INTERNATIONAL CIVIL AVIATION ORGANIZATION

RLA/03/901

TWENTY SIXTH MEETING OF THE COORDINATION COMMITTEE (RCC/26)

PRELIMINARY REPORT

(Teleconferences, 2 to 5 March 2021)

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HISTORY OF THE MEETING

ii-1. PLACE AND DURATION OF THE MEETING

The Twenty Sixth Meeting of the Coordination Committee of Project RLA/03/901 - *REDDIG Management System and Satellite Segment Administration*, was carried out via teleconferences (Zoom), from 2 to 5 March 2021.

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. In addition, Mr. Francisco Almeida, CNS Regional Officer welcomed, thanked the State´s participation and initiated the Meeting.

ii-3. WORKING LANGUAGES

The meeting working languages for the discussions and documentation were Spanish and English. Documentation was presented in both languages.

ii-4. PARTICIPANTS AND ORGANIZATION

The Meeting was attended by 44 participants of 14 member States (Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, France, Guyana, Paraguay, Peru, Suriname, Trinidad & Tobago, Uruguay and Venezuela), 1 State observer from the North American and Caribbean Region (United States), 1 company from the industry (AIREON) including ICAO specialists. The list of participants is being presented in page iii-1.

Mr. Francisco Almeida, CNS Regional Officer acted as Secretary, assisted by Mrs. Veronica Chávez, Technical Assistance Officer and by Mr. Javier Vittor, REDDIG Administrator.

ii-5. LIST OF CONCLUSIONS

LISTA DE PARTICIPANTES / LIST OF PARTICIPANTS

ARGENTINA
1. Facundo Gatti
2. María Malena Reinoso
3. Sergio Vallone
4. Marcos Lemos

BOLIVIA
5. Javier Campos
6. Remigio Blanco
7. Hernán Tito

BRASIL
8. Bruno Pacheco
9. Valdileide Freire

CHILE
10. Arnaldo Passalacqua
11. Francisco Uzieda
12. Christian Vergara

COLOMBIA
13. Andrés Colmenares
14. Robinson Quintero

ECUADOR
15. Washington Quinde
16. Miguel Olmedo

ESTADOS UNIDOS / UNITED STATES
17. Al O'Neill
18. Will Turner

FRANCIA (Guyana Francesa)
19. Igor Bordelais

GUYANA
20. Mortimer Salisbury
21. Troy Gittens

PARAGUAY
22. Juan Estigarribia
23. Alexander Aguayo

PERÚ
24. Luis Gárate
25. José Rubira
26. Ricardo Arteaga
27. Yunnior Lévano

SURINAM
28. Jurgen Cicilson
29. Orlando Kofi

TRINIDAD & TOBAGO
30. Veronica Ramdath
31. Rupnarine Baboolal
32. Steve Saroop
33. Naresh Seeparsad
34. Satnarine Maharaj

URUGUAY
35. Ricardo Clavijo
36. Miguel Vera

VENEZUELA
37. Jarumy Castillo
38. Luis Escobar
39. Willy Rojas

AIREON
40. Ana María Persiani
41. Athayde Frauche

OACI
42. Verónica Chávez
43. Francisco Almeida
44. Cristian Javier Vittor

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 **Appendixes A** and **B** to this part of the Report.

APPENDIX A

PROVISIONAL AGENDA

Agenda Item 1:	Approval of the agenda and meeting schedule
Agenda Item 2:	Review of the Report of the Twenty-fourth Meeting of the Coordination Committee (RCC/24) and the Report of the Twenty-fifth Extraordinary Meeting of the Coordination Committee (RCC/25)
Agenda Item 3:	Report of the activities carried out to date since the last meeting of the Coordination Committee
Agenda Item 4:	Work plan for 2021
Agenda Item 5:	Financial situation of the project and approval of the budget
Agenda Item 6:	Annual evaluation of the project
Agenda Item 7:	Other business

EXPLANATORY NOTES TO THE PROVISIONAL AGENDA

Agenda Item 1: Approval of the agenda and meeting schedule

The provisional Agenda and the Schedule proposed by the Secretariat for the Twenty-sixth Meeting will be presented for the consideration and approval of the Coordination Committee.

Agenda Item 2: Review of the Report of the Twenty-fourth Meeting of the Coordination Committee (RCC/24) and the Report of the Twenty-fifth Extraordinary Meeting of the Coordination Committee (RCC/25)

The Committee will review, for approval, the Report of its Twenty-Fourth Meeting (RCC/24) held in Lima, Peru, from March 3 to 6, 2020 and of the Twenty-Fifth Extraordinary Meeting (RCC/25) held by means of teleconference, on October 16, 2020. Likewise, the status of compliance with the conclusions formulated during said meetings, as well as the valid conclusions from previous meetings, will be analyzed.

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

Under this agenda item, will analyze the activities carried out since the last meeting of the Committee regarding:

a) Monitoring of the performance of REDDIG II;
b) REDDIG II training program; and,
c) New services and activities in REDDIG II.

Agenda Item 4: Work plan for 2021

The Committee will analyze the work program planned for 2021:

a) New REDDIG II activities and services;
b) Activities and new services in the MEVA III / REDDIG II interconnection; and,
c) 2021 training program

Agenda Item 5: Financial situation of the project and approval of the budget

The status of the cost-sharing contributions to the project and a summary of the obligations incurred during 2020, as well as the project budget for 2021, will be presented for approval by the Committee.

Agenda Item 6: Annual evaluation of the project

The Committee will take note of the status of the project at the end of the year, including the management and results indicators, as well as the monitoring and control of the project in relation to the work plan approved for 2020 set out in the corresponding forms, concluding with reviewing the survey of participating States on their annual evaluation of the project.

Agenda Item 7: Other business

Under this Agenda item, the Committee may examine any other related matter that it deems appropriate.

APPENDIX B

MEETING SCHEDULE

HOUR	**Tuesday** 2 March 2021	HOUR	**Wednesday** 3 March 2021	HOUR	**Thursday** 4 March 2021	HOUR	**Friday** 5 March 2021
08:30 09:00	Registration	09:00 10:30	Agenda Item 3	09:00 10:30	Agenda Item 5	10:00 10:45	Review of the Final Report
09:00 09:15	Opening						
09:15 09:30	***Break***	10:30 10:45	***Break***	10:30 10:45	***Break***	10:45 11:00	***Break***
09:30 12:30	Agenda Items 1 & 2	10:45 12:15	Agenda Item 4	10:45 12:15	Agenda Item 6	11:00	Closing Session
12:30 13:30	***Lunch Break***	12:15 13:00	***Lunch Break***	12:15 13:00	***Lunch Break***		
13:30 15:00	Agenda Item 3	13:00 14:00	Agenda Item 4	13:00 14:00	Agenda Item 7		

Agenda Item 2: Review of the report of the last meetings of the REDDIG Coordination Committee

2.1 Under this agenda item, the Meeting reviewed the following working paper:

- WP/02 – *Review of the report of the last meetings of the Coordination Committee* (presented by the Secretariat).

2.2 Under this agenda item, the Meeting analysed and approved the report of the Twenty-fourth meeting of the REDDIG Coordination Committee (RCC/24), held in Lima, Peru, on 3-6 March 2020 and attended by 10 Member States (Bolivia, Brazil, Chile, Colombia, France, Guyana, Paraguay, Peru, Uruguay and Venezuela), 1 Observer State from the North America, Central America and Caribbean Region (United States), 1 international organisation (COCESNA) and 1 company of the industry (CenturyLink Peru), with a total of 24 participants, including ICAO experts.

2.3 The RCC/24 meeting formulated the following conclusions:

RCC/24-1 Procedure to repair damaged equipment within a reasonable time;

RCC/24-2 Establishment of the REDDIG III *ad hoc* group;

RCC/24-3 Interconnection of regional IP networks;

RCC/24-4 Extension of contract nº 22501528 MEVA III – REDDIG II interconnection;

RCC/24-5 Delinquency procedure for cost-sharing contributions to the RLA/03/901 project; and

RCC/24-6 Approval of Rev "U" of the Regional Project RLA/03/901 budget.

2.4 Likewise, the Meeting approved the report of the Twenty-fifth (extraordinary) meeting of the RLA/03/901 Project Coordination Committee, REDDIG Management System and Satellite Segment Administration, held *via* teleconference (Zoom) on 16 October 2020.

2.5 The meeting was attended by representatives of 12 member States of the REDDIG Coordination Committee (Argentina, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Trinidad and Tobago, Uruguay, and Venezuela), and ICAO officers, totalling 25 participants.

2.6 The RCC/25 (extraordinary) meeting formulated the following conclusion:

RCC/25-1 Outstanding cost-sharing contributions to Project RLA/03/901

2.7 After analysing the conclusions formulated by the previous meetings, the members of the RCC/26 considered that the following conclusions were still valid: 8-8, 22-1, 22-2, 22-3, 22-4, 24-1, 24-2, 24-3 and 24-6.

2.8 The following conclusions were considered as completed: 19-1, 22-5, 22-6, 22-7, 22-8, 23-1, 24-4, 24-5 and 25-1.

2.9 The Appendix to this part of the report shows the conclusions still in force, including those formulated by this Meeting.

APPENDIX

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

No.	Title	Content	Status	Remarks
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	Taking into account that the establishment of the South American Air Navigation and Safety Organization, a multinational system with capacity to manage the REDDIG, continues undefined, the RCC/20 meeting (Lima, Peru, 21-23 March 2017) approved Project RLA/03/901 S revision document, extending the management of REDDIG until 2023.
22-1	Technical visits by the REDDIG Administrator to the network nodes	That the Secretariat: a) Make the necessary arrangements for the REDDIG Administrator to visit at least two network nodes per year.	Valid	Planning for 2020: Guayaquil and Piarco
22-2	Training in technological tools for analysing voice and data applications carried over REDDIG	That the Secretariat: a) At the request of REDDIG member States, organise training courses on the use of tools for analysing information (voice and data) carried over REDDIG.	Valid	A first training course was offered during the RTO/8 meeting (Santiago, Chile), and will be repeated at the RTO/9 meeting.

22-3	Study for replacing REDDIG II connectivity equipment and updating the IOS of network routers	That the REDDIG II Administrator: a) Coordinate the conduction of a study to replace connectivity equipment, mainly the NETGEAR, and to update the IOS of network routers.	Valid	All IOS of the network routers were updated in 2019. Trials on the use of CISCO switches to replace Netgear switches are scheduled for 2020 in the Curitiba and Asuncion nodes.
22-4	Acquisition of firewall equipment for REDDIG II	That the Secretariat: a) At the request of REDDIG member States, and together with the ICAO TCB, purchase firewall equipment for REDDIG II; b) The initial budget assigned for this acquisition would be USD 375,000.00.	Valid	The bidding process is in the final evaluation phase.
24-1	Procedure for sending for repair broken equipment within a reasonable time	That: With regard to the replacement of spare parts stored in the SAM Regional Office, the Project Management shall: a) After the shipment of the spare part is taken care of and its receipt has been confirmed, the receiving State has a period of 60 days to send the equipment for repair at the factory; b) If the deadline set out in the previous item is not met, the Project Management will not respond to another request for spare part from that State; c) States which are currently with broken equipment held shall apply as set out in this conclusion.	Valid	

24-2	REDDIG III AD-hoc Group creation	That: The participating States of the Regional Project RLA/03/901 form an Ad-hoc Group to study technological proposals, for employment in the future REDDIG III, to be implemented from 2022.	Valid	During the RCC/24, the following States expressed interest in participating in the Ad-hoc Group: Brazil, Chile, France and Paraguay.
24-3	Interconnection of regional IP networks	That: a) The Secretariat proceeds with the necessary administrative procedures for carrying out a meeting in Lima, with the participation of ICAO Officers and telecommunication providers of the Regional IP networks of APAC, EUR and SAM. b) The participation of the Secretary of the Communications Panel (CP) is coordinated with the use of resources of the RLA/03/901 Regional Project (air tickets and DSA).	Valid	Two teleconferences were held with the participants of the APAC Regional IP Network (CRV) on 21 January and 24 February 2021. Coordination with participants of Europe's regional IP network (PENS) was initiated in January 2021.
24-6	Approval of the budget for Regional Project RLA/03/901 Rev "U"	That the Secretariat: Take relevant action to allow for the approval by ICAO Headquarters of the revision to Project RLA/03/901 for its subsequent submission to REDDIG member States, as shown in Appendix A to this part of the report.	Valid	Rev U was duly signed by the ICAO Secretary-General and circulated to States for the corresponding process.

26-1	Implementation of REDDIG II ground network (MPLS) nodes in States of other Regions.	The Secretariat: Take the necessary information for the procurement and installation of REDDIG II ground network (MPLS) nodes in states in other regions, as described below: a) A node in Madrid (Spain) in the interest of Argentina, Brazil and Venezuela, to implement, initially, AMHS communications with the COM Center of Madrid. The cost will be shared by the three States concerned; and b) A node in Johannesburg (South Africa), in Argentina's interest for the establishment of voice and data communications with the FIR Johannesburg ANSP. The cost will be charged in Argentina's annual fee.	Valid	
26-2	Approval of the budget of Project RLA/03/901 Rev "V".	That the Secretariat: Take the necessary actions for the approval by ICAO Headquarters of the revision of Project RLA/03/901 shown in Appendix A to this part of the report, for its subsequent submission to the REDDIG member States.	Valid	
26-3	Improvement of logistics for the internment and import of REDDIG equipment and spare parts.	That the Secretariat: Circulate a letter to member States indicating that the Coordination Committee urges to make the necessary efforts to improve logistics (internment, import) regarding REDDIG equipment and spare parts in their respective States, so as not to affect other States and the proper operation of the network.	Valid	

Agenda Item 3: Report on the activities carried out to date since the last meetings of the Coordination Committee (RCC/24 and RCC/25)

3.1 Under this agenda item, the Meeting reviewed the following working paper:

- WP/03 - *Report on the activities carried out to date since the last meetings of the Coordination Committee* (presented by the Secretariat)

Report on the activities carried out to date since the last meeting of the Coordination Committee

3.2 The Meeting reviewed the following activities agreed by the Twenty-fourth meeting of the Coordination Committee (RCC/24):

a) Monitoring the performance of REDDIG II;
b) REDDIG II training programme;
a) Operation of REDDIG II and analysis of the implementation of new services.

MONITORING THE PERFORMANCE OF REDDIG II

Network availability

3.3 The Meeting took note that the availability of the network in 2020 had been 99.98 %. **Appendix A** to this part of the report presents the availability of the network up to 2020.

Logistics

3.4 **Appendix B** to this part of the report shows the logistics by the Regional Office during 2020.

3.5 During 2020, two 80W IBUCs were delivered for repair, and then returned and delivered to their point of origin (nodes in Brazil).

Spare parts of the satellite network

3.6 The Secretariat noted that REDDIG equipment was reaching more than half of its useful life and therefore new developments would be emerging that would require more frequent delivery, repair and replacement logistics.

3.7 It was also noted that the following expenditures were involved in the repair of an item:

a) Payment to the factory for the maintenance performed;
b) Payment to the transport company; and
c) Payment for customs agent services.

3.8 A representative of Venezuela asked about the possibility of being advised about the cost of maintenance (item a) before authorising any intervention on the equipment. The Secretariat explained that the damaged equipment had to be sent to the manufacturer in order to get a quotation for the maintenance to be performed. Once the maintenance cost is known, the State concerned is consulted as to whether or not the service is to be performed.

3.9 It was noted that it could happen that the repair is not possible or the maintenance cost is not of interest. In such a case, the maintenance service would not be completed and the State could request that new equipment be purchased, subject to the availability of resources in the project and of the item in the market. The cost of purchase of the item would be charged to the annual fee of the State requesting the purchase.

3.10 The Secretariat requested that the States proceed to send the damaged equipment for factory maintenance as soon as possible. If spare parts are available at the SAM Office, the REDDIG II administration can send it to the requesting State, to increase the availability of the node. Once the original item returns from maintenance at the factory, the spare part should be returned to the spare part storeroom of the SAM Office.

3.11 According to Conclusion 24-1, which is still valid, States that have received spare parts, but have not sent the original faulty equipment for maintenance at the factory, may not request additional spare parts until they complete the procedure defined in the aforementioned conclusion.

3.12 **Appendix C** to this part of the report contains the inventory of spare parts available in the storeroom of the Regional Office.

3.13 Mention was made of the extended time that the equipment remained in the corresponding customs office, and the importance for focal points to assist with logistical tasks, in order to avoid such situations. **Appendix D** to this part of the report contains the list of focal points of the States participating in the network, as updated at this Meeting.

Maintenance situation of nodes

3.14 **Appendix E** to this part of the report shows statistics obtained during 2020 concerning support provided, breakdowns and availability of REDDIG.

Transfer of the Bogota REDDIG node

3.15 The Meeting took note that the material sent for the transfer of the REDDIG node in Bogota had already been cleared from customs and was available at Aerocivil's premises for the performance of the service.

3.16 The representative of Colombia expressed concern about the weight of the material to be installed, since the information obtained was that the location planned for the installation would not withstand a weight of more than 700 kg, and the material provided exceeded 1000 kg.

3.17 On this issue, the Secretariat noted that INEO/ENGIE, the company that would perform the service, had already been informed that the material had cleared customs, and that it was rescheduling its activities, taking into account the restrictions caused by the pandemic. Regarding the installation site, at the next coordination meeting, the company would express its opinion about the possibility of installing the antenna elsewhere.

Additional ground network nodes (MPLS)

3.18 The Meeting took note of the implementation of the additional nodes of the FAA (United States) in Atlanta and Salt Lake City, and of the P1/AMHS interconnections established in December between Atlanta - Brasilia and Atlanta - Lima.

3.19 This is a real milestone in the Region that undoubtedly contributes to the attainment of all the objectives aimed at attaining high standards in civil aviation services.

Ground network upgrade

3.20 The Meeting took note of the successful bandwidth upgrade from 256 kbps to 1 Mbps in all the nodes of the ground network (MPLS).

REDDIG II phone directory

3.21 As every year, the REDDIG Administration requires that focal points update the (ATS and administrative) telephone directory when modifications are needed. In this regard, the Meeting was reminded that this information was subject to the operational documents/letter of agreement between States and that any modification, in addition to being reported to, and coordinated with, the REDDIG administration, had to be incorporated into the official documentation of the States and be notified through the official channels.

Backup of the node configuration

3.22 The network Administrator informed that backups of the configuration of network equipment in each station had been made and kept secure and available in the NCC of Manaus.

Security

3.23 Likewise, the network Administrator noted that the passwords of routers and switches in the stations were changed on an annual basis for continued security and integrity of processes and equipment setups. In some cases, in which issues in the State LAN were identified, access lists had been implemented. These measures would be strengthened and new measures implemented when firewalls and switches were purchased. In case of any intervention by the local technical staff, it must be notified to the NCC, describing their activities and requesting access.

3.24 The Secretariat noted that the Technical Cooperation Bureau (TCB) was conducting the process for the procurement of firewall equipment, as set out in Conclusion RCC/22-4 of the Coordination Committee of Regional Project RLA/03/901. It should be noted that the purpose of the firewalls is to provide security, standardise equipment, and replace edge routers in each node.

Solar explosions

3.25 The Meeting took note that a process was followed every year to report solar explosions affecting the satellite network. This phenomenon occurs twice a year and is avoided thanks to the geographical redundancy of the Manaus and Ezeiza NCCs, and to the existence of the (MPLS) ground network.

REDDIG II TRAINING PROGRAMME

3.26 The Meeting took note that, as a result of the pandemic, the following planned training activities could not be completed in 2020:

a) **Recurrent course on REDDIG operation and maintenance**:
The REDDIG Administrator normally provides this training during annual visits to the nodes, but this was not possible due to COVID-19 restrictions;

b) **Course on security policies and firewall configuration and Advanced course on firewall management and monitoring**:
Both training activities could not be fulfilled due to COVID-19, which especially affected the bidding process.

c) **Training for the Manaus NCC staff on the analysis of IP packages using sniffer (RADAR, AMHS, etc)**:
This activity could not take place due to restrictions related to COVID-19.

