time used for the installation of each node, which was six days.
- Execution of RF emission and reception tests with PanAmSat for each node.
- Results of the two courses carried out in Bogotá, one organized by the Aeronautical Administration of Colombia and, the other, by the contractor as part of the REDDIG project.
- Pending issues from part of the States in order to guarantee success in the execution of the provisional REDDIG nodes acceptance tests (PSAT).
- List of pending issues by State, including tasks to be carried out and corresponding deadlines for their implementation.
- Situation of cost-sharing contributions, as well as the last budget revision.
- ICAO negotiations with PanAmSat for the rental of the satellite segment, and information that the rental of the same would only be possible if first-year contributions were deposited up to July 2003.

1.4 Likewise, the meeting considered the need to elaborate the procedures to be applied for the operation and maintenance of the REDDIG, such as specified in activity 1.3.3 of Objective No. 1 of project RLA/98/019, which would be carried out by the expert hired by the project.

1.5 Last, the meeting analysed the new technical cooperation project RLA/03/901, making several amendments to the document and requesting ICAO to circulate it to the States for approval.

SITUATION OF CONCLUSIONS FORMULATED DURING RCC/3 MEETING

Conclusion	Title	Situation	Comments
RCC3/1	ICAO technical cooperation project for the management of the REDDIG.	Concluded	RLA/03/901 project document was prepared, which considers as objectives: Creation of a multi-national mechanism for the management of the REDDIG. CNS Applications.
RCC3/2	Definite multinational agreement	Concluded	All States participating in REDDIG, with the exception of Colombia, have endorsed project RLA/03/901.
RCC3/3	Designation of the REDDIG management nodes	Concluded	States participating in REDDIG have approved the designation of the NCCs for a two-year period.
RCC3/4	Alternative solutions for the implementation of the NCC in Manaus	In force	In process of analysis by ICAO and SEEE.
RCC3/5	Budgetary provision for REDDIG spare parts.	Concluded	Considered in project RLA/03/901
RCC3/6	Distribution scheme of shared costs	Concluded	Considered in project RLA/03/901
RCC3/7	States contributions to cover payment of the satellite segment	Concluded	Considered in project RLA/03/901
RCC3/8	CNS/ATM applications development	Concluded	Considered in project RLA/03/901

CONCLUSIONS FORMULATED DURING THE RCC/4 MEETING

Conclusion	Title	Content	Situation
RCC4/1	Pending issues to be solved by the States to guarantee the success of PSATs	That: <ul style="list-style-type: none"> a) ICAO, in accordance with the contract SEEE/ICAO, coordinate with the contractor the resolutions of all pending matters before proceeding with PSAT; and b) the States, as soon as possible and not later than the target dates indicated in the List by States attached as Appendix A to this part of the report, resolve the pending matters so as to facilitate the contractor's work in connecting the REDDIG node to the CAAs user terminal equipment so as to warranty the success of the PSAT. 	In Force
RCC4/2	Detailed breakdown of expenditures at the moment of project finalization	That ICAO, when RLA/98/019 project is concluded, present a detailed breakdown of expenditures incurred by the project to be included in the Project Final Report.	In Force
RCC4/3	Technical Cooperation Regional Project RLA/03/901 – Approval of the project document	That: <ul style="list-style-type: none"> a) ICAO, considering the comments formulated by the administrations during the RCC/4 Meeting, review the project document for the new technical cooperation regional project RLA/03/901, and circulate the revised version of the same for comments and approval of the States; and b) the States provide their comments to ICAO no later than 7 March 2003. 	Concluded

Agenda Item 2: Report on activities carried out up to date since the last meeting of the Coordination Committee of project RLA/98/019

2.1 Under this agenda item, the meeting was informed about the principal activities carried out by the project since the last coordination meeting (RCC/4), which took place on 30 – 31 January 2003, up to date.

2.2 The principal activities carried out during this period were the provisional site acceptance tests (PSAT) in all the REDDIG nodes, as well as the coordination and execution of the NAT tests.

PSAT tests

2.3 The PSAT tests were initiated the last week of January and were finalised at the end of March 2003. The contractor, jointly with ICAO through the project expert, and the counterpart of the Aeronautical Administrations, carried out these tests. Results of the same were registered in the document prepared for that purpose.

2.4 The meeting could take due note that, as result of the PSAT, certain specific actions had to be taken care by the contractor and by the Aeronautical Administrations in order to finalise the effective implementation of the REDDIG.

2.5 The meeting took note of the actions taken by the contractor in order to correct the problems that could be noticed in PSAT, such as adjustments, repositions and repairs. These works lasted up to the initiation of the network acceptance tests (NAT).

2.6 Also, the meeting took note of the pending actions from part of the Sates, such as:

- a) CAA equipment configuration in order to operate ATSD, ATSA and ADM services through the REDDIG
- b) Coordination and configuration of the AFTN circuits of the AFTN switching system and its connection to the REDDIG.
- c) Establishment of the circuits of the backup network and the network for recuperation in case of disasters.
- d) Connections of the GNSS augmentation in the sites foreseen in the network.

2.7 In the same way, the meeting was informed about the verification of the geographic redundancy between the NCCs of Lima and Buenos Aires, which although they could not be successfully carried out during the network acceptance tests (NAT), thanks to the special deference of the Administrations of Argentina and Peru, it was possible to establish the link between both sites, and, in this way, the use of this function could be verified.

Coordination and execution of the NAT tests

2.8 The meeting took note of the results of the NAT tests, which were executed from 21 April to 23 May 2003. During these tests, it could be verified that the Aeronautical Administrations and the contractor could solve many of the pending problems from PSATs.

