

**International Civil Aviation Organization  
UNDP/ICAO Regional Project RLA/98/003  
Transition to the CNS/ATM Systems in the CAR and SAM Regions**

**Third Meeting/Workshop of Air Traffic Management (ATM) Authorities and Planners  
(Lima, Peru, 20.24 May 2002)**

**Agenda Item 1: Evaluation of pre-operational trials and demonstrations in RNAV routes UT 410 (Buenos Aires-Miami), UT 655 (Sao Paulo-Los Angeles) and UT 776/UT 419 (Sao Paulo/Rio de Janeiro-New York) for their definitive implementation.**

(Presented by the Secretariat)

**Summary**

This working paper offers an analysis of whether or not it would be advisable to propose an amendment to include RNAV routes UT 410, UT 419/UT 776 and UT 655, on which pre-operational trials and demonstrations are being conducted, in the CAR/SAM Basic Air Navigation Plan.

**References:**

- Report of the Second Meeting/Workshop of ATM Authorities and Planners of the CAR/SAM Regions
- Reports presented by the States involved in the pre-operational trials and demonstrations
- Project RLA/98/003 "Transition to the CNS/ATM Systems in the CAR/SAM Regions".

**1 Introduction**

1.1 As is well known, the CAR/SAM RAN/3 Meeting incorporated the CAR/SAM route network into the CAR/SAM Basic Air Navigation Plan.

1.2 Furthermore, pre-operational trials and demonstrations are being conducted on RNAV routes UT 410 (Buenos Aires – Miami), UT 655 (Sao Paulo – Los Angeles), UT 776 (Sao Paulo – New York) and UT 419 (Rio de Janeiro – New York) within the framework of Project RLA/98/003.

1.3 These pre-operational trial and demonstration routes will not be a part of the CAR/SAM route network until they are included in the Basic ANP.

1.4 This meeting should assess the results of the aforementioned pre-operational trials and demonstrations in order to determine whether the conditions for use of the cited routes meet all of the necessary requirements for stability and decide whether they should be implemented definitively.

## 2 Analysis

2.1 In view of the foregoing, the meeting should study the advisability of starting the amendment process to include routes UT 410, UT 655, UT 776 and UT 419 definitively in Table ATS-1 of the CAR/SAM Basic Air Navigation Plan.

2.2 If the meeting decides that the amendment process for inclusion of the routes in question should be initiated as soon as possible, **Appendix A** to this working paper offers a model draft amendment to the Basic ANP for consideration.

## 3 Suggested action

3.1 The meeting is invited to:

- a) Take note of the information provided and decide to start as soon as possible the process of amendment and definitive implementation for inclusion of trial and demonstration routes UT 410, UT 655, UT 776 y UT 419 in the RNAV route network of the CAR/SAM Regional Basic Air Navigation Plan; and
- b) If appropriate, examine the model draft amendment to the Basic Air Navigation Plan which appears in **Appendix A** to this working paper, with a view to its approval.

## Appendix A

### Proposal for amendment to incorporate routes UL 410, UL 655, UL776 and UL419 in Table ATS-1 ATS Routes Network to the CAR/SAM Basic ANP – ATM

**Note:** The routes designators of the referred routes shall be modified according to Appendix 1 of Annex 11.

**Subject:** Proposal for amendment to the CAR/SAM Air Navigation Plan (Serial N° SAM -XX-ATM)

a) **Plan:** Basic CAR/SAM ANP (Doc. 8733)

b) **Proposal for Amendment:**

1. **Add** the requirement for new ATS routes UL 410, UL 655, UL 776 and UL 419, as follows:

Upper airspace UL 410	Upper Airspace UL 655
CERES (ERE) VOR	BAURU (BRU) VOR/DME
MONTE QUEMADO (MTQ) VOR	EGIMO
ELAKA	ISENA
ISARA	ASAPA
BRANCO (RBC) VOR/DME	PABON
ARUXA	ASEPI
PABON	EGODI
IROTI	ASOKU
EGAPO	UGATA
MANLEY (MLY) VOR/DME	NAUTLA (NAU) VOR/DME
PULKA	IREKO
MANZANILLO (UMZ) VOR/DME	CONCEPCIÓN (CDR) VOR/DME
	UDIPO
	PEÑASCO (PPE) VOR/DME
	ASUTA
	JULIAN (JLI) VOR/DME