3.27 Regarding RTO/09, it was supposed to be held in Cochabamba (Bolivia), but was put on hold until allowed by the pandemic. The Secretariat consulted the representatives of Bolivia on their interest in still hosting the event, which they responded affirmatively, for a tentative date in October 2021. The Secretariat will coordinate with the Bolivian administration for the conduction of the RTO/09 meeting.

REDDIG II OPERATION AND ANALYSIS OF THE IMPLEMENTATION OF NEW SERVICES

Internet access for Manaus NCC staff

3.28 The Secretariat had requested the Brazilian administration to provide access to a *wifi* or similar network so that staff working at the NCC could use instant messaging (WhatsApp, Signal, Telegram, etc.). This tool has greatly facilitated coordination throughout this period of pandemic. Currently, all NCC staff, including the Administrator, use their own mobile telephony service to meet this need.

3.29 The representative of Brazil asked if this functionality had been previously available for NCC staff. The network Administrator noted that the capacity was in place, but at one point, access to the *wifi* network had been cancelled for NCC staff.

3.30 The representative of Brazil would study the possibility of providing Internet access to the Manaus NCC staff through the CINDACTA IV *wifi* network.

Preventive maintenance

3.31 The Meeting took note that, due to the pandemic, the preventive maintenance programme planned for 2020 could not be completed. Nevertheless, the intention is to fulfil this task in 2021, with special attention to the RF part of each station. Only remote activities involving the software were carried out. **Appendix F** to this part of the report shows the preventive maintenance programme to be completed in 2021.

Visit to the nodes

3.32 Likewise, the Meeting was informed that the visits to two REDDIG II nodes by the network Administrator could not be performed. Given the possibility of carrying out this activity in 2021, the intention was to schedule missions to the nodes of Guayaquil and Piarco.

Improving the performance of REDDIG II

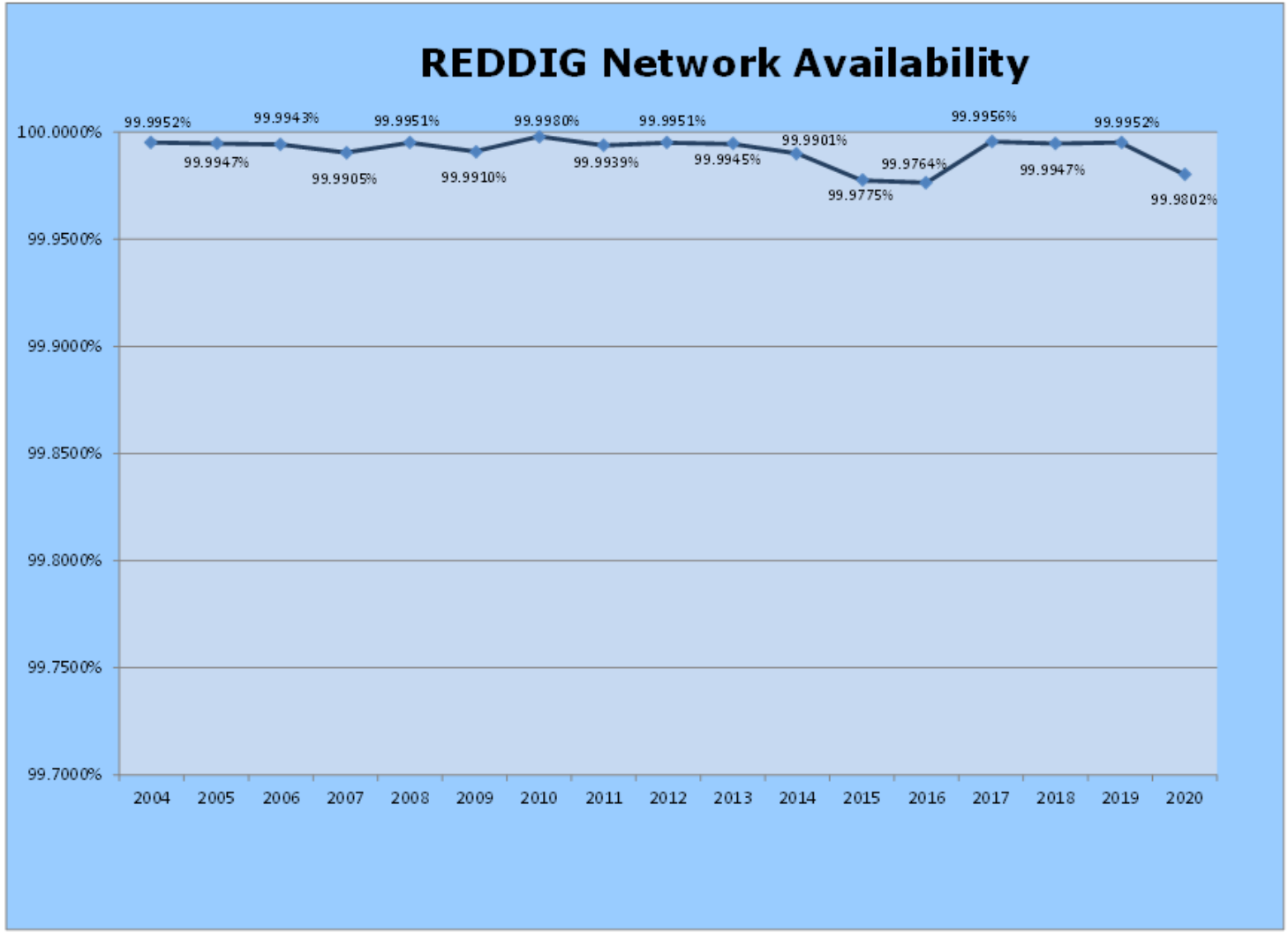
3.33 The Secretariat underlined that work was being done on a platform based on the ground network, taking into account known factors (cost/benefit, delay, jitter, throughput, latency, error rate, interaction of factors, etc.). This had led to rethinking whether the satellite network should continue to be considered as the primary medium. For this reason, in some cases, all services have been tested to be carried over the ground network as the primary medium, with very positive results.

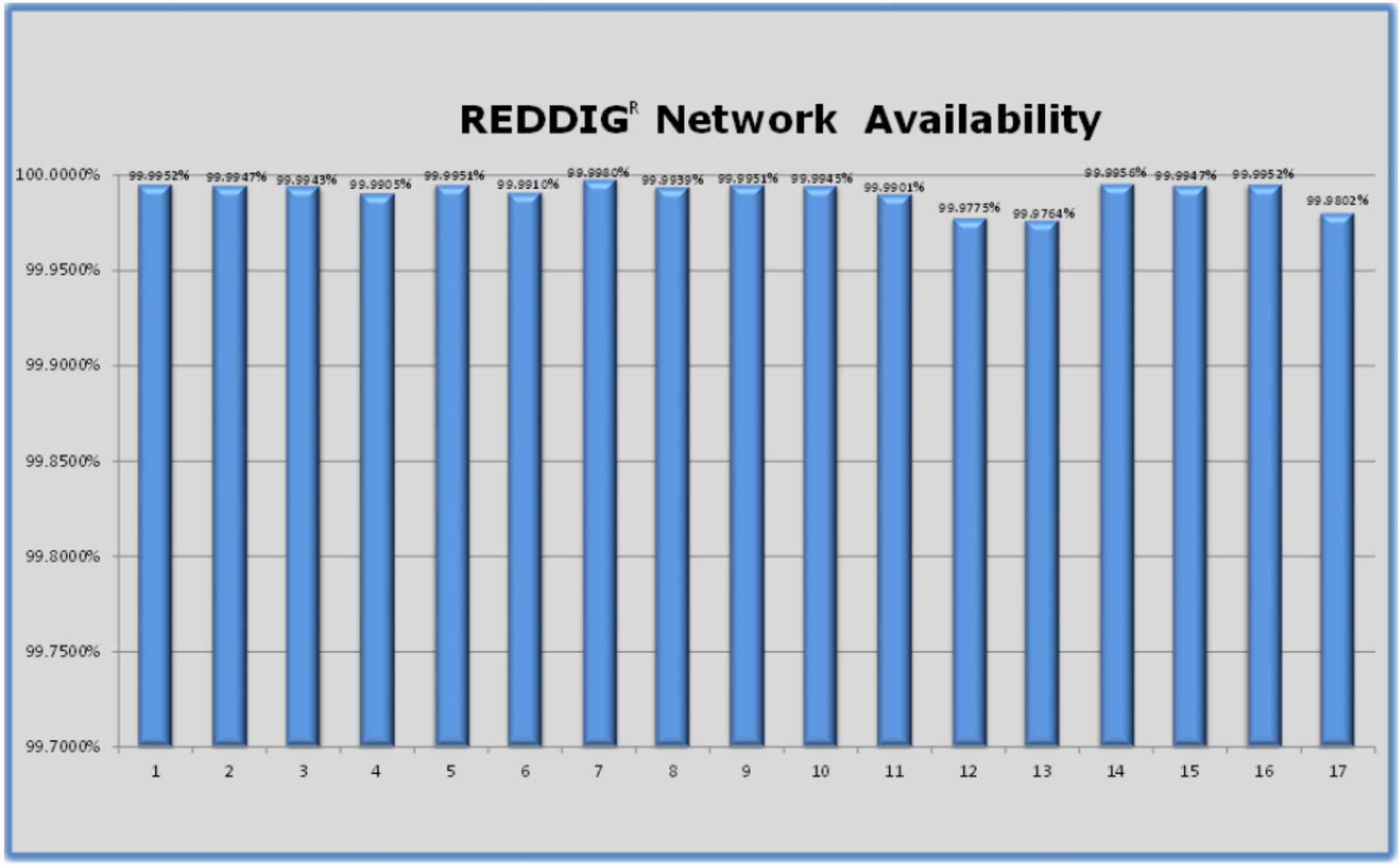
3.34 It is important to mention that the implementation of a work schedule that involves leaving only one chain of the satellite station operating in order to preserve outdoor and indoor equipment and extend the operation of the stations, is still pending. This could not be done in 2020 because of pending upgrades of the ground network, migration of transponder of the satellite provider, uncertainty, and different issues caused by the pandemic. These activities must be carried out in 2021.

3.35 Similarly, concern was again expressed to the States about the corrosion of antennae. This will be a recurring issue as it affects and will affect the performance of the stations. It is the responsibility of the local administrations to maintain the metallic infrastructure, ducts, cables and external equipment of the REDDIG II nodes.

APÉNDICE / APPÉNDIX A

Disponibilidad de la REDDIG / REDDIG Availability




REDDIG® Network Availability
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APPENDIX B

Movimientos Logísticos / Logistic Movements

REGISTRO DE SERVICIOS - ADMINISTRACIÓN Y LOGÍSTICA DE EQUIPOS Y PARTES						
EVENTO	NODO	EQUIPO/PARTE	DOC EMBARQUE	ENVIO DE	HASTA	GASTOS ENVIO US$
OR-20001	SVMI	IDU 1070	SAMRO-83	Lima RO	Maiquetía, Venezuela	p/Venezuela (REDDIG)
OR-20002	SBMN	ODU 80	SAMRO-84	Lima RO	CISCEA, Brasil	p/Brasil (REDDIG)
OR-20003	SBRF	ODU 80	SARO	Lima RO	CISCEA, Brasil	p/Brasil (REDDIG)

APÉNDICE /APPENDIX C

Inventario de repuestos existentes en el depósito de la Oficina Regional / Stock of existing spare parts in the Regional Office depot

INEO-ES Price List for Procurement of Satelitte Equipment Spare Parts

Description	Qty	Unit Price US$	Total Price US$
LAN Port Server			
NPORT 5610-8	1	1 230,00	1 230,00
10 MHz Redundancy Equipment			
BIAS-T switch (10MHz redundancy system)	1	2 125,00	2 125,00
Passive DC-Block (Power injector 10MHz pass)	4	542,00	2 168,00
Passive DC-Block (RF Bandwidth)	4	130,00	520,00
Passive Splitter (2 Port RF Bandwidth)	2	265,00	530,00
Spare Parts for HPE PROLIANT DL160 Server			
Fans for HPE PROLIANT DL160 Server	10	124,00	1 240,00
Hot-Plug HP Midline HDD 500GB 7.2k SATA	2	405,00	810,00
Tx 1+1 switching system	1	8 707,00	8 707,00
Rx 1+1 switching system	1	9 523,00	9 523,00
Waveguide Switch (CPRG flange) + Control cable	1	3 528,00	3 528,00
LNB with external 10MHz reference	1	804,00	804,00
RF Filter (for LNB path)	1	676,00	676,00
N-Female Type coaxial connector (for CNT/LMR-400 Type coaxial cable)	4	45,00	180,00
N-Male Type coaxial connector (for CNT/LMR-400 Type coaxial cable)	4	44,00	176,00
N-Male Type coaxial connector (for CNT/LRM-600 Type coaxial cable)	4	67,00	268,00

	Desc:	Repuestos Reddig					
Ubicación	Caja#	Item	Descripcion	Proveedor	Modelo	Cantidad	Numero de Serie
Lista A			REPUESTOS REDDIG II ENVIADOS DESDE BRASIL				
			EQUIPOS Y PIEZAS DE REPUESTO EN GENERAL				
C2	2	2.1	ROUTER Cisco 2901	CISCO	2901	1	FCZ1719C1BR
		2.2	Two port Async-Sync Serial WAN interface card	CISCO	HWIC	1	FOC17173XNG
		2.3	Two port Async-Sync Serial WAN interface card	CISCO	HWIC	1	FOC17427CCS
		2.4	two port voice interface card FXS	CISCO	VIC3	1	FOC16450PGJ
C2	3	3.1	ROUTER Cisco 2911	CISCO	2911	1	FCZ175060LX
		3.2	24 PORT RJ45 PATCH PANEL	CISCO		1	-
		3.3	01 TARJETA EVM-HD TELEFONICO	CISCO		1	-
		3.4	Cable serial CISCO V.24 DTE DB25	CISCO		1	-
		3.5	Cable serial CISCO V.24 DCE DB25	CISCO		1	-
		3.6	Cable telefonico RJ11 cross over	CISCO		1	-
		3.7	High density 8 port analog and digital extension module	CISCO		1	FOC180475BH
C2	4	4.1	ROUTER Cisco 2901	CISCO		1	FCZ175092L8
		4.2	Two port Async-Sync Serial WAN interface card	CISCO		1	FOC17427CQP
		4.3	two port voice interface card FXS	CISCO		1	FOC17224X7C
		4.4	Cable serial CISCO V.24 DCE DB25	CISCO		1	-
A2	5	5.1	Rx 1+1	Terrasat		1	TE6010431
		5.2	Handheld Terminal with 2 m cable	Terrasat		1	439318
		5.3	Accesorios para RX 1+1	Terrasat		1	-
		5.4	Cables de energia	Terrasat		2	-
		5.5	Cable Coaxial de RF con conectores tipo N 6m.	Terrasat		1	-
		5.6	Cable de Gestion para LNB	Terrasat		1	-
		5.7	Cable Coaxial de RF con conectores tipo N 30 cm.	Terrasat		2	-
A3	6	6.1	Wave Guide Switch for LNB	Logus		1	0244
		6.2	LNB Banda C			1	2386
		6.3	LNB Banda C			1	2381
B2	7	7.1	Switch Netgear de 26 Puertos	Netgear		1	39223C5U0036F
		7.2	Cable USB			1	-
B2	8	8.1	Switch Netgear de 26 Puertos	Netgear		1	39223C5U00378

D1	10	10.1	Manuales de Curso de Rio de Janeiro				-
D2	11	11.1	Documentos Oficiales REDDIG II				-
D1	12	12.1	Manuales REDIG II				-
D1	13	13.1	Documentos Oficiales REDDIG II				-
			EQUIPOS Y PIEZAS DE REPUESTO EN GENERAL				
B3	14	14.1	Tarjeta Serial MOXA de 8 Puertos RS-232 PCI	MOXA		1	TADBB1062386
B3	15	15.1	Disco Duro Externo IOMEGA NAS 2 Tb	LENOVO		1	V9AP370005
		15.2	Fuente para Disco Duro	LENOVO		1	-
		15.3	Manuales	LENOVO		1	-
B3	16	16.1	UPS Eaton Eclipse ECO 1200 VA	EATON		1	G030D43420
B3	16	16.1	UPS Eaton Eclipse ECO 1200 VA	EATON		1	G030D43420
B3	17	17.1	Cable Multipuerto Moxa 8 puertos	MOXA		1	-
		17.2	Cable Cisco V.24 DTE	CISCO		5	-
		17.3	Cable Cisco V.24 DCE	CISCO		11	-
		17.4	Cable DB25 Male-Female			6	-
		17.5	Cable Patch Cord ethernet RJ45			6	-
C3	18	18.01	Cable Multiple Cisco 8 puertos ethernet con adaptadores a DB25	CISCO		2	-
		18.02	Two port Async-Sync Serial WAN interface card	CISCO		1	FOC17173XSA
		18.03	Four port Async-Sync Serial HWIC	CISCO		1	FOC17056CG2
		18.04	Four port Async-Sync Serial HWIC	CISCO		1	FOC17405CTK
		18.05	Eight port Async interface card	CISCO		1	FOC174673WU
		18.06	Two Port Voice Interface Card FXS.	CISCO		1	FOC1747821Q
		18.07	Two Port Voice Interface Card FXS.	CISCO		1	FOC18073ZCY
		18.08	Two Port Voice Interface Card FXS.	CISCO		1	FOC1747823M
		18.09	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WJ8
		18.10	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WD0
		18.11	Two Port Voice Interface Card FXS.	CISCO		1	FOC174781UF
		18.12	Two Port Voice Interface Card FXS.	CISCO		1	FOC18073ZJL
		18.13	Two Port Voice Interface Card FXS.	CISCO		1	FOC17461BL9
		18.14	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WGP
		18.15	Two Port Voice Interface Card FXS.	CISCO		1	FOC18158WH7
		18.16	Four Port Voice Interface Card FXS	CISCO		1	FOC1747523F

		18.17	Four Port Voice Interface Card FXS	CISCO		1	FOC174752RT
		18.18	Four Port Voice Interface Card FXS	CISCO		1	FOC174751RP
		18.19	Four Port Voice Interface Card FXO	CISCO		1	FOC1746833R
		18.20	One Port 2nd Gen Multiflex trunks Voice Wan Interface Card E1/T1	CISCO		1	FOC17451Q66
		18.21	High Density voice/fax external Module	CISCO		1	FOC17443E08
		18.22	Two Port 2nd Gen Multiflex trunks Voice Wan Interface Card E1/T1	CISCO		1	FOC17479P39
		18.23	Eight port Async-Sync interface card	CISCO		1	FOC17446GYD
C3	19	19.1	Module Adapter for SM Slot on CI	CISCO		1	FOC17516V0F
C3	20	20.1	Module Adapter for SM Slot on CI	CISCO		1	FOC17516UU5
B1	21	21.1	Impresora Laser Jet Pro 400 M401dn	Hewlet Packard		1	VNH4222944
		21.2	Cables de Energia			1	-
A3	22	22.1	8 Port Device Server 10/100 eth	MOXA		1	TADAE101113
B1	23	23.1	RSS 16 SLOT 4U Chasis	DATAPROBE		1	115010100300024
		23.2	Power Module	DATAPROBE		1	193008400000128
		23.3	Network Control Card	DATAPROBE		1	134006500400093
		23.4	Dual 8 wire Module Jack A/B card	DATAPROBE		1	111020200200892
		23.5	Dual 8 wire Module Jack A/B card	DATAPROBE		1	111020200200893
		23.6	D25 A/B Card	DATAPROBE		1	111020000100593
		23.7	D25 A/B Card	DATAPROBE		1	111020000100594
		23.8	D25 A/B Card	DATAPROBE		1	111020000100643
		23.9	D25 A/B Card	DATAPROBE		1	111020000100667
B1	24	24.1	RSS 16 SLOT 4U Chasis	DATAPROBE		1	115010100300011
		24.2	Power Module	DATAPROBE		1	193008400000115
		24.3	Network Control Card	DATAPROBE		1	134006500400080
		24.4	Dual 8 wire Module Jack A/B card	DATAPROBE		1	11020200889
		24.5	Dual 8 wire Module Jack A/B card	DATAPROBE		1	11020200890
		24.6	Dual 8 wire Module Jack A/B card	DATAPROBE		1	11020200891
		24.7	D25 A/B Card	DATAPROBE		1	111020000100629
		24.8	D25 A/B Card	DATAPROBE		1	111020000100630