2.9 Likewise, the meeting was informed about the result of the geographic redundancy verification between the NCCs of Lima and Ezeiza, as well as the verification of the automatic management transference.

2.10 Other important activity executed during the NAT was the optimisation of the use of the satellite segment.

Agenda Item 3: Financial situation of the project

3.1 Under this agenda item, the Coordination Committee was informed on the cost-sharing contributions deposited by participants States, shown as **Appendix A** of the agenda item report, highlighting that all States with the exception of Bolivia had deposited the total amount of their contributions.

3.2 The Bolivian delegate informed the meeting that his State would deposit USD 14,300.00 on 20 June 2003, and USD 10,000.00 on 30 June 2003, hence covering its cost-sharing contribution to project RLA/98/019 SAM REDDIG.

3.3 On the other hand, the Chief of Operations of the Americas of the Technical Cooperation Bureau confirmed to the meeting that the UNDP credited interest earned by the project funds during year 2001 for an amount of USD 38,227.00 and still interest earned on years 2002 and 2003 to be credited.

3.4 Likewise, the meeting after a long debate decided that remaining project funds should be used giving priority to cover the cost of fellowships for the training course to be offered by the project expert and that, meanwhile States make the deposits of their costs-sharing contributions to the new project, these funds could be used temporarily by project RLA/03/901 to allow the signing of the contract with PanAmSat and to guarantee the payment of space satellite segment for the first year. In this sense the meeting established the following conclusion:

CONCLUSION RCC/5-1 Use of the remaining funds of project RLA /98/019

That,

- a) remaining funds of project RLA/98/019 be used to cover the cost of fellowships for the training courses programmed under the project, and meanwhile States make the deposits of their costs-sharing contributions to the new project RLA/03/901, ICAO could temporarily make use of the remaining funds of project RLA/98/019 to guarantee the signing of the contract with PanAmSat for the lease of the space satellite segment.
- b) remaining funds, after the equal distribution of fellowships for each REDDIG node, will be transferred to project RLA/03/901.

3.5 Likewise, the Coordination Committee requested that, independently from the detailed breakdown of expenditures that ICAO should present when finalising the project (Conclusion RCC 4/2), ICAO present in each coordination meeting a balance of the financial situation of the project in order to facilitate decision-making that could affect in some way the project budget.

STATES COST-SHARING CONTRIBUTIONS

State	Programmed contributions in thousand USD	Received contributions in thousand USD	Pending contributions in thousand USD
Argentina	336,8	336,8	0
Bolivia	336,8	312,5	24,3
Brazil	1,054,5	1054,5	0
Chile	336,8	336,8	0
Colombia	336,8	336,8	0
Ecuador	336,8	336,8	0
France	336,8	336,8	0
Guyana	336,8	336,8	0
Paraguay	336,8	336,8	0
Peru	336,8	336,8	0
Surinam	336,8	336,8	0
Uruguay	336,8	336,8	0
Venezuela	336,8	336,8	0
Total	5,096,5	5,071,8	24,7
Percentage	100 %	99.52 %	0.48%

Agenda Item 4: Review of the programme of activities for year 2003

4.1 Under this agenda item, the meeting was informed of the activities to be developed on the following months of the project, such as:

- Organization of NCC (*in process*)
- Training
- Assistance and supervision of network operation (*continuous activity*)
- Billing procedures preparation
- Updating of manuals for the operation of the REDDIG
- Analysis of network upgrades and improvements

Training

4.2 The project expert will develop the content of training courses to be imparted to technical personnel of the CAAs. This training will be oriented towards the application of operational and maintenance procedures of the REDDIG and will be hands-on-training for a minimum of three groups of no more than twelve trainees each. This training will be held at Ezeiza NCC, with two weeks duration each course. Also the training should focus on practices and particular aspects of the participants' local nodes and of the NCCs. A tentative date for the beginning of these courses is the first week of July 2003 (30 June 2003).

Billing procedures preparation

4.3 This issue will be studied by the project on the next three months, after the start up of the network. The detailed billing mechanism will be presented to the REDDIG Coordination Committee based on the information provided by the REDDIG System.

Activities and schedule for the REDDIG start up

4.4 The meeting established the pending activities and schedule for the start up of the REDDIG as shown in **Appendix A** of this agenda item report. The meeting admitted that this issue is a continuation of pending tasks from part of the States, being carried out jointly with the contractor since the PSAT.

4.5 In this regard, the meeting agreed to formulate the following Conclusion:

CONCLUSION RCC 5/2 Activities and schedule for the REDDIG start-up

That the States, in order to finalise the activities for the REDDIG start-up, solve, if they have not yet done it, the pending issues presented in **Appendix A** to this part of the report, regarding the connection of the user terminal equipment to the REDDIG and, in coordination with the project, make all the necessary efforts to comply starting 2 June 2003 with the schedule of activities indicated in **Appendix A**.

Backup network

4.6 During the meeting it was informed that, from all the REDDIG nodes, only six had installed ISDN lines as part of the backup network (Manaus, Curitiba, Recife, Cayenne, Lima and Bogotá). Likewise it was informed that Uruguay, Chile and Argentina could implement these lines on the REDDIG node with previous study and co ordinations.

4.7 On those States where an ISDN communication supplier is not available, such as Guyana, Surinam, Ecuador, Paraguay, Venezuela, Bolivia and other States, they would have to establish as an alternative solution digital dedicated circuits, preferably ground circuits (Technical Specifications Document, Section 3.1.6.10).

