



SAM/IG/3  
WP/03  
19/02/09

**International Civil Aviation Organization  
South American Regional Office**

**THIRD WORKSHOP/MEETING OF THE SAM IMPLEMENTATION GROUP  
(SAM/IG/3)  
REGIONAL PROJECT RLA/06/901**

**Lima, Peru, 20 to 24 April 2009**

**Agenda Item 2: Optimization of the ATS routes structure**

**RESULT OF THE COORDINATION FOR RNAV ROUTES IMPLEMENTATION**

(Presented by the Secretariat)

**Summary**

This working paper presents information on the status of implementation of RNAV routes received by Ad-hoc groups integrated by delegations of IATA and the FIRs involved, created at the SAM/IG/02 Meeting.

**References:**

- Second Workshop/Meeting (SAM/IG/2) Report

**ICAO Strategic objectives**

**Strategic Objective C** *Environmental Protection*

**Strategic Objective D** *Efficiency*

**1 Background**

1.1 The optimisation of the ATS routes structure in the terminal airspace (SID/STAR and RNAV) and en-route (RNAV), as well as the implementation of RNP approaches are associated to **Result 1.1 of Immediate Objective N° 1 of Project RLA/06/901**, Implementation of performance based navigation (PBN). Within this optimisation, the ATS routes network will continue to be improved, and if such were the case, those conventional routes that are not used by airspace users will be eliminated and will be replaced by RNAV routes.

1.2 As it may be recalled, during SAM/IG/01 and SAM/IG/02 Meetings, and in addition to continuing with the revision, implementation, modification, and/or elimination of routes in the SAM Region, to continue with the optimisation of ATS routes structure in the SAM, Region, it was agreed on the need that States review their respective national RNAV implementation programmes to be compatible with the SAM Region RNAV implementation programme. This revision, at a national level should procedure a national RNAV Implementation Plan, where real implementation needs are determined, the impact that implementation would have in the national and international airspace implementation, fleet crew, as well as the possible consequences of changes in air traffic services provision, and pertinent coordination be established, especially with military authorities, to enable integrated, harmonious and timely implementation of more direct RNAV routes.

1.3 This task has acquired more relevance, if we consider that the Region has focused its attention to analyse the feasibility of an optimisation of the ATS routes network, even deeper, through airspace restructuring and therefore to obtain an ATS routes network to respond the current and future requirements of international civil aviation in the Region.

## 2 Discussion

2.1 To this end, several ad-hoc groups were created, and composed by delegations of IATA and the FIRs involved, to analyse the feasibility of its implementation, agreeing that ad-hoc groups created to carry out such works, would have a 30 days deadline upon the finalisation of such meeting, in order to review within the environment of their respective administrations, and propose the changes deemed pertinent.

2.2 It was also agreed that the communications channels to be used for this coordination would be the use of tele-conferences previously agreed by e-mail. The results of such coordination should be informed to the Secretariat, in order to enable the preparation of the corresponding proposal for amendment to CAR/SAM ANP Table ATS.

2.3 In this connection, the Secretariat has made coordination with States/International Organizations and the information received to the date of the preparation of this working paper, is shown in **Appendix A**.

## 3 Suggested action

3.1 The meeting is invited to take note and review the information provided in **Appendix A** to this working paper, and the ad-hoc groups that have not done so yet, to deliver to the ICAO Secretariat the result of their respective works, as soon as possible.

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**APPENDIX A**

**Puente Aéreo Montevideo-Buenos Aires**

- During the SAM/IG/2 Meeting, Uruguay informed that they would continue working in order to eliminate any communications, problem, sectorisation or radar reflections for its implementation in the Montevideo FIR. On the other hand, Argentina informed that they are ready to cooperate and implement the referred route, as required.

In view of the above, the ad-hoc group agreed to suspend coordination aimed at the implementation of this route.

**Route RNAV VOR CRR/VOR FNO**

- The Uruguayan Administration has observed that the route proposed in the segment of Montevideo FIR keeps the same coordinates that the current route and that the major change would be as of VOR PTS (Pelotas). Consequently, the provision of coordinates in the segment VOR PTS/ VOR FNO by Brazil is pending.