C3	25	25.1	High density 8 port analog and digital extension module	CISCO		1	FOC174049WM
		25.2	High density 8 port analog and digital extension module	CISCO		1	FOC174049YH
		25.3	Cable de consola de Cisco			2	-
		25.4	KVM Extender			1	F3D46058D140097
		25.5	Convertidor USB - Serial			1	-
		25.6	Telefono IP DEPAEPE	DEPAEPE		1	PE02001120001826
		25.7	Mouse Optico USB Negro			1	-
		25.8	Regleta electrica con 05 tomas			2	-
		25.9	Teclado Estandar K120	Logitech		1	-
B2	26	26.1	Filtro RF	NORSAT		1	C001128132
		26.2	Filtro RF	NORSAT		1	C001128140
		26.3	Barras de Anclaje de acero			3	-
		26.4	Bloques de anclaje de plastico negro			6	-
		26.5	Tornillos de sujecion de acero			20	-
		26.6	Blank panel para RSS			3	-
		26.7	Regleta electrica con 05 tomas			2	-
		26.8	Adaptadores Cambia genero DB25			15	-
C1	27	27.1	Pantalla LCD 27"	SAMSUNG		1	0293H4MDB00709
C1	28	28.1	HP ProLiant DL160 Gen8 Base - Server	Hewlet Packard		1	CZJ34500JZ
C2	30	30.1	Router Cisco 2901	CISCO	2901	1	FCZ175092KM
C2	31	31.1	Router Cisco 2901	CISCO	2901	1	FCZ170391DX
C2	32	32.1	Router Cisco 2901	CISCO	2901	1	FCZ170592LK
A3	61	61.1	Firewall NETGEAR Prosafe VPN Dual Wan Gigabit	Netgear		1	2CH23A3W501B3

APÉNDICE / APPENDIX D

Puntos Focales REDDIG II / REDDIG II Focal Points

STATE / ESTADO	Name / Nombre	Position/ Cargo	E-Mail / Correo-e	Telephone / Teléfono	Address / Dirección
ARG	María Malena Reinoso, EANA	Jefa Departamento Comunicaciones – Gerencia CNS	mreinoso@eana.com.ar	(5411) 4320-2384	EANA S.E. Av. Rivadavia 578, Piso 5 Buenos Aires, Argentina
	Facundo Gatti, EANA	Gerente Ejecutivo Sistemas y CNS	fgatti@eana.com.ar	(5411) 4320-2384	EANA S.E. Av. Rivadavia 578, Piso 5 Buenos Aires, Argentina
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	Valdileide Freire de Araújo	Asesor de Comunicaciones DECEA	valdileidevfa@decea.mil.br	(5521) 21016658	Avenida General Justo, 160 Rio de Janeiro, Brasil
BOL	Javier Osvaldo Campos Gonzáles, DGAC	Inspector CNS	jcampos@dgac.gob.bo	(5912) 7152-0131	
	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

STATE / ESTADO	Name / Nombre	Position/ Cargo	E-Mail / Correo-e	Telephone / Teléfono	Address / Dirección
CHI	Christian Vergara Leyton, DGAC	Supervisor de Mantenimiento Técnico Centro de Control de Santiago	cvergara@dgac.gob.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.gob.cl	(562) 836-4005; (562) 836-4011; (562) 644-8345	Avenida San Pablo 8411, Comuna de Pudahuel, Santiago, Chile
COL	Andrés Colmenares	Coordinador Grupo de Comunicaciones y Redes Aeronáuticas - Dirección de Telecomunicaciones y Ayudas a la Navegación Aérea	andres.colmenares@aerocivil.gov.co	(571) 296-2038	Aeropuerto Internacional El Dorado, Av. El Dorado N° 112-09 Edif. C.N.A. (Centro Nacional de Aeronavegación)
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ECU	Washington Quinde	Analista CNS para la Navegación Aérea 1	washington.quinde@aviacioncivil.gob.ec; ing.washington.quinde@gmail.com	(593) 2 2947400 ext. 2141-97 0988448196	Av. De las Américas, Edif. Servicio para la Navegación Aérea, Guayaquil
FRA	Serge Cupoli	Jefe de la Subdivisión Técnica	serge.cupoli@aviationcivile.gouv.fr	(594) 694-403331	Aviation Civile, Aeroport de Cayenne Félix Eboué, 97351 Matoury, Guyane Francaise
GUY	Mortimer Salisbury, Guyana Civil Aviation Authority	Manager CNS and Technical Support	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

STATE / ESTADO	Name / Nombre	Position/ Cargo	E-Mail / Correo-e	Telephone / Teléfono	Address / Dirección
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	Juan Felix Estigarribia, DINAC	Gerente de Telecomunicacioens y Electronica	jfe2406@gmail.com	(59521) 758-52019, mobile +595971627227	
	Alexander Aguayo, DINAC	Jefe de Dpto. Comunicaciones	alexanderaguayo97@gmail.com	(595-21) 758-5201, Mobile +595981567951	
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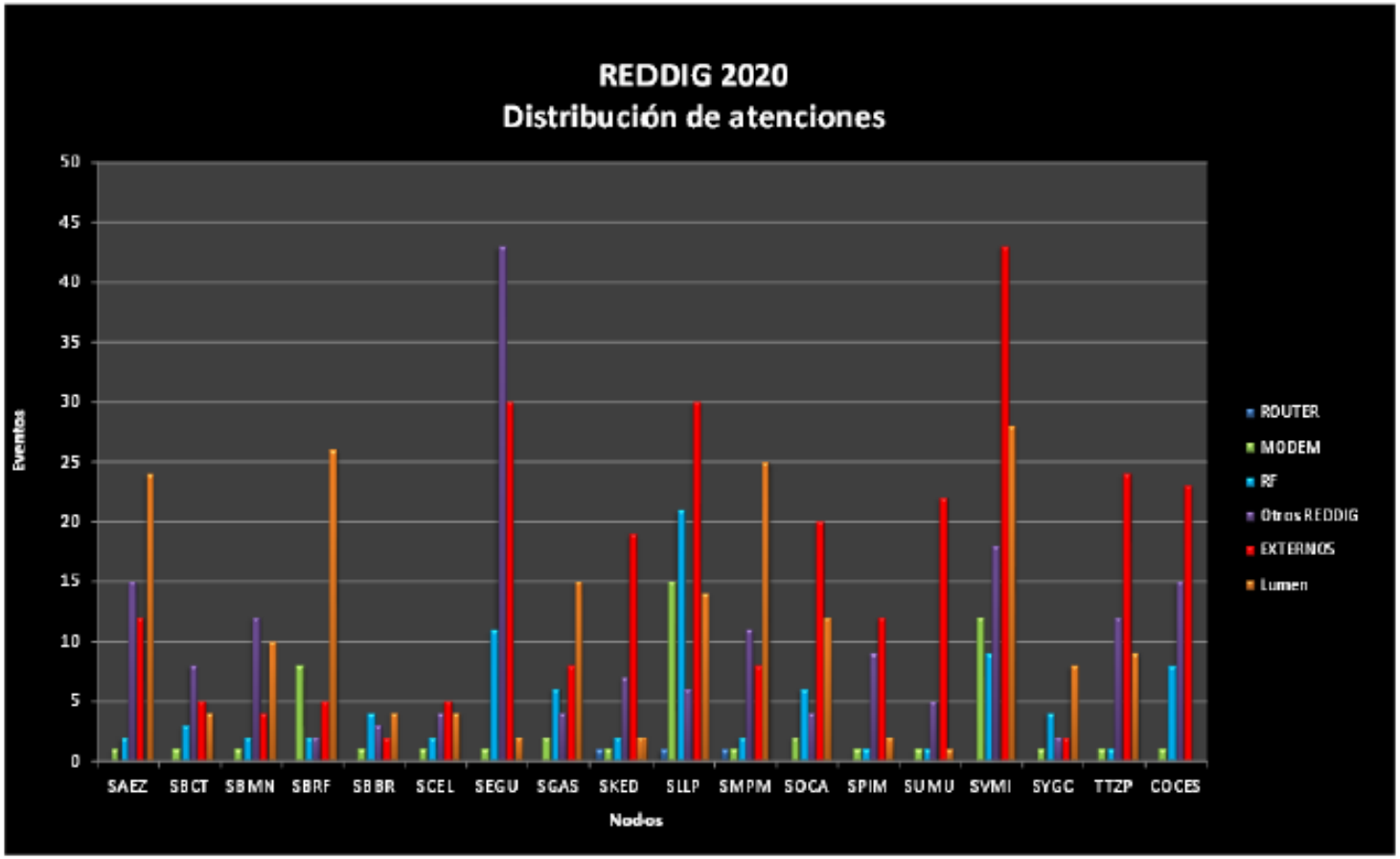
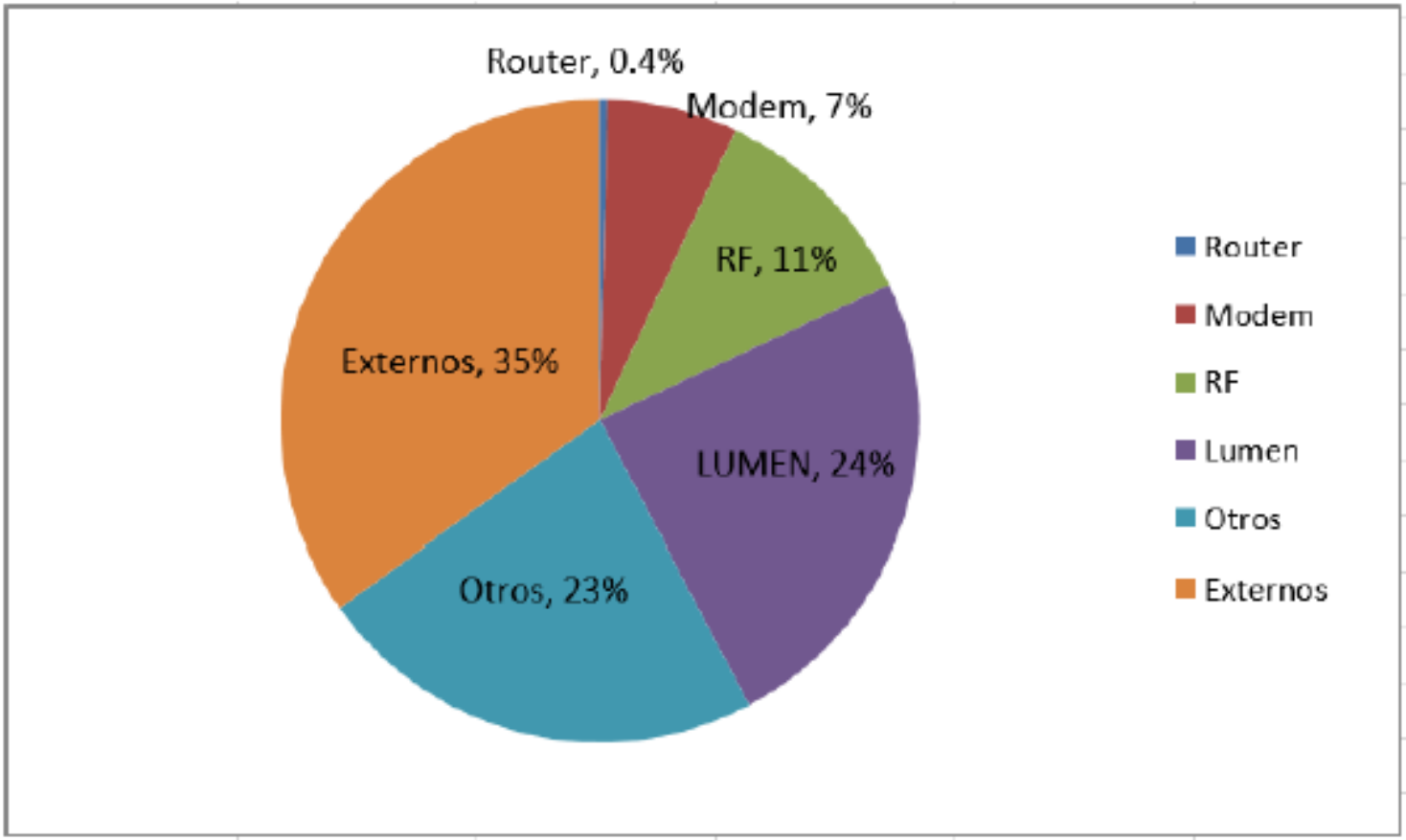
SUR	Cicilson Jurgen	Acting Chief of CADSUR CNS Division	jurmaja@hotmail.com and cns@cadsur.sr	(597) 531288; (597) 498898; (597) 325123, Mobile: (597) 8792810	J. A. Pengel International Airport, Zanderij, district Para, Zorg en Hoop Airport, Paramaribo
	Kofi Orlando	CNS Supervisor	oomken80@gmail.com	(597) 531288; (597) 498898; (597) 325123, Mobile: (597) 8531923	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		

STATE / ESTADO	Name / Nombre	Position/ Cargo	E-Mail / Correo-e	Telephone / Teléfono	Address / Dirección
URU	Miguel Vera, DINACIA	Técnico de la División Comunicaciones	miguelvera@adinet.com.uy	(5982) 6040408, Ext. 4520	Aeropuerto Internacional de Carrasco Av. Wilson Ferreira Aldunate 253 Paso Carrasco, Canelones
	Ricardo Clavijo, DINACIA	Director de Electrónica	rclavijo@dinacia.gub.uy		
VEN	Jarumy Castillo, INAC, INAC	Gerente SNA	ja.castillo@inac.gob.ve	(58212) 355-2143; (58424) 354-9924	Edificio ATC, 2do piso, Dpto. de Comunicaciones, Maiquetía, Edo. Vargas, Venezuela

APÉNDICE / APPENDIX E

Atenciones y Averías / Attentions and Faults





*se observa que el 58% de las atenciones obedecieron a "Otros" y "Externos"

APÉNDICE / APPENDIX F

Tareas de Mantenimiento Preventivo REDDIG 2021 / Preventive Maintenance Tasks REDDIG 2021

Preventive maintenance tasks REDDIG 2021

04-mar-2021

http://icao.int

REDDIG Administration - CNS - ICAO SAM

Encargado del proyecto	
Fechas de inicio y fin del proyecto	05-abr-2021 - 11-dic-2021
Progreso	0%
Tarea	76
Recursos	0

Tasks scheduled to be developed during the year 2021 at the NCC and REDDIG stations.

Preventive maintenance tasks REDDIG 2021

04-mar-2021

2

Tarea

Nombre	Fecha de inicio	Fecha de fin
NCC	12/04/21	10/12/21
Routers	12/04/21	11/06/21
Backup settings	12/04/21	30/04/21
Check settings	3/05/21	21/05/21
Check diagrams and wiring	24/05/21	11/06/21
Check identifications	24/05/21	11/06/21
Switches	7/06/21	25/06/21
Backup settings	7/06/21	11/06/21
Check settings	14/06/21	18/06/21
Check diagrams and wiring	21/06/21	25/06/21
Check identifications	21/06/21	25/06/21
AMHS -AFTN - AIDC Check	28/06/21	2/07/21
ATS - ADMIN - MANT Check	5/07/21	9/07/21
Check WUG	12/07/21	16/07/21
Outside (ADS-C, otros)	19/07/21	23/07/21
Training	12/04/21	10/12/21
INDOOR DEVICES CHECK	26/07/21	6/08/21
Photographic record	26/07/21	6/08/21
Diagrams comparison	26/07/21	6/08/21
Backup	3/08/21	6/08/21
Servers Local y Global	9/08/21	13/08/21
GPS	16/08/21	20/08/21
MODEM SKWAN A	23/08/21	27/08/21
MODEM SKYWAN B	30/08/21	3/09/21
LINE-UP-MANAGER	6/09/21	10/09/21
ANTENA	13/09/21	5/11/21
Photographic record	13/09/21	17/09/21
Diagrams comparison	20/09/21	24/09/21
Backup	20/09/21	24/09/21

Preventive maintenance tasks REDDIG 2021

04-mar-2021

3

Tarea

Nombre	Fecha de inicio	Fecha de fin
LNB A	27/09/21	1/10/21
LNB B	4/10/21	8/10/21
RX 1+1	11/10/21	15/10/21
IBUC A	18/10/21	22/10/21
IBUC B	25/10/21	29/10/21
TX 1+1	1/11/21	5/11/21
CHECK SERIAL NUMBERS AND INVENTORY STATUS	12/04/21	10/06/21
LUMEN	8/11/21	12/11/21
Devices identification	8/11/21	12/11/21
Check cables	8/11/21	12/11/21
Nodos	5/04/21	5/11/21
Routers	12/04/21	30/04/21
Verify physical and logical configurations	12/04/21	16/04/21
Check diagrams and wiring	12/04/21	23/04/21
Check identifications	19/04/21	30/04/21
SWITCHES	3/05/21	28/05/21
Verify physical and logical configurations	3/05/21	7/05/21
Check Diagrams and wiring	5/05/21	21/05/21
Check identifications	24/05/21	28/05/21
ATS -ADMIN - MANT	31/05/21	4/06/21
AMHS - AFTN - AIDC Check	7/06/21	11/06/21
Check WUG	14/06/21	18/06/21
Outside	21/06/21	25/06/21
INDOOR DEVICES CHECK	5/04/21	30/04/21
Photographic record	5/04/21	9/04/21
Diagrams comparison	5/04/21	16/04/21
BackUp	19/04/21	30/04/21
Server NMS Local	28/06/21	2/07/21