4.8 The meeting was informed that, as an alternative to dedicated circuits, another solution based on the use of a VPN network could be found. The cost of the service of this configuration will be lower than the digital dedicated point-to-point links. In accordance with the communication services suppliers, referential monthly costs will be in the order of **USD 1,000.00**. During the meeting some quotations were made available.

4.9 Regarding the backup network, an ISDN network with States having this option would be a solution, and the rest would need to implement dedicated digital circuits between pairs of REDDIG nodes, or a VPN network mounted on digital platforms of 64K.

4.10 The meeting was informed that, until the backup network is implemented for the REDDIG, the current circuits that cover the ATS service should be maintained.

4.11 Regarding the REDDIG backup network configuration, some of which are being presented in **Appendix B** to this part of the report, the meeting agreed to formulate the following Conclusion:

CONCLUSION RCC 5/3 Implementation of the Backup network

That the States, in coordination with the project and considering the documentation provided in this Report, establish, as an urgent issue, the definite configuration of the REDDIG backup network and take it into practice within the times indicated in **Appendix A**.

REDDIG Operation Manual

4.12 Also, under this agenda item, the project expert presented to the meeting a draft of the Operation Manual (**Appendix C**) for the SAM REDDIG, containing the guidelines and procedures that should be followed by the REDDIG nodes for adequate coordination to carry out the operation and maintenance of the network.

4.13 The meeting, after studying the Manual, agreed that it represented an initial step for the preparation of the final Manual. Likewise, the dynamic characteristic of this manual was recognized, admitting the need to review it and update it periodically, having the feedback of practical experience.

4.14 Therefore, the meeting considered necessary to establish and *ad-hoc* committee conformed by Argentina, Brazil, Chile, France and Peru, which should work with the project expert to review the material presented in **Appendix C**, and to move towards a more consolidated version to be used for the start-up of the network. The revised material, validated by the States and the project should be presented to the next Coordination Committee meeting. Likewise, the *ad-hoc* group should develop a normalised procedure to be able to establish the service quality conditions to be provided in each REDDIG node for the end-to-end communications service supply.

4.5 In this regard, the meeting formulated the following Conclusion:

CONCLUSION RCC 5/4 REDDIG Operation Manual

That the *ad-hoc* task-force, conformed by Argentina, Brazil, Chile, France and Peru, work with the expert of the project to prepare a first revision of the REDDIG Operation Manual, to be used in the date of initiation of the REDDIG start-up and that it include orientation material about normalised procedures of service quality for each REDDIG node.

**PROGRAMA DE ACTIVIDADES PARA LA PUESTA EN MARCHA DE LA
REDDIG /**

PROGRAMME OF ACTIVITIES FOR THE REDDIG START-UP

Notas:

OK Realizado
NA No aplicable
XFER Transferencia

Notes:

OK Done
NA Not applicable
XFER Transference

01. Estado de implantación: SAEZ

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SAEZ-SAME/SCEL	OK	OK	NA	NA	
Atsd SAEZ-SUMU	OK	OK	NA	NA	
ATSd SAEZ/BAIRES-SUMU APP	OK	OK	NA	NA	
Atsd SAEz/BAIRES-SUMU ACC	OK	OK	NA	NA	
Atsd SAEZ-SUMU APP	OK	OK	NA	NA	
ATSa-1	OK	OK	NA	NA	
ATSa-2	OK	OK	NA	NA	
ATSa-3	OK	OK	NA	NA	
ATSa-4	OK	OK	NA	NA	
ATSa-5	OK	OK	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	Operación
Admin-1	OK	OK	NA	NA	Operación
AFTN SLLP	OK	NA			
AFTN SCEL	OK	NA			
AFTN SUMU	OK	NA			
AFTN SGAS	OK	NA			
AFTN SPIM	OK	NA			
AFTN SBCT	OK	NA			
Radar SAEZ Tx	OK	NA			
Radar SUMU Tx	OK	NA			
GNSS	OK	NA	NA	NA	
Línea PSTN recuperación de desastre	OK 5411-4480-2472	NA	NA	NA	
Línea de Respaldo	De acuerdo al cronograma	NA	NA	NA	

02. Estado de implantación: SBCT

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSD SBCT-SGAS	OK	OK	NA	NA	
Atsd SBCT-SUMU	Pendiente	Pendiente	NA	NA	Señaliza pero sin audio 02 JUN 03
ATSa-1	OK	OK	NA	NA	
ATSa-2	OK	OK	NA	NA	
ATSa-3	OK	OK	NA	NA	
ATSa-4	OK	OK	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin-1	13 JUN 03		NA	NA	
Admin.-2	13 JUN 03		NA	NA	
AFTN SLLP	OK	NA			Se requiere programar ahora
AFTN SAEZ	OK	NA			
AFTN SUMU	OK	NA			
AFTN SGAS	13 JUN 03	NA			
GNSS	13 JUN 03	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	OK 412577250	NA	NA	NA	

03. Estado de implantación: SBMN

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SBMN/SBPH-SLLP	OK	OK	NA	NA	
ATSd SBMN-SVMI	OK	OK	NA	NA	
ATSd SBMN/SBPH-SKED	OK	OK	NA	NA	
ATSd SBMN-SKED	OK	OK	NA	NA	
ATSd SBMN-SKED/SKLT	OK	OK	NA	NA	
ATSa-SBPH	OK	OK	NA	NA	
ATSa-SBMN	OK	OK	NA	NA	
ATSa-SBBE	OK	OK	NA	NA	
ATSa-4 ??			NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin-1	OK	OK	NA	NA	
AFTN SKED	OK	NA			
AFTN SMPM	OK	NA			
AFTN SOCA	OK	NA			
AFTN SGYC	OK	NA			No probado en Guyana
AFTN SPIM	OK				
GNSS	NA	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	OK 926520709	NA	NA	NA	

