



AP/ATM/11
WP/08
21/09/05

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

**ELEVENTH MEETING/WORKSHOP OF ATM AUTHORITIES AND PLANNERS IN THE
CAR/SAM REGIONS
(AP/ATM/11)**

(Lima, Peru, 28 to 30 September 2005)

Agenda Item 6: Other matters

Brazilian ATM Contingency planning

(Presented by Brazil)

Summary

The objective of this Working Paper is present the Brazilian ATS Contingency Plan, to effects of considering a plan coordinated for handling the air traffic services, in the event of no availability of one of the area control centers (ACC) of the Atlantic, Amazonic, Recife, Brasília and Curitiba FIR.

References:

- The Tenth Meeting of the GREPECAS Working Paper (GREPECAS/10), (Las Palmas, October 23 to 27, 2001)
- Appendix D to the Annex 11

1 Introduction

1.1 The States responsibility to manage the air traffic brings the necessity to establish appropriate and interrelated contingency plans and for the safe and coordinated handling of the airspace during an unexpected failure of one of the ATS centers in the Regions.

1.2 The purpose of this working paper is to commence discussions for the establishment of these contingency procedures and its safe diffusion.

2. Analysis

2.1 The purpose of the Plan contained in the Appendix A of this WP is to inform the other States concerned about Brazil's Contingency Plan during the failure events, other facilities and services work when those foreseen in regional Plans of air navigation are interrupted and it is responsibility of the States of instituting the necessary measures dedicated to guarantee safe operations of the international civil aviation.

2.2 These ATM Contingency Plans will contemplate the own activity in each FIR and establish a Regional ATS plan of contingency (intra and inter-regional) considering the main flows of traffic in CAR, SAM and SAT Regions.

2.3 Brazil's Contingency Plan was sent in June 2005 to all the Adjacent States for purpose of analysis and suggestions.

2.4 Brazil's Contingency Plan after the harmonization period will be sent to the Council President of ICAO for approval and after that it will be published in the AIP so that all the States involved may be well aware of all the Plans in general.

2.5 The best course of action to harmonize the ATS contingency plans is to maintain appropriate coordination through electronic correspondence, but that States having difficulties in coordinating their contingency plans would hold bilateral or multilateral meetings, assisted by the ICAO, in order to reach national contingency plans duly updated and harmonized with the adjacent FIRs.

2.6 The contingency plans should form part of the ATS Letters of Agreement (LOA) between ATS units. The LOA should contain a paragraph reflecting that the contingency plan is contained as an appendix to the LOA. LOAs currently in place should be amended to reflect the decision reached.

3. Conclusions

3.1 By the light of all exposed above, it should be recognized that it is essential to have contingency measures that should be applied in the event of partial or total interruption of the air traffic services and support services so that, in those circumstances, the main international routes keep on available.

3.2 In order the ATS units involved may know about the procedures foreseen for each Adjacent State and keep these procedures up-to-date, it would be important to count on a summary of the Plans in the Operational Agreement Charts, in accordance with Appendix B to this WP.

4. Suggested action

4.1 The Meeting is invited to take note of the content of **Appendix A** and **B** to this Working Paper and consider that with an additional effort, Brazil and all the States involved, establish necessary coordination in order to harmonize the plans of contingency and add, in the next Meeting, the summary of each Plan of Contingency in the Letters of Agreement, that could be used, when the circumstances so require it.

4.2 The Meeting is invited to adopted the following Draft Conclusion:

Draft Conclusion AP/ATM/11/XX ATS contingency plan

That SAT States:

- a) make efforts to harmonize the ATS Contingency plan among States involved by **30 March, 2006** and send a copy of their ATS Contingency plan to the corresponding ICAO Regional Office by **30 June 2006**;
- b) publish the relevant parts in the AIP;
- c) after the publication above mentioned, insert as an appendix of the respective letter of agreement (LOA), the pertinent parts of the ATS contingency plan;
- d) The revisions of the appendix related to the ATS Contingency Plans should be coordinated between the States involved, through appropriate electronic means. In order to provide flexibility in the update of the mentioned plan, there will be no need to sign changes to this appendix; and
- e) with that aim use the model shown at **Appendix XX** to this part of the report.

