



Agenda Item 6: Other business

**Review of the Letter of Operational Agreement between the
Cayenne Area Control Centre and the Amazônico Area Control Centre**

(Presented by Brazil)

SUMMARY	
<p>This working paper presents the proposal for updating the Letter of Operational Agreement between the Cayenne Area Control Centre and the Amazônico Area Control Centre, with update in Appendix 1 - <i>Reference Table for Transfer of Responsibility</i>, in order to insert the longitudinal separation of 40 NM GNSS, and in Appendix 2 - <i>contingency procedures between the ACC</i>.</p>	
Reference:	
<ul style="list-style-type: none">- Report on SAM/IG/15 meeting;- SAM ATS Routes Network Optimization Programme;- PANS/ATM (Doc 4444); and- Letter of Operational Agreement between Cayenne Area Control Centre and Amazônico Area Control Centre	
ICAO strategic objectives:	<ul style="list-style-type: none"><i>A - Safety</i><i>B - Air Navigation Capacity and Efficiency</i><i>E - Environmental protection</i>

1 Introduction

1.1 The SAMIG/15 Meeting recognized that the reduction of longitudinal separation, either in a conventional operational environment, or radar, may provide greater efficiency of operations in the SAM Region.

1.2 Taking into consideration that the reduction of longitudinal separation from 10 minutes or 80 NM directly to a separation of 20 NM in a conventional environment could represent a significant impact on the operational procedures currently applied, the SAM/IG/15 meeting agreed it would be convenient analysing a gradual reduction in a first phase, considering a reduction of the longitudinal separation of 40 NM.

1.3 In this regard, the SAM/IG/15 meeting formulated the following Conclusion:

Conclusion SAM/IG/15-4: Reduction of the longitudinal separation between aircraft in the SAM airspace

That, taking into account the operational benefits to be gained from reducing the longitudinal separation of aircraft in the SAM airspace, States:

- a) investigate the possibility of reducing the longitudinal separation of aircraft at 40 NM between adjacent FIRs using the Mach number technique;
- b) their application be included in the Letters of Operational Agreement; and
- c) the Secretariat include this implementation in the GREPECAS ATFM Project and its Action Plan.

2 Discussion

2.1 Considering the aforementioned Conclusion of the SAM/IG /15 meeting, the proposed changes to the Letter of Operational Agreement between the Amazônico ACC and the Cayenne ACC are attached to this working paper, with a view to introduce the longitudinal separation of 40 NM.

3 Suggested actions

3.1 The Meeting is invited to:

- a) take note of the information provided in this working paper;
- b) review the proposed changes in the Letter of Operational Agreement between the Amazônico ACC and the Cayenne ACC, attached as **Appendix A** to this working paper, especially the inclusion of the minimum longitudinal separation of 40nm GNSS, to enter into force in December 12, 2015.

APPENDIX A

**REVIEW OF
LETTER OF OPERATIONAL AGREEMENT
BETWEEN FRENCH GUIANA
(CAYENNE ACC) AND
BRAZIL (AMAZÔNICO ACC)**

**LETTER OF AGREEMENT BETWEEN
CAYENNE AREA CONTROL CENTER AND AMAZÔNICO AREA CONTROL
CENTER**

SUBJECT: Procedures relating to the coordination of air traffic between the Cayenne and Amazônico ACC.

1 INTRODUCTION

1.1 EFFECTIVE DATE: 12th December 2015

1.2 OBJECTIVE:

1.2.1 The objective of this Letter of Agreement is to establish operating procedures for the coordination and routing of air traffic between the Cayenne and Amazônico CTA/FIR.

1.3 SCOPE:

1.3.1 The procedures contained in this Operational Letter of Agreement supplement or detail, when so required, the procedures prescribed by ICAO in the pertinent documents and shall be applied to all air traffic that cross the common boundary of the Cayenne and Amazônico UTA/CTA/FIR.