04. Estado de implantación: SBRF

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSa-1	OK	OK	NA	NA	
ATSa-2	OK	OK	NA	NA	
ATSa-3	OK	OK	NA	NA	
ATSa-4	OK	OK	NA	NA	
ATSa-5	OK	OK	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin-1	OK	OK	NA	NA	
Admin.-2	OK	OK	NA	NA	
AFTN SVMÍ	OK	NA			
GNSS	NA	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	OK 8133414234	NA	NA	NA	

05. Estado de implantación: SCEL

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SCEL-SAEZ/SAME	OK		NA	NA	
ATSd SCEL-SPIM	OK		NA	NA	
ATSA-1	OK		NA	NA	
ATSa-2	OK		NA	NA	
ATSa-3	OK		NA	NA	
ATSa-4	OK		NA	NA	
Teléfono Mantenimiento	OK		NA	NA	
Admin-1	OK		NA	NA	
Admin.-2	13 JUN 03		NA	NA	
AFTN SAEZ	OK	NA			
AFTN SPIM	OK	NA			
GNSS	27 JUN 03	NA	NA	NA	
Línea PSTN recuperación de desastre	13 JUN 03	NA	NA	NA	
Línea de Respaldo	ISDN 13 JUN 03	NA	NA	NA	

06. Estado de implantación: SEGU

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SEGU-SKED	OK	13 JUN 03	NA	NA	Falta Bogotá
ATSd SEGU-SPIM	OK	13 JUN 03	NA	NA	
ATSa ACC-1	OK	13 JUN 03	NA	NA	
ATSa ACC-2	OK	Uso futuro	NA	NA	Uso futuro
ATSa APP	OK	Uso futuro	NA	NA	Uso futuro
ATSa SUPV.	OK	13 JUN 03	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin-1	OK	Pendiente	NA	NA	
Admin.-2	OK	Pendiente	NA	NA	Enlase con Director
AFTN SPIM	OK	NA			Listo para XFER
AFTN SKED	OK	NA			Listo para XFER
AFTN SVM1	OK	NA			Listo para XFER
GNSS	NA	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	Pendiente	NA	NA	NA	

07. Estado de implantación: SGAS

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSD SGAS-SBCT			NA	NA	
ATSa ACC			NA	NA	
Teléfono Mantenimiento			NA	NA	
Admin-1			NA	NA	
Admin.-2			NA	NA	
Admin.-3			NA	NA	
AFTN SAEZ		NA			
AFTN SBCT		NA			
GNSS		NA	NA	NA	
Línea PSTN recuperación de desastre		NA	NA	NA	
Línea de Respaldo		NA	NA	NA	

08. Estado de implantación: SKED

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SKED-SEGU	OK	OK	NA	NA	
ATSd SKED-SPIM	OK	OK	NA	NA	
ATSd SKED-SVMI	OK	OK	NA	NA	
ATSd SKED-SBMN	OK	OK	NA	NA	
ATSd SKED-SBMN/SBPH	OK	OK	NA	NA	
ATSd SKLT/SKED-SBMN/SBPH	OK	OK	NA	NA	
ATSd SKEC/SKED-SVMI	OK	OK	NA	NA	
ATSa-1	OK	OK	NA	NA	
ATSa-2	OK	OK	NA	NA	
ATSa-3	OK	OK	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin-1	OK	OK	NA	NA	
Admin.-2	OK	OK	NA	NA	
AFTN SPIM	OK	NA			Listo para XFER
AFTN SEGU	OK	NA			Listo para XFER
AFTN SBMN	20 JUN 03	NA			
AFTN SVMI	20 JUN 03	NA			
GNSS	30 JUN 03	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	OK	NA	NA	NA	

09. Estado de implantación: SLLP

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSD SLLP-SBMN/SEP	OK		NA	NA	
ATSD SLLP-SPIM	OK		NA	NA	
ATSa-1	OK		NA	NA	
ATSa-2	OK		NA	NA	
ATSa-teléfono	OK	OK	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin-1	OK	13 JUN 03	NA	NA	
Admin.-2	OK	13 JUN 03	NA	NA	
AFTN SAEZ	OK	NA			Listo para XFER
AFTN SBCT	OK	NA			Listo para XFER
AFTN SPIM	OK	NA			Listo para XFER
GNSS	13 JUN 03	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	13 JUN 03	NA	NA	NA	

10. Status of implementation: SMPM

REDDIG Circuit	CAA circuit configured and connected to REDDIG / Date of connection and configuration	Final user terminal connected and configured for operation / date of connection and configuration	AFTN Circuit indicative	AFTN Circuit identifier IN/OUT	Comments
ATSa ACC			NA	NA	
ATSa APP			NA	NA	
Maintenance telephone			NA	NA	
AFTN SYGC		NA			
Admin 1	For future use	For future use			
Admin 2	For future use	For future use			
AFTN SVM1		NA			
AFTN SBMN		NA			
GNSS		NA	NA	NA	
PSTN line or recuperation in case of disaster		NA	NA	NA	
Backup line		NA	NA	NA	