APPENDIX A

AERONAUTIC COMMAND

AIRSPACE DEPARTMENT CONTROL - DECEA



CONTINGENCY PLAN

FOR BRAZIL'S FIR

Feb 16th, 2006.

Contingency Plan for Brazil's FIR

Effective in: February 16th, 2006.

1. Introduction

1.1 The present Contingency Plan has been elaborated based on the directive guidelines approved by the ICAO Council, contained in the Air Traffic Service Planning Manual of the Air Traffic Services (Doc. 9426, Part II, Section I, Chapter 1, paragraph 1.3).

1.2 The objective of this Contingency Plan is to establish procedures to the admission of international flights in the airspace of Brazil's FIR, in the event of a partial or total interruption of the air traffic services as well as maintaining an organized and safe movement.

1.3 The procedures concerning the partial disruption, situation in which it is considered at least the Alert and Flight Information Service Supply, foresee the establishment of contingency routes among specified terminals and adjacent FIR to be used by the aircraft that intend to land in the airdrome located inside the contingent FIR. The aircraft that have only the intention to overfly the contingent FIR will be allowed to use the routes foreseen in the Air Navigation Regional Plan.

1.4 The procedures concerning the total disruption, situation in which it is considered a significant reduction on the ATS Service Supply Capacity, foresee the establishment of contingency routes among Brazil's FIR, among them and the adjacent FIR, besides flight levels and minimum longitudinal separation pre-established.

1.5 On account of their peculiar characteristics, for effect of application of this Plan, the Atlantic and Recife FIR will be considered as one FIR only.

1.6 This Contingency Plan has been elaborated by Brazil, with the assistance of the South American Regional Office and approved by the President of the ICAO Council.

1.7 The effective implementation of this Plan requires a close co-ordination and collaboration of the aeronautical authorities of the FIR involved, as well as of the users of the airspace concerned.

2. Affected FIR

2.1 The FIR directly affected by the present Contingency Plan are:
Brasília/Brazil, Recife/Brazil, Atlantic/Brazil, Amazonic/Brazil, Curitiba/Brazil, La Paz/Bolivia, Lima/Peru, Resistencia/Argentina, Bogotá/Colombia, Maiquetia/Venezuela, Georgetown/Guyana, Paramaribo/Suriname, Rochambeau/French Guyana, Asunción/Paraguay, Montevideo/Uruguay, Dakar/Senegal, Johannesburg/South Africa and Luanda/Angola.

3. General Aspects

3.1 This Contingency Plan for Brazil's FIR doesn't have the objective of establishing procedures that comprise all the contingency degradation possibilities, once they are countless. So, it aims at distinguishing global principles for the establishment of contingency measures that can be applied in case of events that are predicable or not and that, somehow, can affect the air traffic service supply in the affected FIR.

3.2 To ensure that the operation foreseen in item 1.2 of this Plan keep on developing themselves in a safe and organized manner, the following principles are established:

3.2.1 The Air Traffic Management Centre (CGNA) is the central Organ designated by the Air Space Department Control – DECEA to coordinate the actions of this Plan.

3.2.2 In case of air/ground communication failure, the ATS will support on the VHF and HF frequencies available, respectively, in each ACC or APP that has received the ATS supply attribution in a determined airspace portion, constant in the publications, or in any other designated by the central organ.

3.2.3 The Air Traffic Management Centre (CGNA) has as competence:

3.2.3.1 To activate the initial measures included in the present Contingency Plan after evaluating the situation and planning the necessary actions aiming at regulating air operations;

3.2.3.2 To evaluate, depending on the degradation complexity, the necessity to activate the Contingency Commission previously designated by the Air Space Department Control – DECEA. This Contingency Commission will coordinate the activities during the contingency period.

3.2.3.3 To coordinate with enough anticipation or as soon as possible, with the Central Units responsible for the adjacent FIR, with ICAO (SAM Regional Office), and with the Representatives of the regular air transport companies.

3.2.3.4 To take the necessary actions in order to issue the corresponding NOTAM, according to the contingency situation. If the situation is foreseeable, a NOTAM should be issued at least with a 48-hour anticipation.