1.3.2 Except as provided for in 1.3.1, in the event of disruption or potential disruption of ATS and related support services, the procedures as outlined in ATM Contingency Plan in Appendix 2 shall apply.

2 CONTROL PROCEDURES

2.1 ROUTING OF IFR AIR TRAFFIC:

2.1.1 Except for prior coordination effected individually for each flight off airways, the air traffic between the Cayenne UTA/CTA and the Amazônico UTA/FIR shall be routed along ATS Routes published in the respective AIP.

2.2 ASSIGNMENT OF FLIGHT LEVELS:

2.2.1 ALLOCATION OF NON RVSM LEVELS

2.2.1.1 Except for prior coordination, the Cayenne and Amazônico ACC shall assign Flight Levels corresponding to the magnetic tracks for aircraft operating at FL 280 and/or below and FL 430 and/or above as shown in the table of cruising levels in Appendix 3 of ICAO Annex 2.

2.2.1.1.1 ALLOCATION OF RVSM FLIGHT LEVELS

REPORTING POINT	TRACK 000 – 179° (EAST)	TRACK 180 – 359° (WEST)
OTONI	ODD LEVELS	EVEN LEVELS
OIAPOQUE	ODD LEVEL	EVEN LEVEL
ARNAM	ODD LEVEL	EVEN LEVEL

2.3 SEPARATION

2.3.1 LONGITUDINAL

2.3.1.1 The minimum longitudinal separation applicable between flights that are to be transferred at the same cruising level in the same ATS route or routes or convergent trajectories, not be less than that specified in each case in Appendix 1 to this letter Operational Agreement

2.3.2 VERTICAL

2.3.2.1 Vertical separation shall be as follows:

Aircraft	Separation		
	FL 290 and bellow	FL 290 – FL 410	FL 410 and above
RVSM Approved	1000 feet	1000 feet	2000 feet
Non-RVSM approved		2000 feet	

2.4 TRANSFER OF RESPONSIBILITY FOR AIR TRAFFIC SERVICES:

2.4.1 Except for prior coordination, the transfer of responsibility for aircraft operating between the Cayenne UTA/CTA and the Amazônico FIR/UTA shall be the common boundary or ATS route transfer point, according to Appendix 1 - Reference TABLE for the transfer of responsibility.

3. COORDINATION PROCEDURES

3.1 GENERAL:

3.1.1 Coordination between the Cayenne and Amazônico ACC shall be effected in accordance with standards, recommended practices, and procedures prescribed by ICAO.

3.1.2 The primary means of coordination for all active air traffic between the Cayenne and Amazônico FIR shall be the direct speech circuit (REDDIG).

3.1.3 All coordination/approval involving active air traffic shall be effected with the appropriate ATS Unit at least twenty (20) minutes prior to the aircraft's estimate for the transfer of control point.

3.1.4 Departure and arrival messages shall be required for VFR flights originating and terminating at airports located within the Cayenne and Amazônico FIR boundaries.

3.1.5 In the event that the above procedures cannot be carried out because of failure of the Cayenne/Amazônico direct speech circuit, coordination of all air traffic shall be effected.

a) AFTN ROCHAMBEAU: XXXXZQZX
Telefax: ACC Rochambeau (00 594) 594 304 124

b) AFTN AMAZÓNICO: SBZZQZX
Teléfono ACC Amazónico: (55 - 92) 3652-1401; 36525318
Sala PLN del ACC Amazónico: (55 - 92) 36525373

3.1.5.4 **Via HF**

3.1.5.5 Via aircraft

(i) IFR aircraft shall be cleared to a point within the area of responsibility of the transferring ACC at an appropriate level for direction of flight and aircraft shall be requested to contact receiving ACC and obtain clearance to enter airspace under jurisdiction of receiving ACC.

(ii) The receiving ACC shall clear aircraft into its area of responsibility and shall not authorize flight level or route changes until the aircraft advises that the transferring ACC has concurred.

