



International
Civil Aviation
Organization

Organisation
de l'aviation civile
internationale

Organización
de Aviación Civil
Internacional

Международная
организация
гражданской
авиации

منظمة الطيران
المدني الدولي

国际民用
航空组织

LN 3/20.1 – SA515

13 August 2009

To: Mr. Pierre Dubois, Directeur Regional a.i. de l'Aviation Civile aux Antilles et en Guyane
Mr. Zulficar Mohamed, Director General a.i., Guyana Civil Aviation Authority
Mr. John Veira, Director, Civil Aviation, Suriname

cc.: Mr. Philippe Guivarc'h, Chef du Service de la Navigation Aérienne Antilles-Guyane
REDDIG Counterparts
ICAORD, Mexico (for transmission to Trinidad & Tobago)
D/TCB for C/FAM

Action

Required: Your reply by 4 September 2009

Asunto: **RLA/03/901 REDDIG – Introductory Course at the Satellite Communications and REDDIG Operations and the Third REDDIG Technical Operative Meeting (RTO/3)**
(Paramaribo, Suriname, 12 to 16 October 2009)

Dear Sir/Madam:

I have the honour to invite your Administration to participate in the Course *Introduction to Satellite Communications and REDDIG Operation*, as well as the *Third Technical-Operative Meeting (RTO/3)*, which will be held in Paramaribo, Suriname, from 12 October to 16 October 2009.

The Course will provide basic information on satellite communications and REDDIG operation consideration. In turn, the RTO/3 meeting will deal with aspects related to maintenance programme, logistics of spare parts, REDDIG IP addressing plan, new services, and network's migration to satellite IS-14.

Attached to this letter, please find the following documentation:

- a) Draft Agenda of Third REDDIG Technical Operative Meeting (RTO/3), as **Appendix A**.
- b) Programme of Introductory Course at the Satellite Communications and REDDIG Operations, as **Appendix B**.
- c) Registry Form, as **Appendix C**.
- d) IP/01, General Information, as **Appendix D**.

In addition, let me remind you that the documentation for the events will be posted on the website: www.lima.icao.int, therefore, participants should check the website frequently to download the documentation. All participants must bring their own set of documentation (hard copy or electronically in a laptop) to the events venue; there will be no hard copies available for information.

RLA/03/901 project members will count with two fellowships per participating State. Up to the completion of vacancies available, this Office will make the reservation of places, according to the receipt of requests. For this reason, I will very much appreciate if you could inform me as soon as possible if your administration will send a participant; submitting, if such is the case, the ICAO fellowship nomination form duly completed, in order to receive them at this Office, not later than **18 September 2009**.

In accordance with the above, I am pleased to invite your administration to propose participants, keeping in mind the following financing alternatives:

- a) Fellowships from an ICAO Project approved for your State.
- b) Fellowships chargeable to a Trust Fund Agreement established with your administration.
- c) Two fellowships sponsored by Regional Project RLA/03/901, if your State does not count with any of the previous alternatives, on a first-come first-serve basis, having the interested administration to provide the air tickets to and from the host country.
- d) Own resources of your administration, in the lack of any of the previous alternatives.

Accept, Sir/Madam, the assurances of my highest consideration.



Carlos Stehli
Deputy Regional Director
South American Office
Lima

Atts.

APPENDIX A

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**RLA/03/901 REGIONAL PROJECT
REDDIG Management System and Satellite Segment Administration**

REDDIG Third Technical-Operational Meeting (RTO/3)

(Paramaribo, Suriname, 15 to 16 October 2009)

DRAFT AGENDA

- Agenda Item 1: Brief presentation on the current situation of REDDIG equipment and nodes
- Agenda Item 2: Maintenance programme of the REDDIG nodes stations
- Agenda Item 3: Logistics of spare parts and optimization of current equipment, as applicable
- Agenda Item 4: REDDIG IP addressing plan
- Agenda Item 5: New services in the Region
- Agenda Item 6: Migration to IS-14 satellite
- Agenda Item 7: Other business

DRAFT AGENDA DESCRIPTION

Agenda Item 1 Brief presentation on the current situation of REDDIG equipment and nodes

The current situation about REDDIG equipment and recommended actions, will be presented. Also, each State member, will make a brief presentation of present situation of their services.

Agenda Item 2 Maintenance programme of the REDDIG nodes stations

The meeting will analyze and review the maintenance programme, and guidelines shall be given with the purpose to update referred programme.

Agenda Item 3 Logistics of spare parts and optimization of current equipment, as applicable

Failures statistics referred to equipment and parts, logistic operations, and number of services provided to the Nodes, will be presented. Also, spare parts logistics and optimization of FRAD equipment in the Nodes will be analyzed, as applicable.