Preventive maintenance tasks REDDIG 2021

04-mar-2021

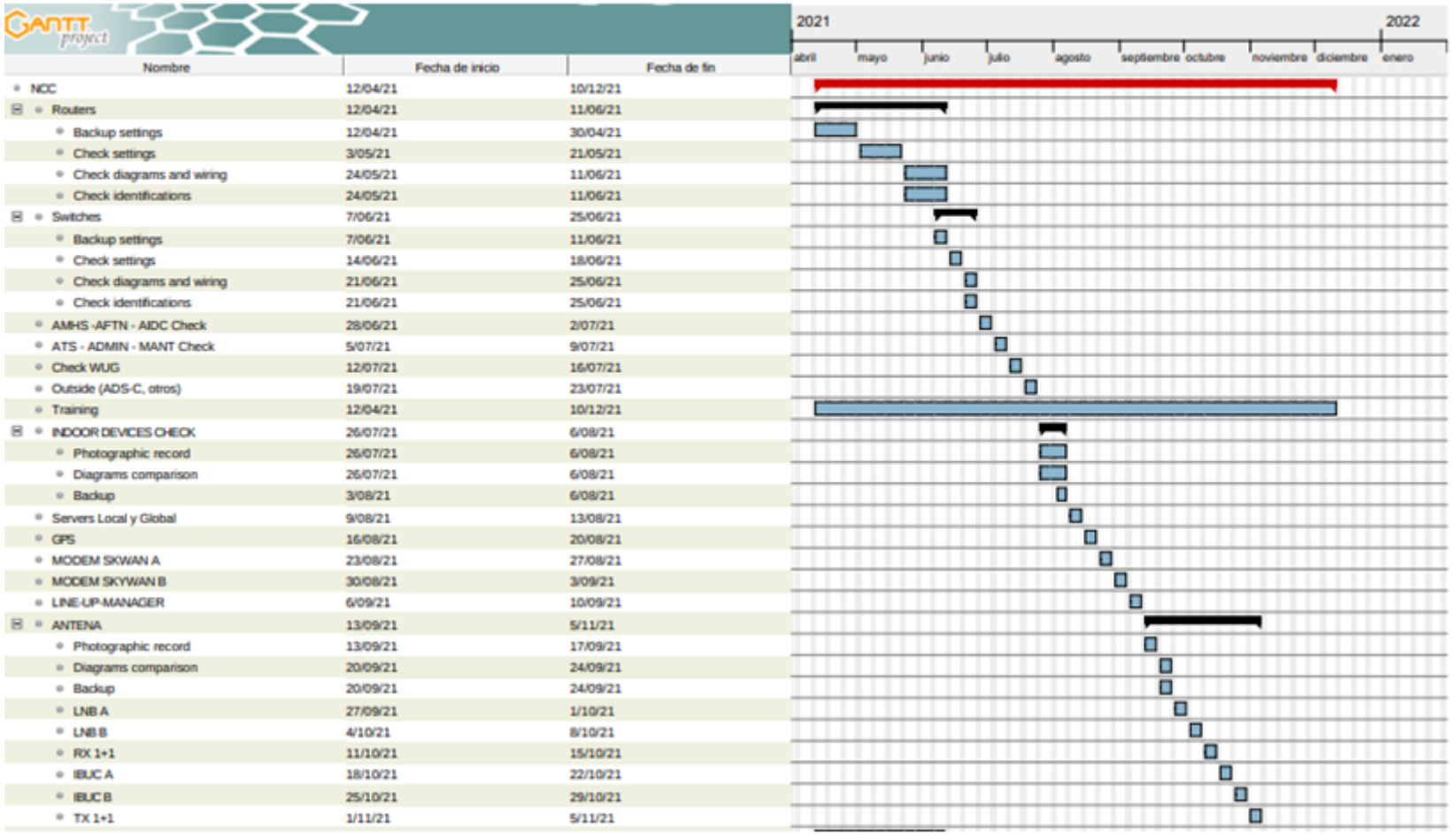
4

Tarea

Nombre	Fecha de inicio	Fecha de fin
GPS	5/07/21	9/07/21
MODEM A	12/07/21	16/07/21
MODEM B	19/04/21	23/04/21
LINE-UP-MANAGER	26/07/21	30/07/21
ANTENA	13/09/21	22/10/21
Photographic record	13/09/21	17/09/21
Antenna cleaning	20/09/21	24/09/21
Diagrams comparison	13/09/21	24/09/21
Backup	27/09/21	1/10/21
LNB A	4/10/21	6/10/21
LNB B	6/10/21	8/10/21
RX 1+1	11/10/21	13/10/21
IBUC A	13/10/21	15/10/21
IBUC B	18/10/21	20/10/21
TX 1+1	20/10/21	22/10/21
CHECK SERIAL NUMBERS AND INVENTORY STATUS	25/10/21	5/11/21
LUMEN	2/08/21	13/08/21
Identify devices	2/08/21	6/08/21
Verify cables	9/08/21	13/08/21

Preventive maintenance tasks REDDIG 2021

Diagrama de Gantt



Nombre	Fecha de inicio	Fecha de fin
NCC	12/04/21	10/12/21
Routers	12/04/21	11/06/21
Backup settings	12/04/21	30/04/21
Check settings	3/05/21	21/05/21
Check diagrams and wiring	24/05/21	11/06/21
Check identifications	24/05/21	11/06/21
Switches	7/06/21	25/06/21
Backup settings	7/06/21	11/06/21
Check settings	14/06/21	18/06/21
Check diagrams and wiring	21/06/21	25/06/21
Check identifications	21/06/21	25/06/21
AMHS -AFTN - AIDC Check	28/06/21	2/07/21
ATS - ADMIN - MANT Check	5/07/21	9/07/21
Check WUG	12/07/21	16/07/21
Outside (ADS-C, otros)	19/07/21	23/07/21
Training	12/04/21	10/12/21
INDOOR DEVICES CHECK	26/07/21	6/08/21
Photographic record	26/07/21	6/08/21
Diagrams comparison	26/07/21	6/08/21
Backup	3/08/21	6/08/21
Servers Local y Global	9/08/21	13/08/21
GPS	16/08/21	20/08/21
MODEM SKWAN A	23/08/21	27/08/21
MODEM SKYWAN B	30/08/21	3/09/21
LINE-UP-MANAGER	6/09/21	10/09/21
ANTENA	13/09/21	5/11/21
Photographic record	13/09/21	17/09/21
Diagrams comparison	20/09/21	24/09/21
Backup	20/09/21	24/09/21
LNB A	27/09/21	1/10/21
LNB B	4/10/21	8/10/21
RX 1+1	11/10/21	15/10/21
IBUC A	18/10/21	22/10/21
IBUC B	25/10/21	29/10/21
TX 1+1	1/11/21	5/11/21

Agenda Item 4: **Work plan for 2021**

4.1 The following Working Paper <was presented for this agenda item:

- WP/04 – *Activities foreseen for 2021* (Presented by the Secretariat).

4.2 The Meeting discussed the following activities to be carried out in 2021:

a) New REDDIG II activities and services;
b) Operation of REDDIG II; and
c) 2021 training programme.

NEW REDDIG II ACTIVITIES AND SERVICES

REDDIG III

4.3 The Meeting received information on the service life expectancy of the satellite network, planned for 10 years and taking into account the recurring failures in some particular equipment. It is reiterated on the need to begin analyzing the design of a REDDIG III.

4.4 The establishment of an Ad-Hoc group discussing a draft outlined by the next 4 years should be resumed. Analyze new solutions, new technologies, and in particular to glimpse future needs in order to define a network to cover them (Conclusion RCC/24-2 Conformation of Ad-Hoc Group REDDIG III).

4.5 Actions to allow a single chain to be put up and running must also be resumed in order to preserve the life of satellite station equipment. The Administrator shall present a schedule to be implemented this year, which sets the time of shutdown of the equipment, maintenance phases and alternation of operation (which they work alternately every 3 or 4 months).

New contract with the ground network provider

4.6 The Meeting noted that, upon the signing of a new contract with the ground network provider (LUMEN) for a period of two years, with the option of renewal for two more years, the new upgrades will be worked on (on most nodes will take from 1 Mbps current to 5 Mbps), topology modifications (as is the case with Maiquetía headquarters), compromised availability on all 99.7% nodes, and new nodes installed; as shown in **Appendix A** to this part of the Report.

4.7 Argentina has confirmed its intention to implement a REDDIG II Ground Network (MPLS) node in Johannesburg and Madrid. Brazil and Venezuela also expressed interest in the implementation of the Madrid node, to meet the requirements of constant communication in the Regional Plan of Air Navigation (AMHS P1 interconnections between Brasilia-Madrid and Caracas-Madrid).

4.8 Secretariat reported that it would send letters with installation values (NRC) and monthly service costs (MRCs) for these States to formalize authorization for the procurement of the above nodes.

4.9 In this regard, the following conclusion was formulated:

<table>
<tr><td>CONCLUSION RCC/26-1</td><td>IMPLEMENTATION OF REDDIG II GROUND NETWORK (MPLS) NODES IN STATES OF OTHER REGIONS</td></tr>
<tr><td>The Secretariat
Take the necessary information for the procurement and installation of REDDIG II ground network (MPLS) nodes in states in other regions, as described below:

a) A node in Madrid (Spain) in the interest of Argentina, Brazil and Venezuela, to implement, initially, AMHS communications with the COM Center of Madrid. The cost will be shared by the three States concerned; and

b) A node in Johannesburg, South Africa, in Argentina's interest for the establishment of voice and data communications with the FIR Johannesburg ANSP. The cost will be charged in Argentina's annual fee.</td><td>Expected impact:
☐ Political / Global
☒ Interregional
☒ Economic
☐ Environmental
☒ Technical/Operational</td></tr>
<tr><td colspan="2">Why: To provide better interregional communications with African and European States, which have planned communications requirements with Participating States of the RLA/03/901 Regional Project.</td></tr>
<tr><td>When: Inmediatly</td><td>Status: Approved in the RCC/26 Meeting</td></tr>
<tr><td colspan="2">Who: ☒ States ☒ ICAO SAM Secretariat ☒ Others: ENAIRE y ATNS</td></tr>
</table>

4.10 Chile requested that the Secretariat quote the implementation of a REDDIG II ground network (MPLS) node in New Zealand for potential procurement, with the aim of establishing interconnection of the AMHS COM Centres in Santiago, Chile, and Christchurch, New Zealand. The Secretariat was guided that coordinated information from the node installation site and local contact staff were required to request that the supplier make the quotation.

4.11 Argentina has also expressed the intention to implement an extra node in ARSAT, which will be formalized by correspondence to the South American Regional Office of ICAO (Lima), once the costs for the implementation of this node have been known.

Interconnection of Regional IP networks

4.12 The Meeting was informed that, in 2021, discussions with APAC and EUR were initiated to implement the interconnection of regional IP networks (CRV, PENS and REDDIG II). This task, on the initiative of the SAM Regional Office, will hold meetings with the representatives of the three telecommunications companies: PCCW Global (CRV), British Telecom (PENS) and Lumen (REDDIG II), and with the organizations and States involved (Conclusion RCC/24-3 Interconnection of Regional IP Networks).

4.13 The Secretariat reported that coordination with participants in the CRV regional network of the APAC Region was further ahead. Two teleconferences were held as the last with the participation of the telecommunications providers of the two regional networks: PCCW Global (CRV) and Lumen (REDDIG II).

4.14 The proposal is to implement the interconnection of networks, through the establishment of NNI MPLS (Network-to-Network Interface) between the network infrastructures of telecommunications providers.

4.15 During the last teleconference, held on 24 February 2021, Lumen's representatives stated that they considered it to be a viable and relatively easy proposal to implement, if the two companies were to use their infrastructures in the United States, where there are already established NNI MPLS agreements.

4.16 The two telecommunications providers stayed to hold meetings between their representatives of Hong Kong (PCCW Global), Peru (Lumen) and the United States (of the two companies), to discuss the technical, administrative and financial aspects, with the aim of giving a response to the members of the two networks.

4.17 The discussions for the interconnection of REDDIG II with Europe's regional IP network (PENS) are still in the initial coordination's, without estimating meetings.

OPERATION OF REDDIG II

4.18 Regarding the activities undertaken by 2021 is planned:

- Purchase of REDDIG II spare parts and update of configurations
- Application of the preventive maintenance program
- Visits to REDDIG II nodes
- Transfer of the REDDIG II node of Bogotá
- Installation of additional nodes in Cochabamba, ICAO SAM Office, and Rio de Janeiro
- Implementation of new REDDIG II services
- Continue supporting the interconnections between AMHS systems in the Region and with other Regions.

Requirements to delegates

4.19 Like every year, delegates were requested to do the following:

a) Verify that the stations are registered in the frequency spectrum regulatory bodies, and report on the situation;
b) Update the focal points of the project through an official written communication, addressed to the Regional Office; and
c) The areas responsible for the electrical installations were again encouraged to check the status of the installations, the UPSs of each node, and the grounding system.

4.20 States in a position to acquire spare parts and/or spare equipment for their REDDIG nodes were urged to do so, in consultation with the ICAO Regional Office in order to maintain the homogeneity and availability of the systems in each node.

4.21 States were also requested to make the necessary efforts to improve logistics, in order to avoid the problems that had been arising. These situations threatened the availability of the network, affected other nodes, and could affect the safety of air operations.

4.22 Likewise, States were urged to review the inventory of assets of their aeronautical administration, and if irregularities were identified, to proceed to their resolution.

2021 TRAINING PROGRAMME

4.23 The following training activities were foreseen for 2021:

a) Recurrent course on REDDIG II operation and maintenance (virtual);
b) Course on security policies and firewall configuration*;
c) Advanced course on firewall management and monitoring*;
d) Training for Manaus NCC staff on analysis of IP packages using sniffer (virtual); and
e) Course on security policies and firewall configuration *.

*These training activities depend on the procurement process

Recurrent course on REDDIG II operation and maintenance

4.24 This activity was being carried out every year during the scheduled visits to the nodes by the Administrator. Given the current pandemic situation, it was proposed that this training activity be carried out virtually. If the possibility of face-to-face visits by the Administrator arose, it would be carried out as usual.

Course on security policies and firewall configuration

4.25 For now, it is subject to the purchase of the equipment.

4.26 It was noted that the purpose of training was first to introduce staff to the security policies and, second, for participants to configure the equipment to be installed in each node.

4.27 Taking into account that the purchased equipment would be delivered to the Regional Office, in principle, if conditions go back to normal, the training course would be provided in Lima, and one fellowship per State would be granted.

4.28 The participants must have networking knowledge. In this sense, it should be noted that the staff has received, through the project, various courses on this subject.

4.29 The costs involved in the provision of the course would be included in the purchase of the equipment, while the fellowships would be covered by the Project.

Advanced course on firewall management and monitoring

4.30 Same considerations as for the previous activity.

4.31 The course is directly related to the “Course on security policies and firewall configuration”. Accordingly, it would be subject to the holding of the latter.

4.32 One vacancy is foreseen for the SAM CNS Officer, one vacancy for the REDDIG II Administrator, one vacancy for the Manaus NCC and one vacancy for the Ezeiza NCC.

4.33 The costs involved in the delivery of the course would be included in the purchase of the equipment, while fellowships would be covered by the Project.

Training for the Manaus NCC staff on the analysis of IP packages using sniffer

4.34 The Meeting took note that this training could not be delivered in 2020 because of the pandemic. This training was intended for the Manaus NCC staff responsible for giving support to the network, ensuring data transport and integrity.

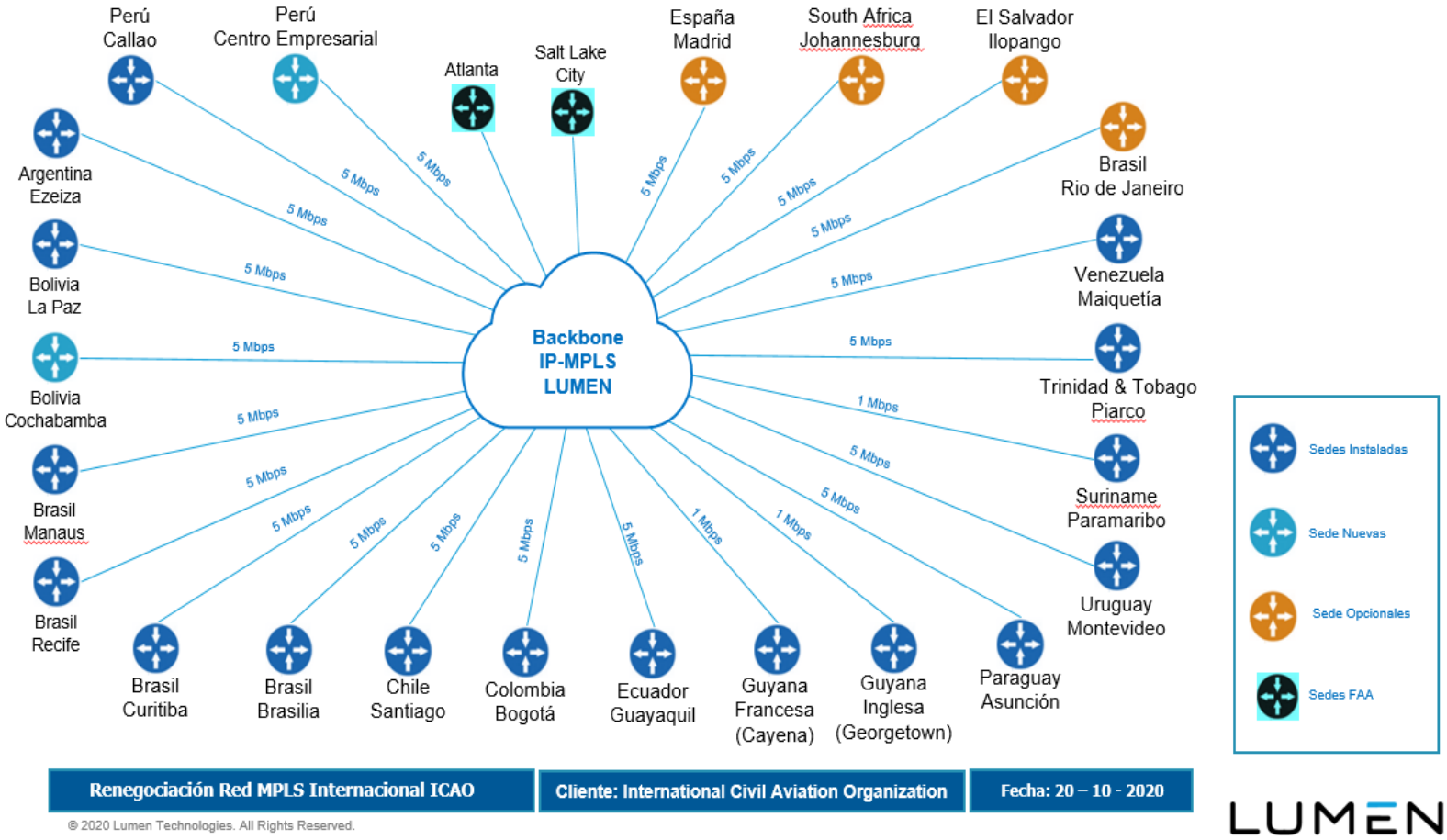
4.35 The intention was that, if it could not be delivered in person, it would be delivered virtually.

4.36 This training had no charge and would be provided by the network Administrator.

APÉNDICE / APPÉNDIX A

Nuevo contrato de la red terrestre / New ground network contract

	Point of Presence (PP)	Location indicator	bit/s	Availability (%)
1	Argentina (Ezeiza)	SAEZ	5 M	99.7
2	**Bolivia (Cochabamba)**	**SLCB**	**5 M**	**99.7**
3	Bolivia (La Paz)	SLLP	5 M	99.7
4	Brazil (Curitiba)	SBCW	5 M	99.7
5	Brazil (Recife)	SBRE	5 M	99.7
6	Brazil (Manaus)	SBMN	5 M	99.7
7	Brazil (Brasilia)	SBBR	5 M	99.7
8	Chile (Santiago)	SCEL	5 M	99.7
9	**Brazil (Río de Janeiro)**	**SBRJ**	**5 M**	**99.7**
10	Colombia (Bogotá)	SKED	5 M	99.7
11	Ecuador (Guayaquil)	SEGU	5 M	99.7
12	Guyana Francesa (Cayena)	SOCA	1 M	99.7
13	Guyana (Georgetown)	SYCG	1 M	99.7
14	Paraguay (Asunción)	SGAS	5 M	99.7
15	Peru (Lima - CORPAC)	SPIM	5 M	99.7
16	**Peru (Lima - OACI)**	**ICAO**	**5 M**	**99.7**
17	Suriname (Paramaribo)	SMPM	1 M	99.7
18	Trinidad & Tobago (Piarco)	TTZP	5 M	99.7
19	Uruguay (Montevideo)	SUMU	5 M	99.7
20	Venezuela (Maiquetía)	SVMI	5 M	99.7


Perú Callao
Perú Centro Empresarial
Atlanta
Salt Lake City
España Madrid
South Africa Johannesburg
El Salvador Ilopango
Argentina Ezeiza
Bolivia La Paz
Bolivia Cochabamba
Brasil Manaus
Brasil Recife
Brasil Rio de Janeiro
Venezuela Maiquetía
Trinidad & Tobago Piarco
Suriname Paramaribo
Uruguay Montevideo
Paraguay Asunción
Brasil Curitiba
Brasil Brasilia
Chile Santiago
Colombia Bogotá
Ecuador Guayaquil
Guyana Francesa (Cayena)
Guyana Inglesa (Georgetown)
Backbone IP-MPLS LUMEN
5 Mbps
1 Mbps
Sedes Instaladas
Sede Nuevas
Sede Opcionales
Sedes FAA
Renegociación Red MPLS Internacional ICAO
Cliente: International Civil Aviation Organization
Fecha: 20 – 10 - 2020
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LUMEN

Agenda Item 5: Financial situation of the project and approval of the budget

5.1 Under this agenda item, the Meeting was briefed on the financial aspects of the project and the revision of the project budget in WP/05 - *Financial situation of the project and approval of the budget for 2021*, presented by the Secretariat.

