



Agenda Item 4: Assessment of Operational Requirements to Determine the Implementation of Improvements in Communications, Navigation and Surveillance (CNS) Capabilities for Operations in Route and Terminal Area.

REQUIREMENT FOR IMPLEMENTATION OF THE ATS VOICE COMMUNICATION CHANNEL VIA REDDIG II BETWEEN CORUMBÁ (BRA) AND PORTO SUÁREZ (BOL)

(Presented by Brazil)

SUMMARY	
This paper presents the requirement for implementation of the ATS voice channel through REDDIG II between Corumbá (BRA) and Puerto Suárez (BOL), allowing to solve the coordination problems between the Operational Units of these locations.	
References	
<ul style="list-style-type: none">• <i>CIRCEA 100-11/2108: Carta de Acordo Operacional entre ACC-CT (BRA) e ACC-LP (BOL) em relação ao SBCR e SLPS;</i>• SAM/IG/15 Final Report.	
ICAO Strategic Objectives:	<i>A – Safety; and B - Air Navigation Capacity and Efficiency.</i>

1. Background

1.1 Puerto Suárez APP and Corumbá RADIO exchange coordination messages related to the provision of the air traffic service to the inbound/outbound aircraft with IFR flight plan of Puerto Suárez TMA and Corumbá FIZ, as well as to those that will cross the common boundary of the La Paz and Curitiba FIR.

1.2 They also exchange messages related to the provision of the air traffic control service and the transfer of responsibilities with respect to all traffic that crosses the common boundary of both FIRs with La Paz ACC and Curitiba ACC, respectively, so as to comply with the Letter of Operational Agreement between La Paz ACC and Curitiba ACC.

1.3 During the SAM/IG/15 Meeting, the States and territories of the SAM Region agreed to use the REDDIG, Radio Link or International Telephony communication means (the latter as a secondary or tertiary medium) between adjacent border units for all ATS voice services, through a Letter of Operational Agreement.

1.4 Thus, in order to fulfill the responsibilities established by the Letter of Operational Agreement, CIRCEA 100-11, between ACC-CT (BRA) and ACC-LP (BOL) in relation to SBCR and SLPS, the aeronautical administrations of Brazil and Bolivia have committed to keep direct ATS telephone circuits in operation, according to item 4.13 of the Final Report of the Sam/IG/15 Meeting.

2. Discussion

2.1 Brazil and Bolivia have established coordination and operation procedures between Corumbá (SBCR) and Puerto Suárez (SLPS) aerodromes, including direct ATS voice circuits, REDDIG being the main one and another alternative through the public telephone service, according to designations below:

- a) Main voice communication link through REDDIG, between Puerto Suárez APP (2533) and Corumbá RADIO (3091);
- b) Alternative means of communication, through public service telephone lines:
Corumbá: 55 67 3231-8600/55 67 3231-5842 and Puerto Suárez APP: 591 3 976-2022.

2.2 However, several problems were recorded, and the Brazilian operational unit reported absence of direct coordination with the Porto Suárez APP, due to the lack of voice communication with that Bolivian unit.

2.3 The main reason for these problems is the absence of the main ATS voice channel in Porto Suarez, which has not yet been implemented in this Bolivian Operational Unit.

2.4 It should be noted that in the past another means of communication was used to carry out the ATS coordination between Puerto Suárez and Corumbá, in which VHF FM communication radios were used at 170.050 MHz, similar to the one currently used between operational units Guajará-Mirim (SBGM) in Brazil and Guayaramerín (SLGM) in Bolivia.

2.5 However, due to the difficulties in maintaining these VHF FM radios and in the acquisition of spare parts, which are actions under the responsibility of each Administration, the use of this communication medium has been discontinued between SBCR and SLPS, and the continuity of use of radios between SBGM and SLGM is also under analysis.

2.6 It is worth considering that the Digital Network of the SAM Region was modernized (REDDIG II), having as main medium a full-mesh satellite network and MPLS as backup network, both available in all network nodes. Figures 01 and 02 show this topology.