11. Status of implementation: SOCA

REDDIG Circuit	CAA circuit configured and connected to REDDIG / Date of connection and configuration	Final user terminal connected and configured for operation / date of connection and configuration	AFTN Circuit indicative	AFTN Circuit identifier IN/OUT	Comments
ATSa SBMN	OK	OK	NA	NA	
ATSa SMPM	OK	OK	NA	NA	
ATSa SBRF	OK	OK	NA	NA	
ATSa	OK	OK	NA	NA	
Maintenance telephone	OK	OK	NA	NA	
Admin.-1	OK	Future use	NA	NA	Future use
AFTN SVM1	OK	NA			
AFTN SBMN	OK	NA			
GNSS	NA	NA	NA	NA	
PSTN line for recuperation in case of disaster	OK	NA	NA	NA	
Backup line	OK ISDN	NA	NA	NA	

12. Estado de implantación: SPIM

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SPIM-SCEL	OK	13 JUN 03	NA	NA	
ATSd SPIM-SKED	OK	13 JUN 03	NA	NA	
ATSd SPIM-SEGU	OK	13 JUN 03	NA	NA	
ATSd SPIM-SLLP	OK	13 JUN 03	NA	NA	
ATSa-1	OK	13 JUN 03	NA	NA	
ATSa-2	OK	13 JUN 03	NA	NA	
ATSa-3	OK	13 JUN 03	NA	NA	
ATSa-4	OK	13 JUN 03	NA	NA	
ATSa-5	OK	13 JUN 03	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin.-1	OK	Pendiente	NA	NA	
Admin.-2	OK	OK	NA	NA	DGAC Pendiente
Admin-3	OK	OK	NA	NA	
AFTN SCEL	OK	NA			
AFTN SEGU	OK	NA			
AFTN SVMI	OK	NA			
AFTN SKED	OK	NA			
AFTN SLLP	OK	NA			
AFTN SAEZ	OK	NA			
AFTN SBMN	OK	NA			
GNSS	OK	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	OK ISDB 511-5153015	NA	NA	NA	

13. Estado de implantación: SUMU

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SUMU ACC-SAEZ ACC (N)	OK	OK	NA	NA	
ATSd SUMU ACC-SBCT	13 JUN 03	13 JUN 03	NA	NA	Por identificar
ATSd SUMU APP-SAEZ/BAIRES	OK	OK	NA	NA	
ATSd SUMU ACC-SAEZ/BAIRES	OK	OK	NA	NA	
ATSd SUMU APP-SAEZ(S)	OK	OK	NA	NA	
ATSa ACC	OK	OK	NA	NA	
ATSa APP	OK	OK	NA	NA	
Teléfono Mantenimiento	OK	OK	NA	NA	
Admin.-1	OK	Pendiente	NA	NA	
AFTN SBCT	OK	NA			
AFTN SAEZ	OK	NA			
RADAR SAEZ tx	OK	NA			
RADAR SUMU tx	OK	NA			
GNSS	NA	NA	NA	NA	
Línea PSTN recuperación de desastre	OK	NA	NA	NA	
Línea de Respaldo	13 JUN 03	NA	NA	NA	

14. Estado de implantación: SVMl

Circuito REDDIG	Circuito del CAA configurado y conectado a REDDIG / fecha de conexión y configuración.	Terminal de usuario final conectado y configurado para operación / fecha de conexión y configuración	AFTN Indicativo de circuito	AFTN Identificador de circuito IN/OUT	Comentarios
ATSd SVMl-SKED			NA	NA	
ATSd SVMl-SBMN			NA	NA	
ATSd SVMl-SKED/SKEC			NA	NA	
ATSd SPIM-SLLP			NA	NA	
ATSa- (W)			NA	NA	
ATSa- (E)			NA	NA	
ATSa Supv			NA	NA	
Teléfono Mantenimiento			NA	NA	
Admin.-1			NA	NA	
AFTN SYGC		NA			
AFTN SOCA		NA			
AFTN SMPM		NA			
AFTN SPIM		NA			
AFTN SEGU		NA			
AFTN SKED		NA			
AFTN SBRF		NA			
GNSS		NA	NA	NA	
Línea PSTN recuperación de desastre		NA	NA	NA	
Línea de Respaldo		NA	NA	NA	

15. Status of Implementation: SYGC

REDDIG Circuit	CAA circuit configured and connected to REDDIG / Date of connection and configuration	Final user terminal connected and configured for operation / date of connection and configuration	AFTN Circuit indicative	AFTN Circuit identifier IN/OUT	Comments
ATSa- ACC	OK	OK	NA	NA	
ATSa- FIS	OK	Future use	NA	NA	
ATSa Supv	OK	OK	NA	NA	
Maintenance telephone	OK	OK	NA	NA	
Admin.-1	OK	Pending	NA	NA	To be connected
AFTN SMPM	OK	NA			Limitations
AFTN SVMI	OK	NA			
AFTN SBMN	OK	NA			
GNSS	NA	NA	NA	NA	
PSTN line for recuperation in case of disaster	OK	NA	NA	NA	
Backup line	Pending	NA	NA	NA	

**Cronograma Tentativo de Actividades para la Puesta en Marcha de la Red /
Tentative Plan of Activities for the Start-up of the Network**

Actividad/Activity	SEMANAS / WEEKS														
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Conexión de los servicios a la red / Connection to the network services	X	X													
Evaluación Técnica-Operacional / Technical-Operational Evaluation			X												
Training Fase II / Phase II Training					X	X	X								
Red de respaldo / Backup network	X	X	X	X	X	X	X	X							
Manual de Operaciones de la REDDIG/REDDIG Operation Manual	X	X	X	X	X	X	X	X							
Puesta en Marcha Operacional / Operational Start-up									X						