4. Procedures to be taken prior to the activation of the Contingency Plan

While the Contingency Plan is inactive, the aircraft flying over the contingent FIR shall apply the procedures foreseen in Doc. 4444, Chapter 15 - ICAO, for the cases of air-ground communication failure, as well as to put into practice the TIBA procedures foreseen in Annex 11, Appendix C - ICAO, preferably in Portuguese and English languages, using the corresponding ATS frequencies and the TIBA frequency (123.45Mhz.).

5. Plan Activation

The dispositions applicable to the ATS Units involved and to the aircraft that take off and land in Brazil's FIR or even overfly them, in the event of a partial or total disruption in the air traffic service supply, are described below.

5.1 Dispositions applicable to the ATS Units involved:

- a) To transmit, according to the normal procedures foreseen, the air traffic messages to the contingent ACC, as well as an estimating message (EST) to the first FIR after the contingent FIR;
- b) To authorize the entrance of an aircraft in the contingent FIR, according to what is foreseen in paragraph 5.3 and 5.4 of this Plan;
- c) To wait for the orientations of the (CGNA) - Central Organ to employ the necessary adjustments in the corresponding contingency measures, until such time that the system is back to normality;
- d) To coordinate with the ATS units of the contingent FIR, according to the instructions of the Air Traffic Management Centre - Central Organ, through the ATS coordination circuits or others available at least 30 minutes prior to the estimating on the entrance and exit points of the contingent FIR;
- e) In the event of total interruption, instruct all the pilots in charge of the aircraft to keep the last level and speed applied while overflying the contingent FIR;
- f) In the event of total interruption, to regard attentively that the aircraft shall be leveled, according to what it is foreseen in this Plan, at least 10 minutes prior to enter the contingent FIR;
- g) To instruct the aircraft to attempt to establish communication with the adjacent ATS units at least 5 minutes before the foreseen time of entrance in the subsequent FIR;
- h) To observe that, in case of a total or partial interruption of the air traffic service supply, the entrance in the contingent FIR will be ceased until the situation is evaluated and the Contingency Plan is implemented by the Air Traffic Management Center - Central Organ;
- i) To observe that, during the activation of the Contingency Plan, flights of aircraft not approved RVSM in the RVSM airspace will not be allowed, no exceptions made.

5.2 Dispositions Applicable to the Aircraft:

5.2.1 The aircraft that overfly the contingent Brazilian FIR and those that go to or come from the Terminal Areas included in this Contingency Plan, shall accomplish the following:

- a) To observe that, during the activation of this Contingency Plan, only RVSM approved aircraft shall fly in the RVSM airspace, without exceptions;
- b) Adjust to the instrument flight rules (IFR) and a flight level will be designated according to the cruising level table which is contained in Annex 2, Appendix 3, of the ATS routes inside de contingency region;
- c) In the event of a total interruption of the air traffic service supply, the aircraft shall fly on the axle of the contingency route applied or as close as possible to it;
- d) In the event of a partial interruption, the aircraft shall keep permanent listening watch in VHF, HF frequency or other designated frequency and report any take-off or landing maneuvers the circumstances may request, at least 5 minutes in advance. The climbing/descending maneuvers shall only be realized to the right of the route axle. The message shall contain the aircraft identification, position, abandoned level, crossing level and other relevant information;
- e) To keep the navigation and anti-collision lights continuously on while overflying the contingent FIR;
- f) To select code 2000 in case no other SSR code has been previously allocated;
- g) It is compulsory to own the ACAS, and;
- h) Make the necessary coordinations with other aircraft using the corresponding ATS frequencies and the TIBA frequency (123.45 MHz).

5.3 Dispositions applicable in case of a Partial Interruption in the air traffic service supply to the aircraft that overfly Brasília FIR, Curitiba FIR, Amazonic FIR and Recife/Atlantic FIR.

In order to maintain the vertical, lateral and longitudinal minimum separation, the aircraft that shall overfly the contingent FIR must use the flight levels and routes foreseen in the subsequent items for each FIR.

For the aircraft that shall land or take off in the contingent FIR, it shall be observed what it is foreseen in the subsequent items for each FIR as well.