Agenda Item 4 REDDIG IP addressing plan

Recommended IP addressing plan (WAN and LAN) for the services to be given by REDDIG.

Agenda Item 5 New services in the Region

The Meeting will analyze the new and future services in the Region, and also technical guidelines will be given for the implementation of these services.

Agenda Item 6 Migration to IS-14 satellite

Information about Intelsat available procedures for this migration, will be presented, as well as guidelines, in case antenna adjustment is required.

Agenda Item 7 Other business

The Meeting shall be able to examine any other related items, it may deem convenient.

APPENDIX B

INTERNATIONAL CIVIL AVIATION ORGANIZATION

RLA/03/901 REGIONAL PROJECT

REDDIG Management System and Satellite Segment Administration

INTRODUCTION TO SATELLITE COMMUNICATIONS AND REDDIG OPERATION

(Paramaribo, Suriname, 12 to 14 October 2009)

AGENDA

2.1 The satellites

- a. Fundamentals
- b. Orbits
- c. Geostationary satellites – Parameters
- d. Radiation pattern
- e. Frequency bands and services

2.2 Ground stations

- a. Antennas (Teleports, VSAT)
- b. Power amplifiers (HPA, SSPA)
- c. Upper (BUC) and lower (LNB) converters
- d. Modulators/Demodulators (MODEM)
- e. Band base (MULTIPLEXORES) and user interfaces
- f. Monitoring and Control (M&C)
- g. Power system
- h. Ground system
- i. The REDDIG station

2.3 Types of multiple access

- a. By frequency division (FDMA)
- b. By time division (TDMA) – Application in REDDIG
- c. By code division (CDMA)

2.4 Types of allocation

- a. Permanent (PAMA)
- b. On demand (DAMA) - Application in REDDIG

2.5 Design model

- a. Parameters and equations
- b. Link budget
- c. Technical performance
- d. Quality of service (QoS)

REDDIG operation

2.6 NCC/NMS

- a. Linkway system – General aspects and functions
- b. Main commands used
- c. Remote station monitoring and control (M&C)

2.7 Station operation

- a. Local monitoring and control (M&C)
 - Control cabling
- b. Station's "status" page
- c. Control pages
 - SSPA, chain and redundancy
- d. PC Linux
 - Direct access commands
- e. The Minicom programme via PC Linux and console port
 - FRAD
 - MODEM
- f. use of the applications TELNET, FTP
- g. Software support: CxAccess, CxTool
- h. Procedures PROC-FRD
- i. Procedures PROC-MOD
- k. Procedures PROC-SSP

2.8 Diagnosis of failures

- a. Procedures and actions
- b. Simulations

2.9 Satellite migration

- a. Considerations regarding the satellite migration
- b. IS-1R migration to IS-14 satellite

APPENDIX C



International Civil Aviation Organization

Course on Introduction to Satellite Communications

Paramaribo, Suriname, 12 to 14 October 2009

REDDIG Operation and Third Technical-Operational Meeting (RTO/3)

Paramaribo, Suriname, 15 to 16 October 2009

REGISTRY FORM

Participate in:

Course

RTO/03

1.	NAME NOMBRE	
2.	POSITION CARGO	
3.	ORGANIZATION ORGANIZACIÓN	
4.	COUNTRY PAÍS	
5.	TELEPHONE TELÉFONO	
6.	FAX	
7.	E-MAIL CORREO-E	
8.	OFICIAL ADDRESS DIRECCIÓN OFICIAL	

Please send this form to:

E-mail: *mail@lima.icao.int / icao_nacc@mexico.icao.int*

Fax: *+ 52 55 5203 2757*

APPENDIX D



IP/01
14/08/09

International Civil Aviation Organization South American Regional Office

INTRODUCTORY COURSE AT THE SATELLITE COMMUNICATIONS AND REDDIG OPERATIONS AND THIRD REDDIG TECHNICAL OPERATIVE MEETING (RTO/3)

REGIONAL PROJECT RLA/03/901

Paramaribo, Suriname, 12 to 16 October 2009

GENERAL INFORMATION

(Presented by the Secretariat)

1. Meeting Venue and Dates

The sessions of the Introductory Course at the Satellite Communications and REDDIG Operations and the Third REDDIG Technical Operative Meeting will be held at the Training Centre of Civil Aviation Suriname, Paramaribo, located in Coesewijnestraat #2, Zorg & Hoop, from 12 to 16 October 2009.