**Fecha de inicio del cronograma: 2 de junio de 2003/
Initiation date of the Plan of Activities: 2 June 2003**

CONFIGURATION OF THE REDDIG BACKUP NETWORK**STATES WHICH PRESENTLY HAVE ISDN CIRCUITS**

SBMN
SBCT
SBRF
SOCA
SPIM
SKED

STATES THAT WOULD HAVE ISDN CIRCUIT SHORTLY

SAEZ
SUMU
SCEL

STATES THAT WILL IMPLEMENT DEDICATED DIGITAL CIRCUITS OR VPN NETWORK

SVMI
SEGU
SMPB
SYGC
SLLP
SGAS

MANUAL
FOR THE OPERATION OF THE REDDIG
(NETWORK START-UP)

Document:	RDG-MRO-01.01 (Preliminary edition)
Date:	23 May 2003
Situation:	For Approval
Supersedes:	N/A

1. Purpose

1.1 This document defines the guidelines and procedures that maintenance technical units of the REDDIG nodes should follow to operate and maintain the REDDIG network at start-up.

2. Scope

2.1 Guidelines and procedures defined in this manual apply to normal nodes as well as to non-management NCC. The coordination guidelines between NCCs are not contained in this document.

2.2 The term Administration and Administrations is used in this document to name the CAA partners in the REDDIG.

3. Operation Guideline

3.1 Personnel requirement and technical resources in the nodes

3.1.1 Each REDDIG node should count in site with qualified technical personnel, trained to operate and provide maintenance to the REDDIG network equipment (replacement of fuses, modules and units).

3.1.2 The following is the responsibility of each Administration regarding the REDDIG node/nodes of their State:

- a) That the technical maintenance unit conformed by the qualified technical personnel is available at least 8 hours daily x 365 days per year, excepting the NCCs which should have technical personnel available during 24 hours daily during 365 days per year;
- b) That the technical personnel of the maintenance unit of the REDDIG node give immediate answer in case required by the NCC, inclusively in a time not within the schedule indicated by the Administration;
- c) That the technical personnel of the maintenance unit, in the REDDIG node, count with the necessary basic tools to do the maintenance of the node; a POTS telephone line for oral coordination; electronic mail; and a free-hand telephone to do necessary coordinations within the REDDIG room where the REDDIG rack is installed; and
- d) That a good-quality POTS line, for exclusive use of the REDDIG, is available and connected to dialup MODEM of the REDDIG rack.

3.2 Technical Form for the operation of the REDDIG Node (RDG-TOF-01)

3.2.1 The Administration should fill in a technical form (**Annex A**) (RDG-TOF-01) for each node under its responsibility. This should be sent by email to the management NCC, as indicated in **Annex B**. In case of change of the information provided by the Administration, it is the responsibility of the Administration to update the technical form and to forward it to the NCCs as soon as possible. The NCC responsible for the management of the network will confirm receipt of the technical form to the corresponding Administration.

3.3 Procedure to contact the NCC to report a failure or to request change of configuration

3.3.1 In principle, all the failures produced in the network, including those having relation with the terminal equipment connected to the communication ports of the REDDIG, should be reported as soon as possible to the management NCC (**Annex B**).

3.3.2 Before contacting the management NCC (**Annex B**) to report a failure, personnel of the REDDIG technical maintenance unit, affected by the failure, should follow the below procedures:

- a) Verify the correct operation of the REDDIG equipment, for which the following should be verified: incoming power to the board, thermo-magnetic keys, fuses panel in the console, fuses of the equipment, equipment indicative lamps, node work chain, reported operational status and alarm indications in the screen of the local NMS;
- b) If it is the case, verify the correct operation of the terminal equipment connected to the REDDIG;
- c) Obtain the necessary information to describe the problem concisely and precisely, for which the name of the node, the equipment, circuit and name of the technician issuing the report should be considered;
- d) Contact by the telephone the management NCC (**Annex B**) and report the failure. As alternative, in case it is not an urgent matter, the report could be done through email to the management NCC (See **Annex B**).

3.3.3 In case requiring a change of configuration in the node, only the authorized personnel indicated in the technical form of the node should request this. The request should be forward by e-mail to the management NCC (**Annex B**). The request should contain a clear and complete description related to the requested change, and the most favourable date and time to proceed to the test and reload of the configuration. After the change has been accepted by the management NCC, and there is assurance that no operation parameter of the REDDIG network would be affected, the management NCC would coordinate with the Administration the details of the implementation. In case that the request could not be attended due to technical and/or service limitations, the management NCC would inform the Administration of this result.

3.4 Guideline for the operation of the REDDIG nodes with the NCC

3.4.1 The languages used to make the co ordinations between the nodes and with the management NCC would be Spanish and English.

3.4.2 The maintenance units of the REDDIG nodes should follow instructions imparted by the management NCC (**Annex B**), in order to maintain and/or improve the network performance, and/or to solve a problem that could be affecting the normal operation of the network.

3.4.3 The changes of the REDDIG equipment configuration should only be done by the management NCC (**Annex B**). In case that a configuration change is required in a node, procedures to be followed should be the same as indicated in paragraph 3.3.3.

3.4.4 With the purpose of facilitating the network maintenance coordination, the telephone numbers for the maintenance units of the REDDIG should be established on the Administrative network, and the principal telephone number of Maintenance should have the following format: NN01, where NN is the code of the two digits assigned to the REDDIG node.