(iii) The receiving ACC shall instruct the aircraft to advise the transferring ACC when crossing the common boundary.

3.2 COORDINATION FOR RVSM OPERATIONS

3.2.1 Estimate messages (EST) shall be transmitted for all flights crossing the common FIR boundary, at least 60 minutes before the estimate time of the aircraft over the transference of the control point when non-RVSM approved aircraft are involved, with the intention to operate within RVSM airspace, as a mean to facilitate planning for the integration of such air traffic, according to a 2000 feet vertical separation minimum.

3.2.2 A clear indication should be made on the status of approval of non-RVSM approved aircraft and its request for a special treatment as an integral part of the estimated message:

- a) as a confirmation of the data filed in the flight plan;
- b) to anticipate the case of performance degradation of the flight planning systems;
- c) to anticipate the case the accepting unit has not received the flight plan.

3.2.3 Verbal coordination of estimate messages (EST)

3.2.3.1 When a verbal coordination process is being used, the ACC transmitting an estimate message shall include at the end of the same, the information included in box 18 of ICAO flight plan on RVSM operations.

3.2.3.2 If applicable, at the end of the estimate message, the term **NEGATIVE RVSM** *or* **NEGATIVE RVSM STATE AIRCRAFT** *or* **NEGATIVE RVSM HUMANITARIAN FLIGHT** *or* **NEGATIVE RVSM MAINTENANCE FLIGHT** *or* **NEGATIVE RVSM FERRY FLIGHT** , shall be included.

3.2.3.3 For the case in which only one aircraft experiences a flight contingency, the associated coordination messages shall be provided orally, with a description of the reason of the contingency. The associated coordination messages shall incorporate either the term:

- a) RVSM inability due to the equipment, *or*
- b) RVSM inability due to turbulence, as the case may be.

3.2.4 RVSM operations suspension

3.2.4.1 The Amazônico ACC and the Cayenne ACC shall coordinate the procedures for RVSM suspension within the areas affected in the Amazonic FIR and Cayenne FIR, when pilots report turbulence that is greater than moderate. Within the areas where RVSM procedures have been suspended, the vertical separation minimum between all aircraft shall be 2000 feet.

3.2.4.2 In case of RVSM operations suspension, the following Table of Cruising Levels shall be used:

Magnetic Track	000° a 179°	180° a 359°
Flight Level		FL 300
	FL 330	
		FL 360
	FL 390	

3.3 COMMUNICATIONS

- 3.3.1 The transfer of air-ground communications of an aircraft from a transferring ACC to the receiving ACC shall be made at the common Flight Information boundary.
- 3.3.2 The receiving ACC shall not notify the transferring ACC that it has established ground-air communications with the transferred aircraft unless specifically requested to do so.
- 3.3.3 The Amazônico ACC shall transfer aircraft communications to the Cayenne ACC on frequency 126.9Mhz 127.2 Mhz or Cayenne Flight Information Center on frequency 126.9Mhz.
- 3.3.4 The Cayenne ACC shall transfer aircraft communications to Amazônico ACC on a specific VHF frequency defined by the Supervisor of the Amazônico Center during the process.

3.4 ATFM coordinations

- 3.3.4 The coordinations with ATFM measures between the ACC shall contain, at least, the following informations:
 - a) The requesting ATS facility identification;
 - b) Estimated time to begin the ATFM measure application;
 - c) If possible, the estimated duration of the ATFM measure application;
 - d) The ATFM measure end;
 - e) Aerodromes, ATC facility sectors, TMA, FIR involved with the ATFM measure application; and
 - f) Types of separations associated with the ATFM measures application, ie, time set, distance, radar and non-radar.
- 3.3.5 ACC supervisors, in coordination with a Flow Management Unit (FMU) or a Flow Management Position (FMP), must ensure that the ATCO under their responsibility are aware of the ATFM measures taken.