RLA/03/901 REDDIG – Curso Introducción a las Comunicaciones Satelitales y Operación de la REDDIG y Tercera Reunión Técnico-Operativa (RTO/3)
(Caracas, Venezuela, 31 de agosto al 4 de septiembre de 2009)

2. Address and Contact Information – Meeting Venue

Name: Mr.Rabindre Kumar Maharban
Address: Coesewijnestraat #2, Zorg en Hoop Airport
Telephone: +597497143
Mobile: +5978609255
E-mail: navcom@cadsur.sr and rabindre2000@yahoo.com
Website: www.cadsur.sr

3. Address and Contact Information – ICAO

Name: Luis Alejos Torres
Telephone: 55-92-3652 5714
E-mail: lalejos@lima.icao.int

4. Address and Contact Information – ICAO

*Mr. Onofrio Smarrelli, Regional Officer, Communications, Navigation and Surveillance
ICAO SAM Regional Office*

Telephone: +51 1 611 8686

E-mail: mail@lima.icao.int; osmarrelli@lima.icao.int

5. Participants Registration

Delegate registration will take place on 12 October 2009, from 08:30 to 09:00 hours. The registration table will be located at the entry hall of the Training Centre at Zorg & Hoop. For security purposes, participants are required to wear the identification badge which will be issued to them during registration.

6. Opening Ceremony

The opening ceremony will take place on 12 October 2009, from 09:00 to 09:10 hours.

7. Documentation Link

The event will be carried out in English. The documentation for the Meeting is being posted on the ICAO Website; participants should check our website frequently to download the documentation. **All participants must bring their own set of documentation (hard copy or electronically in a laptop) to the Meeting venue; there will be no hard copies available for distribution.**

8. Hotel reservations

The hotels suggested for this meeting are:

Hotel	Address/ Tel/ Website/E-mail	Simple US\$	Double US\$
Krasnapolsky ****	Domineestraat 39 Paramaribo Tel: +597475050 www.krasnapolsky.sr reservations@krasnapolsky.sr	99.00 Discount for Caricom Nationals, 20%	118.00 Discount for Caricom Nationals, 20%
Queens Hotel ****	Kleine Waterstraat 15 Paramaribo Tel: +597474969 http://www.queenshotelsuriname.com reservations@queenshotelsuriname.com	75.00	92.00
Best Western ****	Frederick Derbystraat 99-100 Paramaribo Tel: +597420007 www.bestwesternsuriname.com frontoffice@bestwesternsuriname.com	124.00	138.00

Introductory Course at the Satellite Communications and REDDIG Operations and RTO/3

Residence Inn ***	Anton Dragtenweg 7 Paramaribo Tel: +597472387 www.resinn.com resinpbo@sr.net	Standard : 80.00 Deluxe : 110.00 Superior : 125.00	Standard : 90.00 Deluxe : 120.00 Superior : 135.00
Spanhoek Hotel ***	Domineestraat 2-4 Paramaribo Tel: +597477888 www.spanhoekhotel.com cdp@spanhoekhotel.com	132.00	152.00
Eco Resort Inn ***	Cornelis Jongbawstraat 16 Paramaribo Tel: +597425522 www.torarica.com reservation@torarica.com	97.00	108.00
Sullies Suites **	Henck Aronstraat 53 Paramaribo Tel: +597520525 www.sulliessuites.com info@sulliessuites.com	49.00 Breakfast not available	63.00 Breakfast not available

Note: *The rates include breakfast and tax. These rates are approximate and are subject to change without prior notice.*

9. Transportation from/to airport

The J.A.Pengel international airport at Zanderij has taxi and bus services during arrival of flights. The airport - hotel taxi rate is approximately US\$ 35, and US\$ 15 for a bus trip.

10. Passport, visa and vaccine requirements

A valid passport and visa are required for citizens from certain countries. To this effect, delegates are kindly requested to complete the formalities well in advance in order to obtain entry visa from the respective embassy or consulate. In addition, to enter the country, it is required that people from certain countries get some vaccines. Please contact the respective embassy or consulate in your country, to enquire whether, in your case, any is required.

11. Temperature

In Paramaribo, the temperature ranges from 22°C to 35°C during the month of October. The average humidity is 45%.

12. Exchange rate and credit cards

The local currency is the Suriname Dollar (SRD) . The current exchange rate is approximately SRD2.75 per US\$1.00. The following international credit cards are accepted in most stores and restaurants: American Express, Master Card, Visa, Diners Club, etc.

Introductory Course at the Satellite Communications and REDDIG Operations and RTO/3

13. Electricity

127 Volts, 60 Cycles.

14. Emergencies

In case of emergency, Academisch Ziekenhuis Paramaribo is recommended, which is located in Flustraat, Tel: 442288.

15. Airport Tax

The airport departure tax for international flights is US\$30 for J.A. Pengel International Airport while departure tax is included in the ticket for Zorg & Hoop Airport (Paramaribo).

- END -