Summary of expenditures incurred by Project RLA/03/901 between 2003 and 2020

5.2 The Project spent **USD 1,097,230 in 2020, and a total of USD 17,526,116 from 2003 to 2020**. The detailed breakdown of expenditures as of December 2020 is shown in Table # 1; and Table # 2 presents the distribution of project expenditures, by year, as well as a pie chart showing the percentage of execution of each budget component.

Status of cost-sharing contributions

5.3 The Meeting was informed of the status of cost-sharing contributions, as shown in Table # 3. Total contributions amounted to **USD 18,712,424** (including interest and other contributions). Subtracting expenses of **USD 17,526,116**, the balance was **USD 1,186,308**. This positive balance was committed to the two-year contract for the MPLS ground network service of USD 806,000, the outstanding amount of the Bogota node once installed, and other administrative expenses, so the balance of the project was minimal.

5.4 With regard to the outstanding contributions of Suriname, it was reported that based on the coordination carried out, a proposed payment schedule (see below) for the outstanding contribution from 2021 to 2025 was circulated in letter SA5322 dated 9 December 2020, which was approved by the States. In this regard, Suriname had reported on the transfer of the first installment and was awaiting confirmation of receipt of the deposit from Headquarters.

Year	Pending Payment according schedule	Annual Contribution	Total amount per year
2021	USD 47,015	USD 36,925	USD 83,940
2022	USD 86,369	USD 36,925(*)	USD 123,294(*)
2023	USD 86,369	USD 36,925(*)	USD 123,294(*)
2024	USD 86,369	USD 36,925(*)	USD 123,294(*)
2025	USD 86,369	USD 36,925(*)	USD 123,294(*)

(*) The amount of the annual contribution is subject to the budget reviews of the Project

5.5 Likewise, it was reported that Colombia had paid its contribution corresponding to year 2021 and confirmation of the deposit was being requested from Headquarters. Regarding the payment of contributions, it was noted that although there was a favourable balance in the project, it would be necessary for contributions for year 2021 to be received as soon as possible so as not to affect project implementation.

5.6 The Meeting then reviewed the proposed revision V of Project RLA/03/901 which includes the extension of the Project term until 2025, the extension of the MPLS service until 2025, the extension of the MEVA REDDIG interconnection costs until 2025, the inclusion of the nodes of Lima, Rio de Janeiro and Cochabamba, the update of project staff costs, and the update of 2020 expenditures according to the financial statements. Accordingly, the following conclusion was adopted:

<table>
<tr><td colspan="3">Conclusion
RCC/26-2 APPROVAL OF THE BUDGET OF PROJECT RLA/03/901 REV “V”</td></tr>
<tr><td colspan="2">That the Secretariat:

Take the necessary actions for the approval by ICAO Headquarters of the revision of Project RLA/03/901 shown in Appendix A to this part of the report, for its subsequent submission to the REDDIG member States.</td><td>Expected impact:

☐ Political / Global
☐ Interregional
☒ Economic
☐ Environmental
☒ Technical/Operational</td></tr>
<tr><td colspan="3">Why:
To fulfil REDDIG management activities.</td></tr>
<tr><td colspan="2">When:
Starting in 2021</td><td>Status:
Ongoing</td></tr>
<tr><td colspan="3">Who:
Secretariat.</td></tr>
</table>

Presupuesto del Proyecto (en dólares de los EEUU)

País Regional para Sudamerica
Proyecto **RLA/03/901/V**
Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

Fecha de inicio: 1 Julio 2003
Fecha de finalización: 31 Diciembre 2025

		TOTAL USD	*------ M/H	2003 USD	*------ M/H	2004 USD	*------ M/H	2005 USD	*------ M/H	2006 USD	*------ M/H	2007 USD	*------ M/H	2008 USD	*------ M/H	2009 USD	*------ M/H	2010 USD
10	**PERSONAL DEL PROYECTO**																	
11	**Profesionales Internacionales**																	
11-01	Administrador de la Red	3,679,444	2.5	22,359	12.0	93,953	12.0	101,296	12.0	156,503	12.0	197,784	12.0	177,449	12.0	207,289	12.0	201,030
11-51	Aspectos Institucionales	0																
11-97	Consultores	35,785				(6,303)								1,499				
11-99	**Sub-Total**	**3,715,229**	**2.5**	**22,359**	**12.0**	**87,650**	**12.0**	**101,296**	**12.0**	**156,503**	**12.0**	**197,784**		**178,948**		**207,289**		**201,030**
13	**APOYO ADMINISTRATIVO**	361,788		354	6.0	12,185	6.0	12,551			6.0	15,968	6.0	11,471	6	16,497	6	14,066
13-01	Secretaria bilingüe	25,297			12.0	12,000	12.0	12,108		711								
13-02	Técnico REDDIG	0																
13-03	Técnico REDDIG 2	7,516												7,516				
13-04	Secretaria bilingüe (liquidación)	49,787																
13-05	Asistente administrativo financiero	190,638																
13-06	Auxiliar de tecnología de la información	0																
13.99	**Sub-Total**	**635,026**		**354**	**18**	**24,185**	**18**	**24,659**	**0**	**711**	**6**	**15,968**	**6**	**18,987**	**6**	**16,497**	**6**	**14,066**
15	**VIAJES OFICIALES**																	
15-01	Viajes oficiales	1,745				321		925		499								
15-99	**Sub-total**	**1,745**				**321**		**925**		**499**		**0**		**0**		**0**		**0**
16	**MISIONES**																	
16-01	Gastos de misiones	341,792		3,504		4,110		16,732		18,642		18,357		25,718		10,615		14,110
16-99	**Sub-total**	**341,792**		**3,504**		**4,110**		**16,732**		**18,642**		**18,357**		**25,718**		**10,615**		**14,110**
17	**PROFESIONALES NACIONALES**																	
17-01	Profesionales Nacionales	4,810														2,080		
17-99	**Sub-total**	**4,810**														**2,080**		**0**
19	**Component total**	**4,698,602**		**26,217**		**116,266**		**143,612**		**176,355**		**232,109**		**223,653**		**236,481**		**229,206**
20	**SUBCONTRATOS**																	
21-01	Alquiler del segmento satelital (P.O. 40670)																	
	P.O. 30473 (1 Oct 2003 a 31 Dic 2003)	62,727		62,727														
	P.O. 40670 (1 Ene 2005 a 31 Dic 2008)	1,093,905				168,849		231,264		231,264		231,264		231,264				
	Alquiler 2009-2011	693,792																693,792
	Alquiler 2012-2014	696,354																
	Alquiler 2015-2018	925,056																
	Alquiler 2019-2023 (Contract 22501998)	1,665,120																
21-02	Acceso a la Red (Contract 22501528)	596,452																
21-03	MEVA/REDDIG Recurrente Brazil	28,433																
21-04	MEVA/REDDIG Recurrente Caracas	98,283																
21-05	MEVA/REDDIG Recurrente Bogota	97,349																
21-06	MEVA/REDDIG Recurrente Lima	28,433																
21-07	MEVA/REDDIG No Recurrente	75,071																75,071
21-08	Incremento Banda Satelital MEVA REDDIG	8,000																
	Total Servicio Terrestre	0																
	Servicio Terrestre SAEZ	218,229																
	Servicio Terrestre SLLP	218,229																
	Servicio Terrestre SLCB	136,200																
	Servicio Terrestre SBRJ	50,400																
	Servicio Terrestre SBCT	218,229																
	Servicio Terrestre SBMN	218,228																
	Servicio Terrestre SBRF	218,228																
	Servicio Terrestre SBBR	218,228																
	Servicio Terrestre SCEL	218,228																
	Servicio Terrestre SKED	218,228																
	Servicio Terrestre SEGU	218,228																
	Servicio Terrestre SOCA	218,228																
	Servicio Terrestre SYGC	218,228																
	Servicio Terrestre SGAS	218,228																
	Servicio Terrestre SPIM	218,228																
	Servicio Terrestre ICAO	49,200																
	Servicio Terrestre SMPM	218,228																
	Servicio Terrestre TTZP	218,228																
	Servicio Terrestre SUMU	218,228																
	Servicio Terrestre SVMI	218,228																
21-98	Seguro de Responsabilidad Profesional	20,497				845		1,156		3,469				1,156		1,156		2,161
29	**Total del Componente**	**10,035,151**		**62,727**		**169,694**		**232,420**		**234,733**		**231,264**		**232,420**		**1,156**		**771,024**
30	**CAPACITACION**																	

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31	Becas individuales																	
36-																		
36-	Por determinar	85,000																
31-99	**Sub Total**	**450,504**						**18,611**		**28,277**		**33,238**		**32,852**		**25,488**		**29,496**
33	**Capacitación en Grupo**																	
33-01	Colegiatura MEMOTEC PO 50632	25,100						25,100										
33-02	Colegiatura VIASAT PO 50661	9,950						9,950										
33-03	Matricula cursos COM	18,701																
33-04	Manejo y Operación Software Whatsup Gold	0																
33-05	Curso Básico Redes Emuladores y Switches	0																
33-06	Curso Interconexion CISCO	16,175																
33-07	Curso Entrenamiento Redes	13,873																
33-97	Interpretación Simultánea	164,239																
33-98	Ajustes años anteriores	5,956								2,276		806				7,905		
	Otros cargos	7,366														1,020		6,346
33-99	**Sub-total**	**261,360**						**35,050**		**2,276**		**806**		**0**		**8,925**		**6,346**
37	**Seguros**																	
37-98	Seguro de responsabilidad profesional	3,215				3,014		201										
37-99	**Sub-total**	**3,215**				**3,014**		**201**		**0**		**0**		**0**		**0**		**0**
39	**Total del Componente**	**715,079**				**3,014**		**53,862**		**30,553**		**34,044**		**32,852**		**34,413**		**35,842**
40	**EQUIPO**																	
	Reembolso RLA/98/019 (Aduanas)	-12,752				-12,752												
45-01	Equipo + repuestos	1,695																
	Repuestos SAM REDDIG	214,000						45,930		17,750		6,889		17,957		102,072		12,507
	Repuestos REDDIG II	106,963																
	Firewalls	340,000																
	SAEZ	3,377												2,458		919		
	SLLP	6,297										3,194		3,103		0		
	SBRF-SBMN-SBCT-SBBR	20,464						6,490		13,824		150						
	SCEL	3,498						3,009		1,603		-1,494				380		
	SKED	20,254								84		14,466		3,207		2,498		
	SEGU	7,260						1,870		2,390		2,620				380		
	SOCA	240														240		
	SYGC	1,871										268		1,603		0		
	SGAS	8,363								660		5,467		2,236				
	SPIM	0																

Presupuesto del Proyecto (en dólares de los EEUU)

País Regional para Sudamerica
Proyecto **RLA/03/901/V**
Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

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	SMPM	1,350										1,350						
	TTZP	3,503												1,723		1,780		
	SUMU	37,741										36,031		1,710				
	SVMI	5,179						2,242				2,697				240		
	Sub Total	**769,303**		**0**		**-12,752**		**59,541**		**36,311**		**71,637**		**33,997**		**108,509**		**12,507**
45-02	Equipo para oficina REDDIG	35,659		82						-30								
	Laptop REDDIG	3,965						1,829										
	LINDY COMPU PO 50534 SBMN	254						254										
	Sub Total	**39,878**		**82**		**0**		**2,083**		**-30**		**0**		**0**		**0**		**0**
45-03	Operación/Mantenimiento equipo de oficina	22,544				1,716												
	PO 50522 VIASAT Reparación modem SYGC	1,603						1,603										
	CB LIMA	179						179										
45-04	Transferencia del NCC de SPIM a SBMN																	
	P.O. 040694 VIASAT	8,250				8,250												
	P.O. 040687 MEMOTEC	4,250				4,250												
45-05	Extensión de contrato SEEE (P.O. 40489)	50,000				50,000												
45-06	Red de respaldo SEEE (P.O. 04090)	24,820				24,820												
45-07	Ajuste de auditoría	0																
45-08	P.O. 40683 Reparación modem SPIM	0																
45-09	Equipo de interconexión MEVA-REDDIG	9,439																
45-10	Adquisición de la REDDIG II	0																
	SAEZ	262,311																
	SAEZ (Nodo)	463,050																
	SLLP	262,311																
	SBRF	262,311																
	SBMN	262,311																
	SBCT	262,311																
	SBBR	396,571																
	SCEL	262,311																
	SKED	440,190																
	SEGU	262,311																
	SOCA	262,311																
	SYGC	262,311																
	SGAS	347,059																
	SPIM	262,311																
	SMPM	262,311																
	TTZP	262,311																
	SUMU	262,311																
	SVMI	262,311																
45-98	Seguro de responsabilidad profesional	2,213				444		284		246				130		1,109		
45-99	**Sub-Total**	**5,442,524**		**0**		**89,480**		**2,066**		**246**		**0**		**130**		**1,109**		**0**
49	**Total del Componente**	**6,251,705**		**82**		**76,728**		**63,690**		**36,527**		**71,637**		**34,127**		**109,617**		**12,507**
50	**VARIOS**																	
53-01	Gastos Varios	231,847		643		4,726		4,475		1,150		8,688		4,632		3,703		9,157
53-02	Cargos del PNUD	4,278				118		505		337						3,318		
53-99	**Sub-Total**	**236,126**		**643**		**4,844**		**4,980**		**1,487**		**8,688**		**4,632**		**7,021**		**9,157**
55	Costos administrativos	1,251,456		6,439		28,795		35,817		37,372		34,601		39,503		55,621		33,357
59	**Total del Componente**	**1,487,582**		**7,082**		**33,639**		**40,797**		**38,859**		**43,289**		**44,135**		**62,642**		**42,514**
99	**TOTAL DEL PROYECTO**	**23,188,120**		**96,108**		**399,341**		**534,381**		**517,027**		**612,343**		**567,187**		**444,309**		**1,091,093**

Presupuesto del Proyecto (en dólares de los EEUU)

País Regional para Sudamerica
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Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

Fecha de inicio: 1 Julio 2003
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		TOTAL USD	*------ M/H	2003 USD	*------ M/H	2004 USD	*------ M/H	2005 USD	*------ M/H	2006 USD	*------ M/H	2007 USD	*------ M/H	2008 USD	*------ M/H	2009 USD	*------ M/H	2010 USD
100	**COSTOS COMPARTIDOS**																	
101	Costos compartidos Gobiernos																	
101-01	Argentina	2,276,075		50,329		34,231		36,123		46,800		65,423		77,660		85,559		0
101-02	Bolivia	1,344,375		0		22,090		45,632		56,421		0		54,595		52,460		48,039
101-03	Brasil	4,600,070		123,780		77,954		74,346		113,775		58,035		81,444		118,039		142,700
101-04	Chile	1,183,379		40,003		80,066		76,724		10,430		0		29,500		29,500		1,000
101-05	Colombia	1,645,507		24,269		0		162,094		0		0		150,000		7,441		0
101-06	Ecuador	1,236,474		40,903		19,559		21,151		29,100		19,000		40,865		51,589		35,000
101-07	Francia	1,143,856		33,941		12,112		20,910		26,400		25,000		45,795		51,371		24,092
101-08	Guyana	1,149,311		0		44,203		10,006		10,278		27,854		35,378		29,119		43,870
101-09	Paraguay	1,266,077		42,550		5,503		21,910		30,700		25,600		46,160		53,262		0
101-10	Perú	1,656,156		49,603		29,660		35,140		39,700		40,010		71,372		77,820		0
101-11	Suriname	1,158,072		0		41,693		18,505		0		0		28,670		18,330		0
101-12	Uruguay	1,303,474		47,478		16,166		28,854		27,985		77,156		52,871		39,729		29,970
101-13	Venezuela	1,667,185		44,203		15,790		27,220		45,800		38,700		71,774		81,664		88,967
101-14	Intereses / Ajustes / Otros	146,133		1,447		4,765		9,685		16,157		17,065		8,630		1,948		770
101-15	Trinidad y Tabago	1,048,150						40,110		5,274		15,500		37,787		48,776		29,980
101-16	COCESNA	363,826														0		0
101-99	**Sub-Total**	**23,188,120**		**498,506**		**403,792**		**628,410**		**458,820**		**409,343**		**832,501**		**746,607**		**444,388**
109	**Total del Componente**	**23,188,120**		**498,506**		**403,792**		**628,410**		**458,820**		**409,343**		**832,501**		**746,607**		**444,388**

Presupuesto del Proyecto (en dólares de los EEUU)

País Regional para Sudamerica
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Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

Fecha de inicio: 1 Julio 2003
Fecha de finalización: 31 Diciembre 2023

		TOTAL USD	*------ M/H	2011 USD	*------ M/H	2012 USD	*------ M/H	2013 USD	*------ M/H	2014 USD	*------ M/H	2015 USD	*------ M/H	2016 USD	*------ M/H	2017 USD
10	**PERSONAL DEL PROYECTO**															
11	**Profesionales Internacionales**															
11-01	Administrador de la Red	3,679,444	12.0	209,250	12.0	232,544	12.0	212,112	12.0	211,011	12.0	197,472	12.0	194,720	12.0	180,813
11-51	Aspectos Institucionales	0														
11-97	Consultores	35,785		9,200		0	0	0		0		0				
11-99	**Sub-Total**	**3,715,229**		**218,450**		**232,544**		**212,112**		**211,011**		**197,472**		**194,720**		**180,813**
13	**APOYO ADMINISTRATIVO**	361,788	6	19,086	6	19,443	6	17,183	6	17,571	6	15,864	6	19,991	6	22,778
13-01	Secretaria bilingüe	25,297														
13-02	Técnico REDDIG	0														
13-03	Técnico REDDIG 2	7,516														
13-04	Secretaria bilingüe (liquidación)	49,787	4	10,670	4	12,831	4	15,508	4	9,254						
13-05	Asistente administrativo financiero	190,638	4	8,931	4	107	3	11,425	3	7,798	4	11,366	4	11,046	4	12,697
13-06	Auxiliar de tecnología de la información	0														
13.99	**Sub-Total**	**635,026**	**14**	**38,687**	**14**	**32,381**	**13**	**44,116**	**13**	**34,623**	**10**	**27,230**	**10**	**31,037**	**10**	**35,475**
15	**VIAJES OFICIALES**															
15-01	Viajes oficiales	1,745				0		0		0						
15-99	**Sub-total**	**1,745**		**0**		**0**		**0**		**0**		**0**		**0**		**0**
16	**MISIONES**															
16-01	Gastos de misiones	341,792		10,250		36,747		5,075		20,306		15,372		15,115		21,120
16-99	**Sub-total**	**341,792**		**10,250**		**36,747**		**5,075**		**20,306**		**15,372**		**15,115**		**21,120**
17	**PROFESIONALES NACIONALES**															
17-01	Profesionales Nacionales	4,810		961								1,769				
17-99	**Sub-total**	**4,810**		**961**		**0**		**0**		**0**		**1,769**		**0**		**0**
19	**Component total**	**4,698,602**		**268,348**		**301,672**		**261,303**		**265,940**		**241,843**		**240,872**		**237,408**
20	**SUBCONTRATOS**															
21-01	Alquiler del segmento satelital (P.O. 40670)															
	P.O. 30473 (1 Oct 2003 a 31 Dic 2003)	62,727														
	P.O. 40670 (1 Ene 2005 a 31 Dic 2008)	1,093,905														
	Alquiler 2009-2011	693,792														
	Alquiler 2012-2014	696,354				233,826		231,264		231,264						
	Alquiler 2015-2018	925,056										462,528		231,264		
	Alquiler 2019-2023 (Contract 22501998)	1,665,120														
21-02	Acceso a la Red (Contract 22501528)	596,452		32,831		24,650		77,518		45,039		56,269		46,348		33,817
21-03	MEVA/REDDIG Recurrente Brazil	28,433										1,454		1,699		3,160
21-04	MEVA/REDDIG Recurrente Caracas	98,283										5,154		6,025		10,888
21-05	MEVA/REDDIG Recurrente Bogota	97,349										5,155		6,026		10,771
21-06	MEVA/REDDIG Recurrente Lima	28,433										1,454		1,699		3,160
21-07	MEVA/REDDIG No Recurrente	75,071														
21-08	Incremento Banda Satelital MEVA REDDIG	8,000														
	Total Servicio Terrestre	0														
	Servicio Terrestre SAEZ	218,229												23,798		23,950
	Servicio Terrestre SLLP	218,229												23,798		23,950
	Servicio Terrestre SLCB	136,200														
	Servicio Terrestre SBRJ	50,400														
	Servicio Terrestre SBCT	218,229												23,798		23,950
	Servicio Terrestre SBMN	218,228												23,798		23,949
	Servicio Terrestre SBRF	218,228												23,798		23,949
	Servicio Terrestre SBBR	218,228												23,798		23,949
	Servicio Terrestre SCEL	218,228												23,798		23,949
	Servicio Terrestre SKED	218,228												23,798		23,949
	Servicio Terrestre SEGU	218,228												23,798		23,949
	Servicio Terrestre SOCA	218,228												23,798		23,949
	Servicio Terrestre SYGC	218,228												23,798		23,949
	Servicio Terrestre SGAS	218,228												23,798		23,949
	Servicio Terrestre SPIM	218,228												23,798		23,949
	Servicio Terrestre ICAO	49,200														
	Servicio Terrestre SMPM	218,228												23,798		23,949
	Servicio Terrestre TTZP	218,228												23,798		23,949
	Servicio Terrestre SUMU	218,228												23,798		23,949
	Servicio Terrestre SVMI	218,228												23,798		23,949
21-98	Seguro de Responsabilidad Profesional	20,497				0		0				2,583		2,738		2,512
29	**Total del Componente**	**10,035,151**		**32,831**		**258,476**		**308,782**		**276,303**		**534,597**		**700,363**		**471,444**
30	**CAPACITACION**															