4. Maintenance procedure

4.1 The maintenance units of the REDDIG nodes should be familiarised with the equipment and its operation, as well as with the documentation and nomenclature used for the description of the equipment.

4.2 Proceedings indicated in the most recent edition of the REDDIG manual of operations and maintenance should be used for the maintenance routines (document RDG-MPM-xx.xx). Meanwhile this manual is not available, procedures should be consulted with the management NCC.

5. Spare parts

5.1 The procedures for the generation of spare parts requests as well as for the attention of these requests will be done automatically by the management NCC, once the corresponding failure has been detected in the node.

5.2 Considering that the States policies are not similar for all the Administrations, the mechanism to follow for the delivery and return of equipment / module of the REDDIG should be established with each Administration.

6. Update of the Manual for the Regulation of Operations

6.1 The manual for the regulation of operations of the REDDIG will be improved and updated periodically by the REDDIG Coordination Committee, with the support of an *ad-hoc* task force. Small corrigenda and amendments could be done by the entity assigned by the REDDIG Coordination Committee.

6.2 The edited manuals, with the exception of the first edition of the document of the REDDIG Operation Manual, which is considered as a preliminary edition to be approved by the REDDIG Coordination Committee, will correspond to one of the following categories:

- a) Request for Comments (RFC): manual developed by the ad-hoc group, submitted to the Administrations to receive comments and suggestions.
- b) To be approved: manual elaborated by the ad-hoc task force, which incorporates comments and suggestions received from the Administrations, and submitted to the REDDIG Coordination Committee for study and approval.
- c) In force: manual approved by the REDDIG Coordination Committee to be used for the operation and maintenance of the network.
- d) Out of force: Operations Manual that has been superseded by a new edition.

6.2.1 Rule for the numeration of the documentation (TBD).

- END -

ANNEX A

Form: Technical Form for the operation of the REDDIG Node (RDG-TOF-01)

1. General Information of the REDDIG node

Item	Information
REDDIG Node	
Address	
Telephone (maintenance technical unit)	
Fax (maintenance technical unit)	
E-mail (maintenance technical unit)	
Telephone numbers of the REDDIG Administrative Network	

Note: provide the complete telephone number including the country and city codes, the local telephone number and, if it is the case, the extension number.

2. Information of the REDDIG Node Technical Unit

Name	Charge (2)	REDDIG telephone	Telephone (1)	Cellular

Notes

(1) Provide the complete telephone number of the public network, including country and city codes, local telephone number and, if it is the case, the extension number.

(2) If the person is authorized to request changes in the node configuration, a call saying, "The Administration should assign ..." should be included before the description of the person charge.

3. REDDIG Node Technical Information

Item	Information	Comment
REDDIG dialup MODEM telephone number		
ATSa network access prefix		
REDDIG Administrative network access prefix		
Test number for ATSa incoming call		
Test number for ATSa outgoing call		
Test number for the Administrative network incoming call		
Test number for the Administrative network outgoing call		

Notes:

(1) The access prefixes are only required in case of operation with PABX or VCSS.

(2) The test numbers for incoming calls should correspond to the REDDIG network directory number (code of the node and local number).

ANNEX B

INFORMATION RELATED TO THE NCCs

1. The NCC management centres of the network

1.1 The REDDIG network counts with two management network centres, known as NCC, located at the operations start-up, one, in Argentina (SAEZ), and the other, in Peru (SPIM). The NCC management centres support one each other to attain high availability in the network. However, only one of the NCCs acts as active management centre of the network (management NCC) and the other as backup (non-management NCC).

1.2 The operation of the NCC centres has been programmed to produce management alternation between the NCCs in order to minimise the interruption effects due to sun outage. It has been planned that the alternation of the NCCs is automatically produced in case of fault in the management node.

1.3 During the first 6 months of the network operation, the management NCC would be the Lima NCC (SPIM). The dates of programmed alternation for the management NCC would be informed to the REDDIG Maintenance Units with one month of anticipation.

2. Information of the NCC management centres

2.1 NCC – SAEZ (Argentina)

Item	Information	Comments
Coordination focal point		
Technical support	On-duty personnel	
Public network telephones		
REDDIG maintenance telephone	2001	Administrative network
E-mail		

2.2 NCC –SPIM (Peru)

Item	Information	Comments
Coordination focal point		
Technical support	On-duty personnel	24 hours x 365 days
Public network telephone	(51) 1 515-3015	
REDDIG Maintenance telephone	6001, 6002	Administrative network
E-mail		

Agenda Item 5: Follow-up on co ordinations for the initiation of project RLA/03/901

5.1 The meeting was informed that, with the exception of Colombia, all the other States have agreed to participate in the new regional project RLA/03/901 and that, to activate the project, it is required that the States deposit the earliest possible their cost-sharing contributions for year 2003, which should be deposited in the following account:

//CC000305101
The Royal Bank of Canada
Ste. Catherine and Stanley Branch, Montreal
1140 Ste. Catherine Street West Montreal
Quebec H3B 1H7
For Credit to: 05105 404 6 892
Ref. ICAO Regional Technical Cooperation Project RLA/03/901
ICAO Pool Account

5.2 The meeting was informed about the amount of said contributions, which had been informed to the States on due time through ordinary correspondence. The meeting, while examining this item, discussed the specific matters that are detailed below:

- a) Contributions of the States and urgency of the satellite segment rental.
- b) Situation of Colombia.
- c) Transfer of the Lima NCC to Manaus.