4 REVISIONS

- 4.1. This agreement shall be subject to revision whenever a modification of Standards, recommended methods of supplementary regional procedures of ICAO occurs which might affect the procedures contained in this agreement, or when new communications facilities, or new air traffic services which might affect these procedures are commissioned. In the case of changes in ICAO regulations, the Cayenne ACC or the Amazônico ACC shall initiate the amendment of this agreement and in the cases of new installations or modification of existing installations, the facility concerned shall initiate the modification procedure. For any other matter which might make it advisable to change the agreement, the interested facility shall propose the pertinent revision.

5 DISSEMINATION

- 5.1 The pertinent portions of this LOA and its subsequent modification, taking into consideration the interest of the Aircraft Operators, shall be included in their respective AIP.

In representation of French Guiana:

In representation of Brazil:

Eduardo Miguel Soares - Cel Av
Assistant of Subdepartament of Operations
DECEA

APPENDIX 1

The letter of operational agreement signed between the Cayenne and Amazônico Centers

Reference TABLE for the transfer of responsibility

Date of effectiveness: 12th December 2015

ATS Route	Table of flight levels to be assigned by:		Agreed transfer points for each route	Minimum applicable for longitudinal separation	
	Amazônico ACC	Cayenne ACC		NM	Comments
1	2	3	4	5	6
	FL	FL			
UG449 UZ41 G449	EVEN	ODD	OTONI n02 39.98/w052 30.03	40 NM (a) 10(b) (ca)	(a) In the event of the application of 40 NM RNAV longitudinal separation minima not be possible, due to technical or operational reasons, it will be applied a minimum longitudinal separation of 80 NM or dez (10) minutes between aircraft flying at the same flight level. (b) The separation will increase by 5 minutes when links fail oral the Service ATS.
UA555 G443	EVEN	ODD	OIAPOQUE NDB n03 51.59/w051 47.87		
UM791	EVEN	ODD	ARNAM n04 44.00/w049 38.05		

In representation of French Guiana:

In representation of Brazil:

Eduardo Miguel Soares - Cel Av
Assistant of Subdepartament of Operations
DECEA

APPENDIX 2

SIMPLIFIED NETWORK OF ROUTES IN CASE OF CONTINGENCY IN THE AMAZONICA FIR

PROCEDIMIENTOS DE CONTINGENCIA ENTRE LOS ACC AMAZÓNICO Y ROCHAMBEAU				
CONTINGENCIA PARCIAL EN LA FIR AMAZÓNICA				
ORIGIN	DESTINATION	ROUTE/SEGMENT	TRANSFER / AUTO TRANSFER	
			FIX	FLIGHT LEVEL
FIR CAYENNE	TMA BELEM	OIA UA555	NDB OIA	To be assigned by the ATC
		OIA G443	NDB OIA	To be assigned by the ATC
		OTONI G449	OTONI	To be assigned by the ATC
TMA BELEM	FIR CAYENNE	UA55 OIA	NDB OIA	To be assigned by the ATC
		UG449 OTONI	OTONI	To be assigned by the ATC
		G443 OIA	NDB OIA	A ser asignado por el ATC
CONTINGENCIA TOTAL EM LA FIR AMAZÓNICA				
ORIGIN	DESTINATION	ROUTE/SEGMENT	TRANSFER / AUTO TRANSFER	
			FIX	FLIGHT LEVEL
FIR CAYENNE	FIR RECIFE	OTONI UG449 FL290 BEL F280 UZ3 DAPTA	OTONI DAPTA	FL290 Y FL280
		OTONI UG449 FL350 BEL FL340 UZ3 DAPTA	OTONI DAPTA	FL350 Y FL340
FIR RECIFE	FIR CAYENNE	DAPTA UZ3 FL310 BEL FL320 UG449 OTONI	DAPTA OTONI	FL310 Y FL320
		DAPTA UZ3 FL370 BEL FL380 UG449 OTONI	DAPTA OTONI	FL370 Y FL380

In representation of Brazil:

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