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Fecha de inicio: 1 Julio 2003
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		TOTAL USD	*------ M/H	2011 USD	*------ M/H	2012 USD	*------ M/H	2013 USD	*------ M/H	2014 USD	*------ M/H	2015 USD	*------ M/H	2016 USD	*------ M/H	2017 USD
31	Becas individuales															
36-																
36-	Por determinar	85,000														
31-99	**Sub Total**	**450,504**		**7,101**		**15,562**		**12,656**		**8,017**		**25,964**		**37,859**		**33,187**
33	**Capacitación en Grupo**															
33-01	Colegiatura MEMOTEC PO 50632	25,100														
33-02	Colegiatura VIASAT PO 50661	9,950														
33-03	Matricula cursos COM	18,701				8,583		10,118		0						
33-04	Manejo y Operación Software Whatsup Gold	0														
33-05	Curso Básico Redes Emuladores y Switches	0														
33-06	Curso Interconexion CISCO	16,175										9018		7,157		
33-07	Curso Entrenamiento Redes	13,873														
33-97	Interpretación Simultánea	164,239		3,060		9,446		15,648		15,714		15,678		9,856		18,530
33-98	Ajustes años anteriores	5,956		-5,031												
	Otros cargos	7,366														
33-99	**Sub-total**	**261,360**		**-1,971**		**18,029**		**25,766**		**15,714**		**24,696**		**17,013**		**18,530**
37	**Seguros**															
37-98	Seguro de responsabilidad profesional	3,215														
37-99	**Sub-total**	**3,215**		**0**		**0**		**0**		**0**		**0**		**0**		**0**
39	**Total del Componente**	**715,079**		**5,130**		**33,591**		**38,422**		**23,731**		**50,660**		**54,872**		**51,717**
40	**EQUIPO**															
	Reembolso RLA/98/019 (Aduanas)	-12,752														
45-01	Equipo + repuestos	1,695														
	Repuestos SAM REDDIG	214,000		2,896		635		2,307		5,057						
	Repuestos REDDIG II	106,963														
	Firewalls	340,000														
	SAEZ	3,377														
	SLLP	6,297														
	SBRF-SBMN-SBCT-SBBR	20,464														
	SCEL	3,498														
	SKED	20,254														
	SEGU	7,260														
	SOCA	240														
	SYGC	1,871														
	SGAS	8,363														
	SPIM	0														

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Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

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		TOTAL USD	*------ M/H	2011 USD	*------ M/H	2012 USD	*------ M/H	2013 USD	*------ M/H	2014 USD	*------ M/H	2015 USD	*------ M/H	2016 USD	*------ M/H	2017 USD
	SMPM	1,350														
	TTZP	3,503														
	SUMU	37,741														
	SVMI	5,179														
	Sub Total	**769,303**		**2,896**		**635**		**2,307**		**5,057**		**0**		**0**		**0**
45-02	Equipo para oficina REDDIG	35,659		1,266		757		4,421				1,820				
	Laptop REDDIG	3,965		2,136												
	LINDY COMPU PO 50534 SBMN	254														
	Sub Total	**39,878**		**3,402**		**757**		**4,421**		**0**		**1,820**		**0**		**0**
45-03	Operación/Mantenimiento equipo de oficina	22,544		2,009				0		0						
	PO 50522 VIASAT Reparación modem SYGC	1,603														
	CB LIMA	179														
45-04	Transferencia del NCC de SPIM a SBMN															
	P.O. 040694 VIASAT	8,250														
	P.O. 040687 MEMOTEC	4,250														
45-05	Extensión de contrato SEEE (P.O. 40489)	50,000														
45-06	Red de respaldo SEEE (P.O. 04090)	24,820														
45-07	Ajuste de auditoría	0														
45-08	P.O. 40683 Reparación modem SPIM	0														
45-09	Equipo de interconexión MEVA-REDDIG	9,439		9,439												
45-10	Adquisición de la REDDIG II	0														
	SAEZ	262,311						12,544		72,763		134,755				
	SAEZ (Nodo)	463,050														
	SLLP	262,311						12,544		72,763		134,755				
	SBRF	262,311						12,544		72,763		134,755				
	SBMN	262,311						12,544		72,763		134,755				
	SBCT	262,311						12,544		72,763		134,755				
	SBBR	396,571								354,322						
	SCEL	262,311						12,544		72,763		134,755				
	SKED	440,190						12,544		72,763		134,755				
	SEGU	262,311						12,544		72,763		134,755				
	SOCA	262,311						12,544		72,763		134,755				
	SYGC	262,311						12,544		72,763		134,755				
	SGAS	347,059						97,292		72,763		134,755				
	SPIM	262,311						12,544		72,763		134,755				
	SMPM	262,311						12,544		72,763		134,755				
	TTZP	262,311						12,544		72,763		134,755				
	SUMU	262,311						12,544		72,763		134,755				
	SVMI	262,311						12,544		72,763		134,755				
45-98	Seguro de responsabilidad profesional	2,213				0										
45-99	**Sub-Total**	**5,442,524**		**11,448**		**0**		**285,455**		**1,518,534**		**2,156,081**		**0**		**0**
49	**Total del Componente**	**6,251,705**		**17,746**		**1,392**		**292,183**		**1,523,591**		**2,157,901**		**0**		**0**
50	**VARIOS**															
53-01	Gastos Varios	231,847		13,351		11,518		29,889		10,698		13,592		11,471		13,248
53-02	Cargos del PNUD	4,278						0		0		0				
53-99	**Sub-Total**	**236,126**		**13,351**		**11,518**		**29,889**		**10,698**		**13,592**		**11,471**		**13,248**
55	Costos administrativos	1,251,456		36,539		157,229		140,757		41,566		68,461		64,082		55,473
59	**Total del Componente**	**1,487,582**		**49,890**		**168,747**		**170,646**		**52,264**		**82,053**		**75,553**		**68,721**
99	**TOTAL DEL PROYECTO**	**23,188,120**		**373,945**		**763,878**		**1,071,336**		**2,141,829**		**3,067,054**		**1,071,660**		**829,290**

Presupuesto del Proyecto (en dólares de los EEUU)

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100	**COSTOS COMPARTIDOS**															
101	Costos compartidos Gobiernos															
101-01	Argentina	2,276,075		167,402		0		487,132		0		0		73,193		554,077
101-02	Bolivia	1,344,375		43,924		43,105		344,060		63,265		52,959		45,776		39,874
101-03	Brasil	4,600,070		148,003		993,893		235,239		501,508		150,672		128,044		167,976
101-04	Chile	1,183,379		45,000		44,791		354,930		52,360		50,593		52,496		36,496
101-05	Colombia	1,645,507		67,201		412,394		0		73,166		60,388		46,842		46,842
101-06	Ecuador	1,236,474		35,000		328,951		65,598		62,116		58,880		0		93,853
101-07	Francia	1,143,856		42,178		323,572		0		62,951		114,683		44,776		33,725
101-08	Guyana	1,149,311		63,148		328,347		21,696		57,173		66,041		58,555		12,457
101-09	Paraguay	1,266,077		87,148		41,848		434,406		0		0		107,978		78,925
101-10	Perú	1,656,156		155,271		349,287		76,474		0		58,961		127,088		59,719
101-11	Suriname	1,158,072		111,164		29,983		281,233		0		0		80,000		80,000
101-12	Uruguay	1,303,474		29,971		333,134		66,541		63,516		58,240		51,869		42,649
101-13	Venezuela	1,667,185		80,000		87,033		382,230		70,580		56,119		43,626		43,626
101-14	Intereses / Ajustes / Otros	146,133		847		2,612		6,819		6,640		6,644		7,768		15,188
101-15	Trinidad y Tabago	1,048,150		0		318,528		91,605		47,731		52,454		45,584		29,289
101-16	COCESNA	363,826		65,145		19,178		19,178		19,185		0		49,124		38,393
101-99	**Sub-Total**	**23,188,120**		**1,141,402**		**3,656,656**		**2,867,141**		**1,080,191**		**786,634**		**962,719**		**1,373,089**
109	**Total del Componente**	**23,188,120**		**1,141,402**		**3,656,656**		**2,867,141**		**1,080,191**		**786,634**		**962,719**		**1,373,089**

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		TOTAL USD	*------ M/H	2018 USD	*------ M/H	2019 USD	*------ M/H	2020 USD	*------ M/H	2021 USD	*------ M/H	2022 USD	*------ M/H	2023 USD	*------ M/H	2024 USD	*------ M/H	2025 USD
10	**PERSONAL DEL PROYECTO**																	
11	**Profesionales Internacionales**																	
11-01	Administrador de la Red	3,679,444	12.0	119,225	12.0	126,704	12.0	147,930	12.0	130,000	12.0	134,000	12.0	138,000	12	142,000	12	146,000
11-51	Aspectos Institucionales	0																
11-97	Consultores	35,785		31,389		0												
11-99	**Sub-Total**	**3,715,229**		**150,614**		**126,704**		**147,930**		**130,000**		**134,000**		**138,000**	**12**	**142,000**	**12**	**146,000**
13	**APOYO ADMINISTRATIVO**	361,788	6	18,327	6	17,898	6	15,555	6	17,000	6	18,000	6	19,000	6	20,000	6	21,000
13-01	Secretaria bilingüe	25,297		478														
13-02	Técnico REDDIG	0																
13-03	Técnico REDDIG 2	7,516																
13-04	Secretaria bilingüe (liquidación)	49,787						1,524										
13-05	Asistente administrativo financiero	190,638	4	15,372	4	15,485	4	18,911	4	14,500	4	15,000	4	15,500	4	16,000	4	16,500
13-06	Auxiliar de tecnología de la información	0																
13.99	**Sub-Total**	**635,026**	**10**	**34,177**	**10**	**33,383**	**10**	**35,990**	**10**	**31,500**	**10**	**33,000**	**10**	**34,500**	**10**	**36,000**	**10**	**37,500**
15	**VIAJES OFICIALES**																	
15-01	Viajes oficiales	1,745				0												
15-99	**Sub-total**	**1,745**		**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**
16	**MISIONES**																	
16-01	Gastos de misiones	341,792		38,600		19,166		3,253		5,000		10,000		10,000		10,000		10,000
16-99	**Sub-total**	**341,792**		**38,600**		**19,166**		**3,253**		**5,000**		**10,000**		**10,000**		**10,000**		**10,000**
17	**PROFESIONALES NACIONALES**																	
17-01	Profesionales Nacionales	4,810																
17-99	**Sub-total**	**4,810**		**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**
19	**Component total**	**4,698,602**		**223,391**		**179,253**		**187,173**		**166,500**		**177,000**		**182,500**		**188,000**		**193,500**
20	**SUBCONTRATOS**																	
21-01	Alquiler del segmento satelital (P.O. 40670)																	
	P.O. 30473 (1 Oct 2003 a 31 Dic 2003)	62,727																
	P.O. 40670 (1 Ene 2005 a 31 Dic 2008)	1,093,905																
	Alquiler 2009-2011	693,792																
	Alquiler 2012-2014	696,354																
	Alquiler 2015-2018	925,056		231,264														
	Alquiler 2019-2023 (Contract 22501998)	1,665,120				208,140		416,280		208,140		208,140		208,140		208,140		208,140
21-02	Acceso a la Red (Contract 22501528)	596,452		30,899		50,268		29,728		33,817		33,817		33,817		33,817		33,817
21-03	MEVA/REDDIG Recurrente Brazil	28,433				3,160		3,160		3,160		3,160		3,160		3,160		3,160
21-04	MEVA/REDDIG Recurrente Caracas	98,283				10,888		10,888		10,888		10,888		10,888		10,888		10,888
21-05	MEVA/REDDIG Recurrente Bogota	97,349				10,771		10,771		10,771		10,771		10,771		10,771		10,771
21-06	MEVA/REDDIG Recurrente Lima	28,433				3,160		3,160		3,160		3,160		3,160		3,160		3,160
21-07	MEVA/REDDIG No Recurrente	75,071																
21-08	Incremento Banda Satelital MEVA REDDIG	8,000						-		1,600		1,600		1,600		1,600		1,600
	Total Servicio Terrestre	0																
	Servicio Terrestre SAEZ	218,229		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SLLP	218,229		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SLCB	136,200								27,240		27,240		27,240		27,240		27,240
	Servicio Terrestre SBRJ	50,400								10,080		10,080		10,080		10,080		10,080
	Servicio Terrestre SBCT	218,229		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SBMN	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SBRF	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SBBR	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SCEL	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SKED	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SEGU	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SOCA	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SYGC	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SGAS	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SPIM	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre ICAO	49,200								9,840		9,840		9,840		9,840		9,840
	Servicio Terrestre SMPM	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre TTZP	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SUMU	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
	Servicio Terrestre SVMI	218,228		24,034		23,000		21,023		20,485		20,485		20,485		20,485		20,485
21-98	Seguro de Responsabilidad Profesional	20,497		2,721														
29	**Total del Componente**	**10,035,151**		**673,470**		**677,394**		**831,373**		**666,936**		**666,936**		**666,936**		**666,936**		**666,936**
30	**CAPACITACION**																	

País Regional para Sudamerica
Proyecto **RLA/03/901/V**
Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

		TOTAL USD	*------ M/H	2018 USD	*------ M/H	2019 USD	*------ M/H	2020 USD	*------ M/H	2021 USD	*------ M/H	2022 USD	*------ M/H	2023 USD	*------ M/H	2024 USD	*------ M/H	2025 USD
31	Becas individuales																	
36-																		
36-	Por determinar	85,000						0		5,000		20,000		20,000		20,000		20,000
31-99	**Sub Total**	**450,504**		**19,025**		**49,304**		**0**		**5,000**		**20,000**		**20,000**		**20,000**		**20,000**
33	**Capacitación en Grupo**																	
33-01	Colegiatura MEMOTEC PO 50632	25,100																
33-02	Colegiatura VIASAT PO 50661	9,950																
33-03	Matricula cursos COM	18,701																
33-04	Manejo y Operación Software Whatsup Gold	0																
33-05	Curso Básico Redes Emuladores y Switches	0																
33-06	Curso Interconexion CISCO	16,175																
33-07	Curso Entrenamiento Redes	13,873		13,873														
33-97	Interpretación Simultánea	164,239		9,343		10,664		6,300		10,000		10,000		10,000		10,000		10,000
33-98	Ajustes años anteriores	5,956																
	Otros cargos	7,366																
33-99	**Sub-total**	**261,360**		**23,216**		**10,664**		**6,300**		**10,000**		**10,000**		**10,000**		**10,000**		**10,000**
37	**Seguros**																	
37-98	Seguro de responsabilidad profesional	3,215																
37-99	**Sub-total**	**3,215**		**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**
39	**Total del Componente**	**715,079**		**42,241**		**59,968**		**6,300**		**15,000**		**30,000**		**30,000**		**30,000**		**30,000**
40	**EQUIPO**																	
	Reembolso RLA/98/019 (Aduanas)	-12,752																
45-01	Equipo + repuestos	1,695				1,695												
	Repuestos SAM REDDIG	214,000																
	Repuestos REDDIG II	106,963				89,722		7,241		10,000								
	Firewalls	340,000								340,000								
	SAEZ	3,377																
	SLLP	6,297																
	SBRF-SBMN-SBCT-SBBR	20,464																
	SCEL	3,498																
	SKED	20,254																
	SEGU	7,260																
	SOCA	240																
	SYGC	1,871																
	SGAS	8,363																
	SPIM	0																

País Regional para Sudamerica
Proyecto **RLA/03/901/V**
Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

		TOTAL USD	*------ M/H	2018 USD	*------ M/H	2019 USD	*------ M/H	2020 USD	*------ M/H	2021 USD	*------ M/H	2022 USD	*------ M/H	2023 USD	*------ M/H	2024 USD	*------ M/H	2025 USD
	SMPM	1,350																
	TTZP	3,503																
	SUMU	37,741																
	SVMI	5,179																
	Sub Total	**769,303**		**0**		**91,417**		**7,241**		**350,000**		**0**		**0**		**0**		**0**
45-02	Equipo para oficina REDDIG	35,659		5,020		2,555		4,768		3,000		3,000		3,000		3,000		3,000
	Laptop REDDIG	3,965																
	LINDY COMPU PO 50534 SBMN	254																
	Sub Total	**39,878**		**5,020**		**2,555**		**4,768**		**3,000**		**3,000**		**3,000**		**3,000**		**3,000**
45-03	Operación/Mantenimiento equipo de oficina	22,544						3,819		3,000		3,000		3,000		3,000		3,000
	PO 50522 VIASAT Reparación modem SYGC	1,603																
	CB LIMA	179																
45-04	Transferencia del NCC de SPIM a SBMN																	
	P.O. 040694 VIASAT	8,250																
	P.O. 040687 MEMOTEC	4,250																
45-05	Extensión de contrato SEEE (P.O. 40489)	50,000																
45-06	Red de respaldo SEEE (P.O. 04090)	24,820																
45-07	Ajuste de auditoría	0																
45-08	P.O. 40683 Reparación modem SPIM	0																
45-09	Equipo de interconexión MEVA-REDDIG	9,439																
45-10	Adquisición de la REDDIG II	0																
	SAEZ	262,311		42,248.65														
	SAEZ (Nodo)	463,050										463,050						
	SLLP	262,311		42,248.65														
	SBRF	262,311		42,248.65														
	SBMN	262,311		42,248.65														
	SBCT	262,311		42,248.65														
	SBBR	396,571		42,248.65														
	SCEL	262,311		42,248.65														
	SKED	440,190		42,248.65						177,879								
	SEGU	262,311		42,248.65														
	SOCA	262,311		42,248.65														
	SYGC	262,311		42,248.65														
	SGAS	347,059		42,248.65														
	SPIM	262,311		42,248.65														
	SMPM	262,311		42,248.65														
	TTZP	262,311		42,248.65														
	SUMU	262,311		42,248.65														
	SVMI	262,311		42,248.65														
45-98	Seguro de responsabilidad profesional	2,213																
45-99	**Sub-Total**	**5,442,524**		**718,227**		**0**		**3,819**		**180,879**		**466,050**		**3,000**		**3,000**		**3,000**
49	**Total del Componente**	**6,251,705**		**723,247**		**93,972**		**15,828**		**533,879**		**469,050**		**6,000**		**6,000**		**6,000**
50	**VARIOS**																	
53-01	Gastos Varios	231,847		15,690		15,334		9,883		10,000		10,000		10,000		10,000		10,000
53-02	Cargos del PNUD	4,278																
53-99	**Sub-Total**	**236,126**		**15,690**		**15,334**		**9,883**		**10,000**		**10,000**		**10,000**		**10,000**		**10,000**
55	Costos administrativos	1,251,456		82,532		61,614		46,673		68,291		38,341		38,926		39,476		39,993
59	**Total del Componente**	**1,487,582**		**98,222**		**76,947**		**56,556**		**78,291**		**48,341**		**48,926**		**49,476**		**49,993**
99	**TOTAL DEL PROYECTO**	**23,188,120**		**1,760,571**		**1,087,534**		**1,097,230**		**1,460,606**		**1,391,327**		**934,362**		**940,412**		**946,430**