5.3.1 Brasília FIR

If during the contingency it is possible to count on the Flight Information Services (FIS), Alerting Services and yet on the Approach Control Service, in the TMA that take part directly in the flight progression, that serve the Airports of Brasília (SBBR), Goiânia (SBGO), Confins (SBCF), Vitória (SBVT), Galeão (SBGL), Guarulhos (SBGR) and Cuiabá (SBCY), it will be used a simplified system, consisting of ATS routes which belong to the route network structure of Brasília FIR, connecting it to Recife/Atlantic, Curitiba, Amazonic and La Paz FIR or vice versa, according to the following: (See Annex 1 for the Upper Altitude and Annex 2 for the Low Altitude).

5.3.1.1 Aircraft that go from Brasília Terminal Area, to Recife/Atlantic FIR.

Will use the following Routes:
UZ2; UW43; UW10; W2; W10;

5.3.1.2 Aircraft that go to Brasília Terminal Area, from Recife/Atlantic FIR.

Will use the following Routes:
UZ5; UZ27; UZ17; W2; W10;

5.3.1.3 Aircraft that go to Brasília Terminal Area, from Amazonic FIR.

Will use the following Routes:
UA317; UW6; UW10; G678; W10; G449.

5.3.1.4 Aircraft that go from Brasília Terminal Area, to Amazonic FIR.

Will use the following Routes:
UZ6; UW6; UW10; G678; W10; G449.

5.3.1.5 Aircraft that go to Brasília Terminal Area, from Curitiba FIR.

Will use the following Routes:
UW6; UB688/695; G449 PCL W2.

5.3.1.6 Aircraft that go from Brasília Terminal Area, to Curitiba FIR.

Will use the following Routes:
UW6, UW10 GOI UW29; G449 PCL W1 CTB.

5.3.1.7 Aircraft that go from Brasília Terminal Area, to La Paz FIR.

Will use the following Routes:
UW10 CIA UB652 SMT; W10 CIA B652 SMT

5.3.1.8 Aircraft that go to Brasília Terminal Area, from La Paz FIR.

Will use the following Routes:
UB652 CIA UW10; B652 CIA W10.

5.3.1.9 Aircraft that go to Rio de Janeiro Terminal Area, from Recife/Atlantic FIR.

Will use the following Routes:

UL330, VTR UW50, UL327 VTR UW50; UL335 VTR UW50; UL340; UL224.

5.3.1.10 Aircraft that go from Rio de Janeiro Terminal Area, to Recife/Atlantic FIR.

Will use the following Routes:

UW50 VTR UL330; UW50 VTR UL327; UW50 VTR UL335; UL340; UL224.

5.3.1.11 Aircraft that go to Rio de Janeiro Terminal Area, from Curitiba FIR.

Will use the following Routes:

UW63; UN857; G677; W45 RDE DCT CGO W53; G678 RDE DCT CGO W53.

5.3.1.12 Aircraft that go from Rio de Janeiro Terminal Area, to Curitiba FIR.

Will use the following Routes:

UW50; UA314; G677; G678

5.3.1.13 Aircraft that go to Rio de Janeiro Terminal Area, from Amazonic FIR.

Will use the following Routes:

UA317; G678 BRS W49

5.3.1.14 Aircraft that go from Rio de Janeiro Terminal Area, to Amazonic FIR.

Will use the following Routes:

UA312; UA312 BRS UZ6; UA312 BRS UL304; UW11 BHZ DCT CNF UB680; W50 BRS G678

5.3.1.15 Aircraft that go to Rio de Janeiro Terminal Area, from Recife/Atlantic FIR.

Will use the following Routes:

UW5; UZ14; G677; W8.

5.3.1.16 Aircraft that go from Rio de Janeiro Terminal Area, to Recife/Atlantic FIR.

Will use the following Routes:

UZ1; UZ10; UW11 BHZ DCT CNF UZ3; G677.

5.3.1.17 Aircraft that go to São Paulo Terminal Area, from Recife/Atlantic FIR.

Will use the following Routes:

UL330 VTR UW50; UL327 VTR UW50; UL335 VTR UW50; EKALO DCT ADA UW50; UL224 MRC UW50.

5.3.1.18 Aircraft that go from São Paulo Terminal Area, to Recife/Atlantic FIR.

Will use the following Routes:

UW63 PCX UL327; UW63 PCX UL327 VTR UL335; UW63 PCX UL327 VTR UL330; UW63 PCX UL340; UW63 PCX DCT ADA DCT CIDER UL224.