Contributions of the States and urgency of the satellite segment lease

5.2.1 The meeting was informed about the co ordinations carried out by the ICAO Technical Cooperation Bureau with PanAmSat to achieve a favourable contract for five years for the rental of the REDDIG satellite segment. In this regard, the meeting was informed about the need to collect a minimum of USD 231,300.00, which are necessary in order that ICAO can sign contract with PanAmSat for the rental of satellite segment for year 2004.

5.2.2 In this regard, it was indicated that if ICAO, in representation of the States, signs a contract for five years and does not pay on time the first-year instalment, the organization (States) would be subject to a corresponding penalty. However, it was indicated that, as result of negotiations carried out by ICAO with PanAmSat, this penalty would not be applied to the rest of the years, and that the termination of the service, in those years, would be possible by mutual consensus through a previous notice.

5.3 In correspondence to the above, the meeting formulated the following Conclusion:

CONCLUSION RCC 5/4 Deadline to deposit States' cost-sharing contributions to project RLA/03/901

In order that ICAO could sign a five-year contract with PanAmSat for the rental of the REDDIG satellite segment, the States, as an issue of urgency, and not later than 15 June 2003, deposit in ICAO account their cost-sharing contributions corresponding to the first year payments programme established for project RLA/03/901.

5.3.1 The meeting discussed an important subject related to the non-compliance with the commitment of depositing their contributions to the future project RLA/03/901. In this regard, ICAO expressed its preoccupation of signing the contract and, as it had happened before with project RLA/98/019, some States do not deposit on time their contributions, which would risk the contract with PanAmSat and the future operation of the REDDIG.

5.3.2 The meeting agreed with this preoccupation and, as result of an intense debate, it established that ICAO after going through all the necessary coordination instances to obtain corresponding payment, to consider the possibility of cutting the service to the REDDIG node of the debtor State as a last resource. In this regard, it was requested that ICAO, for the next coordination meeting, present a draft procedure, which could be included as a section of the REDDIG Operation Manual, indicating the steps to follow in case of arrear payments from part of the States.

Situation of Colombia

5.4 The meeting was informed that Colombia had expressed to ICAO their impossibility to accomplish with the payment plan established for RLA/03/901 project, due to budgetary reasons, and that they could only participate in the payment of the satellite segment. The other project services would, in such sense, remain beyond their reach, and, the Bogotá REDDIG node operation and maintenance, under their own responsibility. Likewise, it was informed that a draft memorandum of understanding was received from Colombia on this subject.

5.5 While considering this matter, the meeting noted that Colombia had played an important role in the definition of several subjects for the implementation of the REDDIG. In such sense, it was recognized the necessity that ICAO coordinates again with Colombia, in order to persuade such Administration to continue participating in this regional effort, which took years to come into effect, establishing a new phase in aeronautical communications, with a view to implement CNS/ATM, thus requiring of the cooperation of the entire Region.

5.6 Likewise, it was recognized that isolated efforts do not contribute to the establishment of institutional arrangements, as such of multinational nature, in order to reach a cost/efficient implementation in future CNS/ATM systems. On this matter, the meeting adopted the following conclusion:

CONCLUSION RCC 5/6 Colombia's participation in project RLA/03/901

That ICAO, as an issue of urgency and high-priority, urge Colombia to participate in regional project RLA/03/901 in order that this State is totally integrated to regional communications for the AFS and participates in the efforts to attain institutional agreement of multinational nature that would facilitate the cost/efficient implementation of CNS/ATM systems.

5.7 The meeting noted that the nodes operation requires anyway the project services according to what was foreseen under Immediate Objective No. 2, which contemplates the management of the REDDIG for two years. These services are addressed to give support to the network general management, as well as to provide assistance in the maintenance and operation of the network, including the node of Bogotá.

5.8 Taking into consideration that the States participating in the project would pay for these services, it was considered fair that, while Colombia contributed to the satellite segment payment this State would also have to pay the services rendered by the project. In this regard, the meeting, while evaluating this issue, agreed that, if Colombia finally would not wish to participate in the project, this State would have to contribute, annually, with the rental cost of the satellite segment and also with the associate costs of the project, during the whole validity period of the project.

Transfer of the NCC to Manaus

5.9 The meeting was informed that, the new project budget considers only USD 30,000.00 for the transfer of the Lima NCC to Manaus, and that the contractor SEEE had quoted an approximate cost of USD115,000.00, which the meeting considered too high. In this regard, the meeting was also informed about the co ordinations being carried out with SEEE regarding the cost of this transfer, but that no significant discount was being expected. The meeting requested ICAO to inform the Administrations of the results obtained in these negotiations. Likewise, the meeting took note that the transfer of the NCC should be programmed for execution before the finalization of project RLA/98/019. In this sense, the meeting authorised ICAO to, in case necessary, use the resources foreseen in the budget prevision for spare parts of the project RLA/03/901.

5.10 On the other hand, and considering the experience of the implementation of the Lima NCC with geographic redundancy in Ezeiza, which required, among other things, a digital circuit independent from the REDDIG to update the database, Brazil was recommended to go ahead with the necessary previsions for the implementation of the digital circuit, which appeared to be simple but could imply certain local complications.

Agenda Item 6: Other issues

6.1 The date for next meeting of the Coordination Committee of Project RLA/98/019 was established for the last two weeks of August 2003.

6.2 It was agreed that the information on the REDDIG project appearing in the *web* page of the Regional Office should be updated, and a more efficient participation in the forum included in this site was requested to the project partners in order to coordinate in a better way project activities.