País Regional para Sudamerica
Proyecto **RLA/03/901/V**
Título Sistema de Gestión de la REDDIG y Administración del Segmento Satelital

		TOTAL USD	*------ M/H	2018 USD	*------ M/H	2019 USD	*------ M/H	2020 USD	*------ M/H	2021 USD	*------ M/H	2022 USD	*------ M/H	2023 USD	*------ M/H	2024 USD	*------ M/H	2025 USD
100	**COSTOS COMPARTIDOS**																	
101	Costos compartidos Gobiernos																	
101-01	Argentina	2,276,075		0		0		236,434		65,718		73,998		73,998		73,998		73,998
101-02	Bolivia	1,344,375		39,874		48,491		27,519		48,105		67,047		67,047		67,047		67,047
101-03	Brasil	4,600,070		168,503		0		338,765		186,781		197,653		197,653		197,653		197,653
101-04	Chile	1,183,379		40,686		35,790		14,400		32,469		39,036		39,036		39,036		39,036
101-05	Colombia	1,645,507		223,887		34,937		50,375		51,160		58,628		58,628		58,628		58,628
101-06	Ecuador	1,236,474		41,861		36,033		36,259		38,310		45,612		45,612		45,612		45,612
101-07	Francia	1,143,856		33,725		29,369		31,310		32,632		38,828		38,828		38,828		38,828
101-08	Guyana	1,149,311		39,532		0		73,893		51,559		44,050		44,050		44,050		44,050
101-09	Paraguay	1,266,077		0		37,081		29,104		63,502		40,100		40,100		40,100		40,100
101-10	Perú	1,656,156		59,719		45,950		52,348		58,712		67,330		67,330		67,330		67,330
101-11	Suriname	1,158,072		0		0		0		291,817		44,170		44,170		44,170		44,170
101-12	Uruguay	1,303,474		42,649		37,530		37,851		38,605		45,178		45,178		45,178		45,178
101-13	Venezuela	1,667,185		69,474		43,366		57,954		60,033		64,757		64,757		64,757		64,757
101-14	Intereses / Ajustes / Otros	146,133		25,142		18,802		5,489										
101-15	Trinidad y Tabago	1,048,150		0		59,278		29,638		35,590		40,257		40,257		40,257		40,257
101-16	COCESNA	363,826		19,178		19,178		22,185		16,310		19,193		19,193		19,193		19,193
101-99	**Sub-Total**	**23,188,120**		**804,230**		**445,804**		**1,043,524**		**1,061,018**		**885,836**		**885,836**		**885,836**		**885,836**
109	**Total del Componente**	**23,188,120**		**804,230**		**445,804**		**1,043,524**		**1,061,018**		**885,836**		**885,836**		**885,836**		**885,836**

Agenda Item 6: Annual project evaluation

6.1 Under this agenda item, the Meeting took note of the information presented in WP/06 regarding the project evaluation documents, namely:

a) Project status as of 31 December of each year, and management indicators and results (WP/6, Appendix A);
b) Project monitoring and control, 2021 work plan (WP/06, Appendix B); and
c) Survey on management indicators and results (WP/06, Appendix C).

6.2 The 2020 survey on management indicators and results was completed by 11 States (Argentina, Brazil, Chile, Colombia, France (French Guiana), Guiana, Paraguay, Peru, Trinidad and Tobago, Uruguay, and Venezuela) whose comments and ratings give an average of 4.57 points out of a maximum of 5 established in the rating scale, a score that shows that it "exceeds requirements" with respect to the programme of activities implemented in 2020. The consolidated information is presented as an **Appendix** to this agenda item.

6.3 Among the comments made on the fulfilment of the project objectives and the management of the project, note was taken of the need to plan the next substantive review of the project in which the objectives attained would be deleted and consideration given to including other activities being carried out in the project.

6.4 Likewise, it was underlined that States had to improve logistics (internments, imports) in terms of times and formalities, as this was their responsibility. This is important because delays could affect other States in the future and, consequently, the proper operation of the network. Accordingly, the Meeting agreed to the following:

<table>
<tr><td colspan="2">Conclusion
RCC/26-3 IMPROVEMENT OF LOGISTICS FOR THE INTERNMENT AND IMPORT OF REDDIG EQUIPMENT AND SPARE PARTS</td></tr>
<tr><td>That the Secretariat:
Circulate a letter to Member States indicating that the Coordination Committee urges to make the necessary efforts to improve logistics (internment, import) regarding REDDIG equipment and spare parts in their respective States, so as not to affect other States and the proper operation of the network.</td><td>Expected impact:

☐ Political / Global
☐ Interregional
☒ Economic
☐ Environmental
☒ Technical/Operational</td></tr>
<tr><td colspan="2">Why:
To fulfil REDDIG management activities.</td></tr>
<tr><td>When:
Starting in 2021</td><td>Status:
Ongoing</td></tr>
<tr><td colspan="2">Who:
Secretariat</td></tr>
</table>

6.5 Finally, among the lessons learned, note was taken of the need to maintain the REDDIG website with updated documents and information. Accordingly, the Secretariat undertook to take measures to improve and update the website.

APPENDIX

3. SURVEY ON MANAGEMENT AND OUTCOME INDICATORS

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

5.0	Exceptional results that exceed project requirements
4.5	Exceeds requirements
4.0	Project objectives were achieved in all cases
3.5	Most of the project 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 low-impact, low-quality results were achieved
1.5	Below the expected results
1.0	Well below the expected results

Total	**4.57**

3. SURVEY ON MANAGEMENT AND OUTCOME INDICATORS
I. EVALUATION OF CURRENT PROJECT

1.-Project objectives		
Do you think that project objectives are properly set, in accordance with the development priorities of your State in relation to the National Air Navigation Plan, to serve the reality of civil aviation?		**Evaluation**
ARG	The project is in line with the priorities established for aeronautical telecommunications	5
BOL		
BRA	Project objectives are in line with the objectives of Brazil	5
CHI	Yes, the objectives of the project are in line with the priorities of the national navigation plan of our State	5
COL		4
ECU		
FRA	They are set correctly.	4.5
GUY		4.5
PAR	The objectives of the project are aligned with our State's priorities with regard to the national air navigation plan	4.5
PER	They are properly established.	5
SUR		
T&T		4
URU	The objectives of the project take into account our State's priorities with regard to the national air navigation plan	4.5
VEN	Yes, they are properly set	5
	AVERAGE	**4.6**

2.-Support at regional and global level		
Do you think that the project responds to, and supports, your administration in its commitments vis-a-vis the regional and global air navigation plans?		**Evaluation**
ARG	The project reaffirms the network as a regional multi-service platform to deliver on the commitments assumed in the regional and global air navigation plans, even leading to new discussions on the existing plans	5
BOL		
BRA	Yes	5
CHI	Yes, the project supports our Administration's commitments concerning both the regional and global ANP	5
COL	ICAO has always supported us on matters when requested by AEROCIVIL	5
ECU		
FRA	Yes, the project supports and responds to our commitments	4.5
GUY		4.5
PAR	The project firmly supports our State's commitments with respect to the regional and global air navigation plans	5
PER	Yes, the support the administration receives is what is needed.	5
SUR		
T&T		4
URU	We consider that it responds to, and supports, our Administration's commitments with respect to the regional and global air navigation plans	4.5
VEN	We receive excellent ongoing and timely support to meet out commitments under the regional and global air navigation plans	5
	AVERAGE	**4.8**

3.-Comments by the State(s) Do you have any comments on project management?		Evaluation
ARG	We underscore the follow-up to the implementation and interconnection of the different systems of the States	5
BOL		
BRA	The administration has provided an excellent service in the implementation of Project RLA/03/901.	5
CHI	Project management is satisfactory and is in accordance with planned objectives	5
COL	Both Francisco and Javier have always been ready to give support on matters when so requested	5
ECU		
FRA	No comments	
GUY	No comments	4.5
PAR	Project management is fully committed with the objectives of the project, and encourages participation	4.5
PER		5
SUR		
T&T	No comments	
URU	Project management meets its objectives to the entire satisfaction of our Administration	5
VEN	Project focused on, and in line with, the commitments of the State vis-a-vis the regional and global air navigation plans and the evolution of the aeronautical sector in the CAR/SAM Regions	5
	AVERAGE	**4.9**

4.-Strategy and vision Do you consider that the project responds to your institution's strategy and long-term vision?		Evaluation
ARG	The project responds to the strategy and the vision, especially because it promotes technological innovation for the incorporation of new applications developed for aeronautical telecommunication services	5
BOL		
BRA	The project meets the requirements of Brazil vis-a-vis other countries	4.5
CHI	The Project responds to the strategy and long-term vision of our Administration	5
COL	Yes	4
ECU		
FRA	The project responds satisfactorily	4.5
GUY		5
PAR	It fully responds to the requirements of our State	4.5
PER	That is right, the activities carried out by the project are those established by member states and therefore support the strategies of the states.	4.5
SUR		
T&T		4
URU	The project responds to the strategy and long-term vision of our Administration	4.5
VEN	Yes, the strategy and vision of our institution are in line with the objectives of the project and these are constantly monitored to ensure they are met in the medium and long term	5
	AVERAGE	**4.6**

5.- Project quality What is your opinion about the content of this project for the achievement of its objectives?		Evaluation
ARG	We must underline the evaluation of the project and the efforts made to meet the requirements and to support the processes through constant upgrades based on technological developments. This has expedited the migration or replacement of the systems acquired by the State, addressing the issues of each scenario.	5
BOL		
BRA	The project content is in line with project objectives	4.5
CHI	It is appropriate and allows for the achievement of the objectives	4.5
COL	I have always sensed the commitment of project leaders towards the attainment of the objectives	4.5
ECU		
FRA	It is appropriate	4.5
GUY		5
PAR	The contents of the project are fully in line with the objectives	4.5
PER		5
SUR		
T&T	No information at this time.	
URU	The contents of the project meet the expectations regarding the objectives	4.5
VEN	Excellent	5
	AVERAGE	**4.7**

6- Project resources Do you consider that the financial, physical and human resources contemplated for the attainment of the objectives set forth in the project document are adequate?		Evaluation
ARG	Resources are adequate at the present time	4.5
BOL		
BRA	Financial, physical, and human resources are adequate to meet project objectives	4.5
CHI	Yes, they are adequate	4.5
COL	Yes, I think they are adequate	4
ECU		
FRA	You should allocate more resources to the training of technical staff responsible for the operation of REDDIG stations.	4
GUY		4.5
PAR	Yes	4.5
PER	It is important to allocate more financial resources for the training and training of technical personnel responsible for the operation of REDDIG stations.	4.5
SUR		
T&T		4
URU	The financial, physical, and human resources established for the project are adequate	4.5
VEN	Yes	5
	AVERAGE	**4.4**

7.-Project participants Do you consider that all the parties that should be involved in the project are involved? If not, who should be participating?		Evaluation
ARG	Yes, all the parties that should be involved are involved	4
BOL		
BRA	Project participants agree with the project proposal	5
CHI	Yes, they are	4.5
COL	Because of the commitment of the project leaders, staffing has been adequate	4
ECU		
FRA	Everyone who should be here, are here	4.5
GUY	Yes	4.5
PAR	Yes	4.5
PER	Yes, there are all the parts.	5
SUR		
T&T	I believe that all relevant parties are involved in the Project.	4
URU	Yes	5
VEN	Yes	5
	AVERAGE	**4.5**

8.-Project effectiveness Is the project cost-effective compared to similar programmes or projects?		Evaluation
ARG	The project is effective	5
BOL		
BRA	Effective administration of project resources by management	4.5
CHI	The project is in line with the strategy and long-term vision of our administration	5
COL		4
ECU		
FRA	From the point of view of our administration the project is effective	4.5
GUY	Yes	4.5
PAR	Yes	4.5
PER	Affirmative, it's effective	5
SUR		
T&T		4
URU	This project is adequate and effective, just like other similar projects	5
VEN	Yes	5
	AVERAGE	**4.6**

9.-Modification of project objectives What modifications to project objectives and scope would you propose?	
ARG	Update immediate objectives, taking into acount the activities already completed
BOL	
BRA	Migration to the IPv6 protocol and deployment of VoIP telephony
CHI	None
COL	
ECU	
FRA	Migrating to the ipv6 protocol and driving the upgrade of discontinued computers
GUY	
PAR	None
PER	
SUR	
T&T	At this time no modifications are proposed.
URU	The objectives and scope of the project are appropriate
VEN	Further promote the evaluation and implementation of new systems being developed for the regional and global air navigation plans

10.-Other information Please provide any other information to support or further clarify your perception of the scope of the current project	
ARG	Issues such as a regional (AMHS) directory, changes in traffic routing paradigms, availability of qualified and skilled technicians, shall be discussed in due time. Presence and participation of the appropriate personnel involved in the services delivered through the network
BOL	
BRA	Project RLA/03/901 properly meets the objective of providing voice and data communications between SAM States, and must always be aware of technological developments
CHI	Excellent initiatives and proactive management of the project
COL	Totally grateful for the management and commitment of Francisco, Javier, and their collaborators
ECU	
FRA	No comments
GUY	
PAR	No comments or clarifications on our side
PER	
SUR	
T&T	No other information at this time.
URU	The scope of the project is as expected and will serve as a basis for future projects
VEN	Same as above, with more publicity, motivation and dissemination of technological developments, advantages, and benefits for the State and the entire Region

3. SURVEY ON MANAGEMENT AND OUTCOME INDICATORS
II. ASSESSMENT OF ATTAINMENT OF OBJECTIVES

1.-Project objectives		**Evaluation**
In terms of project management by ICAO, do you think that project objectives are being met?		
ARG	Project objectives are being met	5
BOL		
BRA	All project objectives are being met	5
CHI	Yes, they are being met with a high level of professionalism and excellent management	4.5
COL	Consideration should be given to adjusting the objective so that ICAO may continue as administrator of the satellite segment	3.5
ECU		
FRA	They are being met	4.5
GUY		4.5
PAR	Yes, they are being met to the extent possible, with the limitations resulting from the COVID-19 pandemic	4.5
PER	Yes, the objectives are met	5
SUR		
T&T		4
URU	We believe that project management by ICAO is allowing for the achievement of project objectives, with successful results	4.5
VEN	Yes	5
	AVERAGE	**4.5**

2.- Project schedule		**Evaluation**
Do you consider that project objectives are being met or have been met on a timely basis in accordance with your expectations?		
ARG	Yes, they are being met	5
BOL		
BRA	Project objectives were met as planned	4.5
CHI	Yes, they were met on a timely basis	4.5
COL		4
ECU		
FRA	The objectives of the project have been appropriately met to the health situation	4.5
GUY	Yes	4.5
PAR	Yes, they are being met to the extent possible, with the limitations resulting from the COVID-19 pandemic	4.5
PER	Yes, they're being fulfilled	4.5
SUR		
T&T		4
URU	Project objectives are being met, successfully overcoming all problems	5
VEN	Some objectives are still pending due to the pandemic, especially the conduction of refresher and training courses	4
	AVERAGE	**4.5**

3.-Use of resources Do you consider that resources are being, or have been, used efficiently to meet the objectives?		Evaluation
ARG	Resources have been used efficiently	5
BOL		
BRA	Objectives were efficiently met	4.5
CHI	Yes, they have been used efficiently	4.5
COL		4
ECU		
FRA	Resources have been used efficiently.	4.5
GUY	Yes	4.5
PAR	Yes	4.5
PER	Efficient use of resources has been made	5
SUR		
T&T		4
URU	Resources have been efficiently used, meeting the objectives	4.5
VEN	Yes	5
	AVERAGE	**4.5**

4.- Project cost Do you consider that costs related to the attainment of the objectives are, or have been, adequate?		Evaluation
ARG	Costs are adequate	5
BOL		
BRA	Yes	4.5
CHI	Yes, they have been adequate	4.5
COL		4
ECU		
FRA	Yes, they are adequate	4
GUY	Yes	4.5
PAR	Yes	4.5
PER	The costs are adequate	4.5
SUR		
T&T		4
URU	Costs related to the achievement of objectives have been adequate	4.5
VEN	Yes	5
	AVERAGE	**4.5**

5.-Major achievements What are the main achievements of the project in relation to the expected results?		Evaluation
ARG	The project has turned the network into a multi-service platform, creating a scenario conducive to the provision of ATS services. In this sense, this project is enabling integration with other regions of the world.	5
BOL		
BRA	The procurement of the security solution and the provision of a reliable communication network	
CHI	The excellent coordination and regional collaboration for solving problems and addressing new challenges	5
COL	The coordination with focal points for addressing all matters concerning the network	4.5
ECU		
FRA	The availability and collaboration of the staff of the NCC of Manaus especially Mr. Javier	5
GUY	Reliable communication with the adjacent States.	4.5
PAR	The availability, the skilled technical team, and user satisfaction	4.5
PER		5
SUR		
T&T	Timely deployment of solutions to interference issues - Technical support	
URU	The expected results have been obtained, through an adequate administration of the project	4.5
VEN	The streamlining and upgrading of network equipment and the implementation of the ground system	5
	AVERAGE	**4.8**

6.-Major problems and their resolution What are the main problems affecting the achievement of expected results and how should they be resolved?		Evaluation
ARG	Although objectives are being met, logistics (customs formalities) continue to be a challenge	4
BOL		
BRA	No problems to report	
CHI	Logistical problems in each State	4
COL	International logistics for the distribution of spare parts, due to formalities for their admission into the country	4
ECU		
FRA	Logistical problems, spare parts management, training and pandemic	3.5
GUY	None	4.5
PAR	Delays in customs in the various States for the delivery/return of spare parts. These delays could be reduced through better management by focal points. Also, the pandemic caused by COVID-19	4
PER		5
SUR		
T&T	I believe the expected results are met.	4
URU	The problems have been logistics-related, due to delays in customs clearance, and unexpected technical issues, in addition to the current pandemic	4
VEN	The worsening or persistence of the Covid-19 pandemic	5
	AVERAGE	**4.2**