**UM530 in the segment VOR BRS up to VOR RBC**

Bolivia and Brazil have agreed the date 12 March 2009 for its entry in force, including the updating of the letter of operational agreement between La Paz and Amazônico ACCs for the referred route.

<b>ESPACIO AÉREO SUPERIOR / UPPER AIRSPACE</b>		
<b>UM 530</b>		
<b>Designador Designator</b>	<b>Latitud Latitude</b>	<b>Longitud Longitude</b>
<b>Brasilia VOR</b>	S15°52'26"	W048° 01'17"
<b>PAPES</b>	S14°29'29"	W049°56'56"
<b>DADRI</b>	S14°02'24"	W050°34'07"
<b>DIMUB</b>	S13°33'34"	W052°11'56"
<b>BUBOM</b>	S12°54'37"	W055°58'55"
<b>PARDO</b>	N12° 16'18"	W059°05'04"
<b>BUVKI</b>	N10°34'35"	W065°24'46"
<b>DADED</b>	N10°08'58"	W066°55'35"
<b>Branco VOR</b>	N09°52'19"	W067°53'44"

**Guayaquil – Madrid**

<b>ESPACIO AÉREO SUPERIOR / UPPER AIRSPACE</b> <b>GUAYAQUIL – MADRID <b>UM 662</b></b>		
<b>Designador</b> <b>Designator</b>	<b>Latitud</b> <b>Latitude</b>	<b>LONGITUD</b> <b>Longitude</b>
<b>Guayaquil VOR</b>	S02° 07' 42''	W079° 52'01''
<b>ASAPO</b>	N01° 08' 57''	W079° 13' 54''
<b>UMGEB</b>	N00° 21'47.18''	W077° 24'21.48''
<b>KADED</b>	N06° 37'01.3''	W069° 48'12.9''
<b>CABO CODERA VOR</b>	N10°34'24.8''	W066°03'00.2''
<b>ONGAL</b>	N12° 51'15''	W063° 38'46''
<b>Fort De France VOR</b>	N14° 35'24''	W061° 01'24''

As informed by States involved, this route will finally be coordinated in the totality of its trajectory once Venezuela confirms the trajectory resulting from the consultations carried out with military authorities to avoid a restricted airspace located within the Maiquetía FIR.

**Lima – Madrid**

<b>ESPACIO AÉREO SUPERIOR / UPPER AIRSPACE</b> <b>Lima – Madrid <b>UM 527</b></b>		
<b>Designador</b> <b>Designator</b>	<b>Latitud</b> <b>Latitude</b>	<b>Longitud</b> <b>Longitude</b>
<b>Lima VOR</b>	S12°00'30'	W077 07'22''
<b>SIGOB</b>	S08°28'16''	W073°20'18''
<b>AKTOR</b>	S04°00'34''	W068°44'13''
<b>MULIP</b>	S02°29'53''	W067°12'10''
<b>AKNOV</b>	S00°50'33''	W065°20'47''
<b>DOBDA</b>	N04 43'56''	W059°55'40''
<b>TIM VOR</b>	N06°29'53''	W058°15'46''
<b>UMREM</b>	N07°56'06.73''	W057°00'03.66''
<b>TRAPP</b>	N09°05'06''	W055°59'30''

States involved have agreed that the date for entry in force would be **07 May 2009**.

**Santiago – Miami**

- - No information

**UL306; UM782-UL201-UA317; UA307**

As agreed during the SAM/IG/2 Meeting, the ad-hoc groups composed by IATA and States involved, would carry out the necessary revision of routes which are pending from coordination, as shown in the following chart:

<b>Route</b>	<b>REMARKS</b>
<b>UL 306</b>	Coordination between BRAZIL, FRENCH GUYANA AND SURINAME is pending.
<b>UM782 UL201 UA317</b>	Brazil shall inform on the modifications resulting from the realignment of these routes.
<b>UA307</b>	Realignment for direct route between Santiago (Chile) and Sao Paulo (Brazil) ARGENTINA, BRAZIL, IATA
<b>San José (C. Rica) – Santo Domingo</b>	IATA shall coordinate wit NACC Regional Office and CAR States SAM Regional Office shall coordinate with IATA, Colombia and Panamá.

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