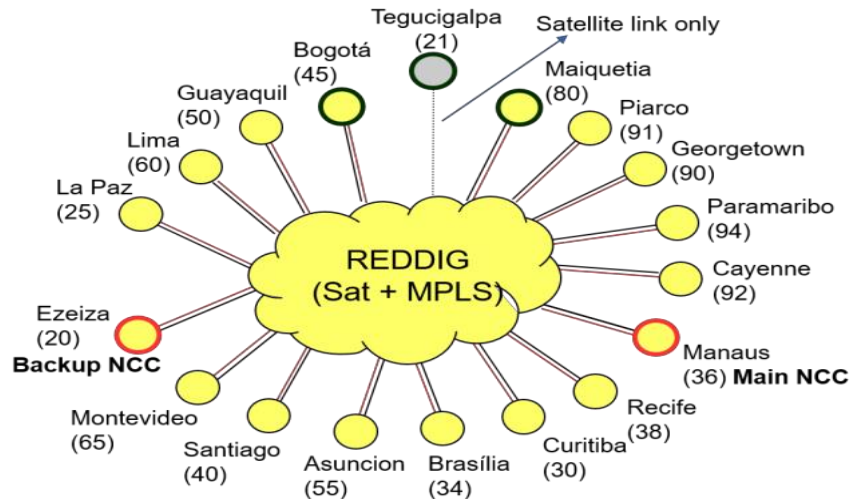


Figure 01 – REDDIG II main and backup network

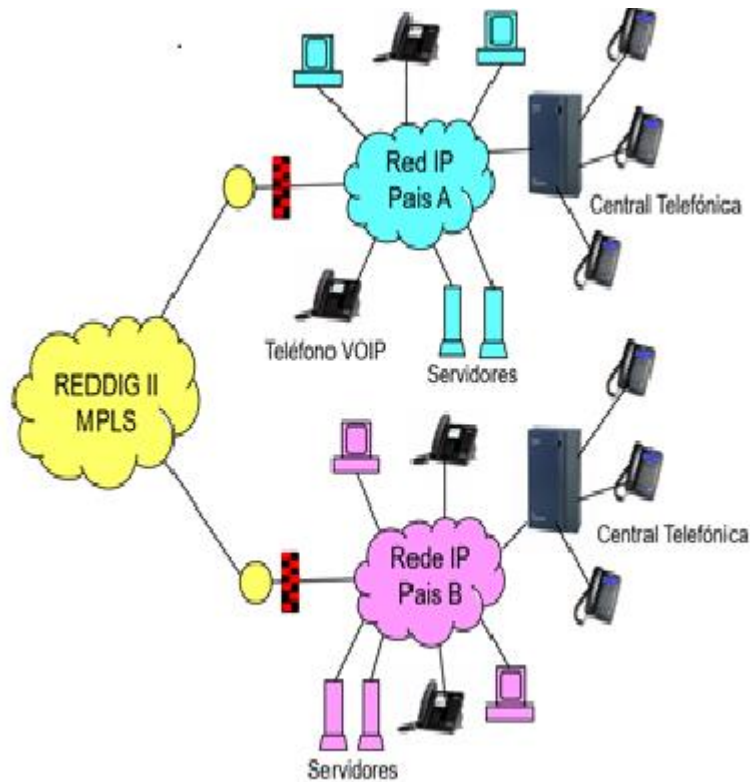


Figure 02 – Regional integrated to the support network

2.7 Thus, considering that La Paz (BOL) and Curitiba (BRA) are REDDIG nodes, both with the main and backup media available, it is recommended that the following actions be taken to activate the main communication link, through REDDIG II, between Puerto Suárez APP and Corumbá RADIO:

- a) Deployment and activation of communication link between La Paz and Puerto Suárez to provide voice connectivity of the APP-PS with the REDDIG node in La Paz;
- b) Activation of telephone extension 2533 in the Puerto Suárez APP through the communication channel cited above.

2.8 Therefore, the implementation of the ATS voice communication channel between Corumbá (BRA) and Puerto Suárez (BOL) via REDDIG II would allow the following benefits:

- Communication between the ACC-CT and the APP-CR with the APP-PS without the costs of International Direct Dialing (IDD) calls and with greater speed;
- Solving the problems of lack of direct coordination with the Puerto Suarez APP;
- Better coordination between the operational sectors responsible in the region;
- Increased safety in the region;
- Avoiding self-coordination between aircraft and APP-PS through the aeronautical frequency 118.50MHz.

3. **Actions Suggested**

3.1 The Meeting is invited to:

- a) Take note of the information provided;
- b) Approve the necessary actions of item 2.5 of this paper;
- c) Indicate that in the next meeting of the REDDIG Coordination Committee the necessary measures will be taken to assist in the activation of the ATS voice channel via REDDIG II in Puerto Suárez (BOL);
- d) Consider other aspects deemed needed.

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