7.- Other comments Please include other comments related to the attainment of project objectives	
ARG	No comments
BOL	
BRA	No comments
CHI	The objectives have been achieved with professionalism and dedication by all the participants of the project
COL	The pandemic did not prevent ICAO staff from maintaining their commitment intact and continue meeting the objectives
ECU	
FRA	No comments
GUY	No comments
PAR	None
PER	
SUR	
T&T	No other comments at this time
URU	Objectives are being met through the excellent management of the Administrator, and the care provided by maintenance pesonnel of the administrations
VEN	The time it takes for the transportation of parts and spare parts. Virtual (on-line) classes and meetings

8.- Risks **What new events could affect the achievement of project outcomes? What do you recommend to respond to these events?**	
ARG	No comments
BOL	
BRA	Ways to reduce project costs must be sought, such as the deployment of IP telephony
CHI	Hiring of suitable personnel to work in the REDDIG, to replace those who retire
COL	
ECU	
FRA	Network security, loss of staff training, renewal of those who have retired, management of spare parts.
GUY	No comments
PAR	Security exposure of the network. We recommend accelerating the firewall implementation process. Develop a detailed timetable for the transition between firewalls and existing service routers
PER	
SUR	
T&T	No information at this time.
URU	The retirement of ICAO communication experts will probably affect project outcomes. We recommend searching for committed and suitable people to take these positions
VEN	The worsening or persistence of the Covid-19 pandemic, on-line solutions, biosafety measures

9.-Other information **Please provide any other information to support or further clarify your assessment regarding attainment of project objectives**	
ARG	No comments
BOL	
BRA	No comments
CHI	None
COL	The objectives of the project should clearly specify that ICAO will administer REDDIG on a permanent basis
ECU	
FRA	Nn comments
GUY	No comments
PAR	None
PER	
SUR	
T&T	No other information at this time.
URU	Our project compliance assessment is based on excellent communication among all parties, as well as on their dedication and professionalism
VEN	

3. SURVEY ON MANAGEMENT AND OUTCOME INDICATORS
III. EVALUATION OF PROJECT IMPLEMENTATION AND PROVISION OF SERVICES BY ICAO

1.-Decision making		**Evaluation**
Do you think that the decision-making process within the project is appropriate?		
ARG	It is appropriate	5
BOL		
BRA	Yes	4.5
CHI	Yest, it´s appropriate	4.5
COL	IS APPROPRIATE	4
ECU		
FRA	The process is appropriate	4.5
GUY		4.5
PAR	Yes	4.5
PER	Yes, it's the right one	5
SUR		
T&T		4
URU	DECISIONS MADE MOSTLY IN UNFORESEEN OR EMERGENCY DECISIONS HAVE BEEN APPROPRIATE	4.5
VEN		5
	AVERAGE	**4.5**

2.-Product quality		**Evaluation**
Do you think that the quality of the products obtained is appropriate?		
ARG	Is appropriate	5
BOL		
BRA	The products delivered by the project are of excellent quality.	5
CHI	Yes, it's appropriate.	4.5
COL	YES IT'S APPROPRIATE	4
ECU		
FRA	Quality is appropriate.	4
GUY		4.5
PAR	Yes.	4.5
PER	Yes it is, the quality is the right one	5
SUR		
T&T		4
URU	YES, THE QUALITY OF THE PRODUCTS HAS BEEN THE RESULT OF AN EXCELLENT STUDY AND ANALYSIS OF EACH OF THEM.	5
VEN	YES	5
	AVERAGE	**4.6**

3.-Orientation Do you think that the orientation for the attainment of project outcomes is being followed?		Evaluation
ARG	The results of the project are being met	5
BOL		
BRA	Yes.	4.5
CHI	Yes, it's complying.	4.5
COL	FRANCISCO AND JAVIER ARE ALWAYS AWARE OF THE OUTSTANDING ISSUES	4.5
ECU		
FRA	Yes is followed.	4.5
GUY		4.5
PAR	Yes.	4.5
PER	That's right.	5
SUR		
T&T		4
URU	YES, IT'S BEING FULFILLED AND THEY'RE GEARED TOWARDS EXCELLENT RESULTS.	4.5
VEN	Yes.	5
	AVERAGE	**4.6**

4.-Organization and prioritization Do you think the organization and prioritization within the project are appropriate?		Evaluation
ARG	It's the right one.	5
BOL		
BRA	Agree.	4.5
CHI	Yes, it's the right one.	4.5
COL		4
ECU		
FRA	Yes, is appropriate.	4.5
GUY		4.5
PAR	Yes.	4.5
PER	Yes, it's precisely what's necessary	5
SUR		
T&T		4
URU	WE BELIEVE THAT THE AGENDA AND PRIORITIZATION IS APPROPRIATE AND PRUDENT.	4.5
VEN	Yes	5
	AVERAGE	**4.5**

5.-Change management Do you think that change management and the degree of flexibility in managing the project are appropriate?		Evaluation
ARG	They're suitable	5
BOL		
BRA	Change management is very well done by project management, although States must have digital access (e.g. a website) to changes made.	4
CHI	Yes, they are suitable, with great adaptability.	4.5
COL		4
ECU		
FRA	The organization of the project is very flexible and the management of the appropriate change	4.5
GUY		4.5
PAR	Yes	4.5
PER	Yes of course.	5
SUR		
T&T		4
URU	THE MANAGEMENT OF CHANGE AND FLEXIBILITY IS VERY GOOD AND ADEQUATE.	4.5
VEN	Yes	5
	AVERAGE	**4.5**

6.-Service to the State Do you think that the service provided to your State is appropriate?		Evaluation
ARG	It's suitable	5
BOL		
BRA	All services provided to Brazil are of excellent quality, especially the administration of the network.	5
CHI	Yes, totally adequate.	4.5
COL	IT'S APPROPRIATE AND EFFICIENT	4.5
ECU		
FRA	Yes, is appropriate.	4
GUY	Excellent service.	4.5
PAR	Yes.	4.5
PER	In Peru, the service received is adequate	5
SUR		
T&T		4
URU	YES, IT IS APPROPRIATE AND WE BELIEVE EQUITABLE FOR ALL STATE .	4.5
VEN	Yes.	5
	AVERAGE	**4.6**

7.-Communication Do you think that the level of communication within and outside the project is adequate?		Evaluation
ARG	It's adequate	5
BOL		
BRA	The level of communication between the project management and the State is very good.	4.5
CHI	Yes, totally, very suitable and fluid.	4.5
COL	CURRENTLY ALL INTERNET MECHANISMS ARE USED TO COMMUNICATE	4.5
ECU		
FRA	The level of communication is very good	5
GUY	Yes	4.5
PAR	Yes	4.5
PER	It's right and effective	4.5
SUR		
T&T		4
URU	COMMUNICATION HAS BEEN ONE OF THE STRENGTHS, CAUSING THE SUCCESS	5
VEN	Yes.	5
	AVERAGE	**4.6**

8.-Conflicts Do you believe that conflict management is adequate?		Evaluation
ARG	It's the right one.	4.5
BOL		
BRA	Conflict management is well done.	4.5
CHI	Yes, it's appropriate and timely.	4.5
COL		4
ECU		
FRA	Management is gradual and adequate	4.5
GUY	Yes	4.5
PAR	Yes.	4.5
PER	Conflicts are adequately addressed	5
SUR		
T&T		4
URU	CONFLICTS ARE PROPERLY RESOLVED BECAUSE OF THEIR IMPORTANCE AND PRIORITY.	4.5
VEN	Yes.	5
	AVERAGE	**4.5**

9.-Use of resources Do you think that project resources are being used efficiently to produce the expected results?		Evaluation
ARG	Yes, resources are being used efficiently	4.5
BOL		
BRA	Yes.	4.5
CHI	Yes, they are used efficiently.	4.5
COL		4
ECU		
FRA	Yes, they are used efficiently	4.5
GUY	Yes.	4.5
PAR	Yes.	4.5
PER	Yes, it makes efficient use	5
SUR		
T&T		4
URU	YES, RESOURCES ARE BEING USED EFFICIENTLY AND WITH MODERATION	4.5
VEN	Yes.	5
	AVERAGE	**4.5**

10.-Relevance of mechanisms Do you think that project management mechanisms are relevant?		Evaluation
ARG	Yes, they are relevant	4.5
BOL		
BRA	The fact that the project is managed by ICAO greatly facilitates the interaction between states.	4.5
CHI	Yes, they're relevant.	4.5
COL		4
ECU		
FRA	They are clear and relevant	5
GUY	Yes.	4.5
PAR	Yes.	4.5
PER	They have satisfactory results	5
SUR		
T&T		4
URU	YES, THEY ARE RELEVANT AND ADEQUATE	4.5
VEN	Yes.	5
	AVERAGE	**4.5**

11.-Opportunity of 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 outputs, outcomes, and delivery of inputs?		Evaluation
ARG	This project allows all members of the Region to participate actively and to be able to materialize proposals or ideas that improve services. It is essential to highlight the support of all States	4.5
BOL		
BRA	Great.	5
CHI	Good, both in delivery time, products and results.	4.5
COL		
ECU		
FRA	Very good	4.5
GUY		4.5
PAR	Very good	4.5
PER		4.5
SUR		
T&T		4
URU	THE LEVEL OF OPPORTUNITY HAS BEEN EXCELLENT FOR GOOD RESOURCE MANAGEMENT, TIMES AND TECHNICAL FOLLOW-UP	4.5
VEN	AS EXPECTED.	5
	AVERAGE	**4.6**

12.-Orientation		
Do you consider that the activities and products developed through the project are in line with the directives of ICAO, the Regional Offices and air navigation plans?		**Evaluation**
ARG	Yes, they are in line with ICAO directives.	4.5
BOL		
BRA	The activities and products developed through the project are in line with ICAO guidelines, regional workshops and air navigation plans.	5
CHI	Yes, they are.	4.5
COL	AGREE	4.5
ECU		
FRA	Yes they are in line.	4.5
GUY	Yes.	4.5
PAR	Yes.	4.5
PER	The effort made has made it possible, they are online	5
SUR		
T&T		
URU	ACTIVITIES AND PRODUCTS ALIGN WITH AIR NAVIGATION PLANS, REGIONAL OFFICES AND ICAO DIRECTIVES.	4.5
VEN	Yes.	5
	AVERAGE	**4.7**

13.-Other information	
Please provide any other information to support or further clarify your assessment of the products and services provided through the project.	
ARG	The potential of the current network, as a multi-service platform, and technological change, suggest that it can continue to grow in the exchange of services between States and other regions of the world
BOL	
BRA	In general, its products and services delivered by the project are of excellent quality and in accordance with the planning of the Brazilian State.
CHI	The products and services through the project have been adequate, even more proactive, by ICAO.
COL	
ECU	
FRA	No comments
GUY	The REDDIG Project has provided an excellent channel for voice and data communication with the adjacent States.
PAR	No observation.
PER	No observation.
SUR	
T&T	
URU	THE PRODUCTS AND SERVICES PROVIDED BY THE PROJECT THROUGH THE REDDIG HAVE BEEN EXCELLENT
VEN	

3. SURVEY ON MANAGEMENT AND OUTCOME 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 staff from other States with more than satisfactory integration results continues to be highlighted. The possibility of exchanging experiences that has contributed to solving problems of services between States. The experiences gained and the possibility will continue to integrate different systems between States and Regions.
BOL	
BRA	The good relationship between the representatives of States, the confidence of States in the administration of the project and the commitment of the administration to provide a quality service are the positive points of this Project.
CHI	Teamwork, with the active participation of State staff and the Regional Office, through technological tools available
COL	THE COORDINATION OF THE PROJECT IN CHARGE OF ICAO HAS MADE ALL THE FOCAL POINTS AND STAFF INVOLVED IN THE COUNTRIES COMMITTED TO THE PROPOSED ACTIVITIES
ECU	
FRA	The exchange with people from other states and organization, the excellent support and mediation of ICAO
GUY	Reddig II is an excellent means of communication with all SAM states.
PAR	Good communication through the use of teleconferences for the management of situations and coordinations for problem solving.
PER	
SUR	
T&T	
URU	IT WOULD HARDLY HAVE BEEN POSSIBLE TO CREATE AND EXECUTE THE PROJECT AMONG SO MANY ADMINISTRATIONS WITHOUT THE ACTIVE MEDIATION OF ICAO, GENERATING CLOSE TECHNICAL COLLABORATION BETWEEN ALL STATES.
VEN	RECEPTIVITY AND SUPPORT IN FAULT RESOLUTION. The use of social networks for communications in times of information exchange and maintenance coordinations.
2.-Opportunities for improvement	
Provide a brief description of the improvement opportunities identified during project implementation.	
ARG	The above consideration is reiterated that REDDIG has several equipment that is eventually easily accessible in local media when requiring spare parts or replacements. This taking into account the logistical difficulties that have had to be addressed.
BOL	
BRA	The website must provide more information about the project.
CHI	Staff turnover, in some States, which then does not continue on the project, resulting in a lack of continuity and commitment.
COL	THE LOGISTICS FOR THE IMPORT OF SPARE PARTS AND EQUIPMENT HAS NOT AFFECTED BY NATIONALIZATION SINCE OUR ENTITY DOES NOT HAVE AN IMPORT DEPARTMENT
ECU	
FRA	We need to maintain staff training and improve logistics. Add connection with Suriname, Guyana, Trinidad and Tobago.
GUY	Due to REDDIG II, air travel is safer with flights over our airspace.
PAR	Constant training to have a technical team effectively prepared to deal with problems.
PER	
SUR	
T&T	
URU	ALL DIFFICULTIES HAVE ALWAYS BEEN OVERCOME WITH CLOSE COMMUNICATION AND SUPPORT BETWEEN TECHNICAL AREAS AND PROJECT MANAGEMENT.
VEN	Non-positive lessons: The permanent failure of a system for reasons of majeure or natural force. Assess damage promptly and provide an alternative, fast and effective solution for system recovery.

3.- Strategy for the implementation of the identified opportunities for improvement.	
Provide a brief description of the strategy that you would propose to implement the identified opportunities for improvement.	
ARG	No comments
BOL	
BRA	The website must always be up-to-date.
CHI	Maintain the working groups of States, continuing processes and initiating actions for staff renewal.
COL	
ECU	
FRA	Take a course for network administrators, face-to-face if possible
GUY	There are no comments at this time.
PAR	Maintain the strategy used, as it was refined with the experience gained during the course of the project and implement for the REDDIG III project
PER	
SUR	
T&T	
URU	AS AN IMPERATIVE STRATEGY, MAINTAIN AND INCREASE LINKS BETWEEN ADMINISTRATION PARTICIPANTS AND SUPPORT THE MANAGEMENT AND ADMINISTRATION OF REDDIG II.
VEN	The minimum time for decision-making when evaluating and diagnosing a problem and applying the strategy to solve in the shortest possible time.

Agenda Item 7: Other business

World Radiocommunication Conference (CMR 2023)

7.1 The Meeting took note that, on 26 November 2020, ICAO had circulated a State letter containing the draft position of ICAO on issues of interest to aviation in the agenda of the International Telecommunication Union (ITU) World Radiocommunication Conference - 2023 (WRC-23). This document is available in the RCC/26 web page.

AIDC trials

7.2 The Secretariat informed that an AIDC trial had been conducted on 26 February 2021 between Barranquilla ACC - Kingston ACC and Bogota ACC - CENAMER ACC, with the support of the AMHS COM centres of Atlanta, Bogota, Caracas, CENAMER, Kingston, Lima, and Panama, to verify the cause of CRC (cyclic redundancy check) errors in AIDC ABI messages occurred in previous trials.

7.3 During trials, it was found that, probably, with the establishment of the AMHS P1 connection between Atlanta and Caracas, as of December 2020, everything in the process of processing messages is with AMHS P1 connections between adjacent COM Centres, providing a more conducive environment for air navigation service automation initiatives and CRC errors are no longer presented. **Appendix A** to this part of the report contains a diagram of the systems and centres involved in this trial.

Interconnection of AMHS COM centres

7.4 The Meeting took note of the progress made in the implementation of AMHS in the SAM Region and the interconnection with centres of other Regions. **Appendix B** to this part of the report contains the diagram showing the status of AMHS implementation. States were urged to complete the implementation/modernisation of their AMHS systems and establish the interconnections between adjacent centres as soon as possible.

7.5 The Secretariat also urged the representatives of States participating in Regional Project RLA/03/901 to plan and implement the adaptation of systems for the processing of the new XML/GML-based message formats (AIXM, FIXM, and IWXXM).

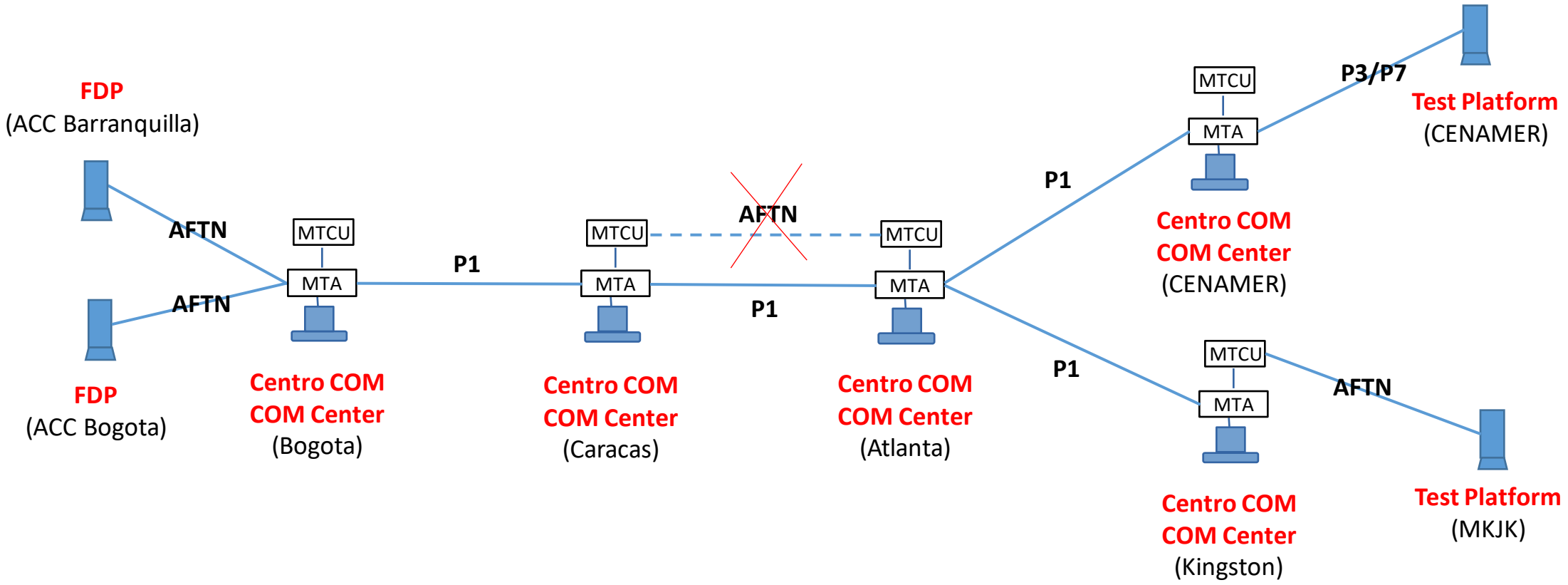
Ad-hoc group on satellite ADS-B implementation

7.6 The Meeting took note of the session held by the *Ad-hoc* group made up by representatives of Chile, Panama, and Trinidad and Tobago for the implementation of satellite ADS-B, under Regional Technical Cooperation Project RLA/03/901.

7.7 During the session, interested States received guidance from the Technical Cooperation Bureau (TCB) on the administrative processes and activities to be carried out.

7.8 The first activity to be undertaken would be the drafting of topics for the Terms of Reference and subsequent Technical Specifications for the implementation. The SAM Office would support States in the drafting of the document, with guidance and review by the TCB.

Prueba AIDC (26 de febrero de 2021)/ AIDC Test 26 February 2021



Interconexiones AMHS / AMHS Interconnections