Upper airspace UL 776	Upper airspace UL 419
BRASILIA (BRS) VOR/DME	CONFINS (CNF) VOR/DME
MEVOS	TIRIOS (TIR) NDB
TIRIOS (TIR) NDB	
NEKOB	
KAISO	
ANU	

(cf – Doc. 8733, Table ATS-1 – ARN)

2. **Suppress** the requirement of the segment .....of route UL .....  
 And the segment .....of route UL ..... (if such were the case).

(cf.- Doc 8733, Table ATS-1 – ARN)

c) **Originated by:** Argentina, Bolivia, Brazil, Colombia, Cuba, Guyana, Jamaica, Mexico, Panama, Suriname, Trinidad and Tobago, United States, COCESNA, and IATA

d) **Reasons of the originator for the amendment:**

1. Within the framework of ATM Evolution as approved by the Third CAR/SAM Regional Air Navigation Meeting (RAN CAR/SAM/3) the States and International Organizations which originate this proposal for amendment have carried out pre-operational trials and demonstrations in RNAV routes RNAV XXX, XXX and XXX duly coordinated with users.
2. The result of these pre-operational trials and demonstrations has been highly satisfactory, reason for which it is considered that these routes are stable enough to be incorporated to the ATS routes network of the Basic CAR/SAM ANP. This agreement was taken in the Third Meeting/Workshop of Air Traffic Management (ATM) Authorities and Planners (AP/ATM/3) held in Lima, Peru, from 20 to 24 May 2002.
3. The lateral spacing between routes UT..... And UL..... in the segment comprising ..... And,..... is lower than ..... and between routes UT..... And UL ..... in the segment comprised between ..... and ..... is lower than ....., which, for ATS effects, is considered as only one route, reason for which its deletion is proposed (IF SUCH WERE THE CASE).

e) **Proposed date for implementation:**

Two AIRAC cycles after the proposal for amendment be approved by ICAO Council.

f) **Proposal circulated to the following States/Territories and Organizations:**

Antigua and Barbuda	Honduras
Antillas Neerlandesas (NK)	Italy
Anguilla (UK)	Jamaica*
Argentina*	Mexico*
Aruba (NK)	Montserrat
Bahamas	Nicaragua
Barbados	Panamá*
Bermuda (UK)	Paraguay
Belize	Perú
Bolivia*	Puerto Rico (USA)
Brazil*	Saint Kitts and Nevis
British Virgin Islands (UK)	Saint Lucia
Canada	Saint Vincent and the Grenadines
Cayman Islands (UK)	Spain
Chile	Suriname*
Colombia*	Trinidad and Tobago*
Costa Rica	Turks and Caicos Islands (UK)
Cuba*	United Kingdom
Dominica	United States*
Dominican Republic	Uruguay
Ecuador	Venezuela
El Salvador	Virgin Islands (USA)
France	
French Antilles (France)	International Organizations
French Guyana (France)	COCESNA*
Germany	IATA*
Grenada	IFALPA
Guatemala	
Guyana	
Haití	

\* For information

g) **Comments of the Secretariat:**

1. The inclusion of routes XXX, XXX and XXX in the Basic Air Navigation Plan for the CAR/SAM Regions is framed within the ATM evolution process in the CAR and SAM Regions, as approved by GREPECAS and further addressed through CAR/SAM/3 RAN Recommendations 5/14, 5/15 and 5/16.

2. The trajectories have been configured keeping in mind the need to save fuel and air operations economy and its inclusion in the ANP will permit a wider use of such routes, favoring a greater number of the mentioned airspace users.
3. These ATS routes are being used in pre-operational trials, as part of RNAV trials and demonstrations of the CAR/SAM Regions, within the framework of Project RLA/98/003.
4. The deletion of routes UL ..... and UL..... is framed within the ATM Evolution Plan and in the near future, will enable the implementation of parallel routes with RNP10 values (IF SUCH WERE THE CASE).

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