5.3.1.19 Aircraft that go to São Paulo Terminal Area, from Recife/Atlantic FIR.

Will use the following Routes:

UW58; UN741 PSN W1; W1; W2 BRS G449 PCL W1.

5.3.1.20 Aircraft that go from São Paulo Terminal Area, to Recife/Atlantic FIR.

Will use the following Routes:

UW13; UN866; UW2 BRS UW43; UW2 BRS UZ2; UW2 BRS UZ5; W45; W45 CNF W8;
W45 CNF W1.

5.3.1.21 Aircraft that go to São Paulo Terminal Area, from Amazonic FIR.

Will use the following Routes:

UW9; W10 GOI W24 URB G449 PCL W1; G678 BRS G449 PCL W1.

5.3.1.22 Aircraft that go from São Paulo Terminal Area, to Amazonic FIR.

Will use the following Routes:

UW45 BRU UW53 BAG UW9; W2 BRS G678.

5.3.1.23 Aircraft that go to Belo Horizonte Terminal Area, from Recife/Atlantic FIR.

Will use the following Routes:

UW5; UZ4; UW13; UW58; W8; W1; W45.

5.3.1.24 Aircraft that go from Belo Horizonte Terminal Area, to Recife/Atlantic FIR.

Will use the following Routes:

UW5; UZ4; UW13; UW58; W8; W1; W45.

5.3.1.25 Aircraft that go to Belo Horizonte Terminal Area, from Amazonic FIR.

Will use the following Routes:

UA317 BRS UW11; UB680; G678.

5.3.1.26 Aircraft that go from Belo Horizonte Terminal Area, to Amazonic FIR.

Will use the following Routes:

UZ13; UW12 BRS UZ6; G678.

5.3.1.27 Aircraft that go to Belo Horizonte Terminal Area, from Curitiba FIR.

Will use the following Routes:

UW47 RDE DCT BCO UW13; G678 RDE DCT BGC W45.

5.3.1.28 Aircraft that go from Belo Horizonte Terminal Area, to Curitiba FIR.

Will use the following Routes

UW518 SCB UA310; W1.

5.3.1.29 Aircraft that go to Cuiabá Terminal Area, from Amazonic FIR.

Will use the following Routes:

UW10; UW28; W47; W10

5.3.1.30 Aircraft that go from Cuiabá Terminal Area, to Amazonic FIR.
Will use the following Routes:
UW10; UW28; W47; W10.

5.3.1.31 Aircraft that go to Cuiabá Terminal Area, from Curitiba FIR.
Will use the following Routes:
UW28; W47.

5.3.1.32 Aircraft that go from Cuiabá Terminal Area, to Curitiba FIR.
Will use the following Routes:
UW28; W47.

5.3.1.33 Aircraft that go to Cuiabá Terminal Area, from Recife/Atlantic FIR.
Will use the following Routes:
UW10; W10.

5.3.1.34 Aircraft that go from Cuiabá Terminal Area, to Recife/Atlantic FIR.
Will use the following Routes:
UW10; W10.

5.3.2 Curitiba FIR

If during the contingency it is possible to count on the Flight Information Services (FIS), Alert Services and, yet, on the Approach Control Service, in the TMA that take part directly in the flight progression, that serve the Airports of Curitiba (SBCT), Porto Alegre (SBPA), Florianópolis (SBFL), Campo Grande (SBCG) and Guarulhos (SBGR), it will be used a simplified system, consisting of ATS routes which belong to the route network structure of Curitiba FIR, connecting it to the Recife/Atlantic, Brasília, Asunción, La Paz, Montevideo and Resistencia FIR, or vice versa, according to the following: (See Annex 3 for the Upper Altitude and Annex 4 for the Low Altitude)

5.3.2.1 Aircraft that go to Curitiba Terminal Area, from Asunción FIR.
Will use the following Routes:
GAXAS UM548, FOZ A431.

5.3.2.2 Aircraft that go from Curitiba Terminal Area, to Asunción FIR.
Will use the following Routes:
UW8 FOZ; A431 FOZ.

5.3.2.3 Aircraft that go to Porto Alegre Terminal Area, from Asunción FIR.
Will use the following Routes:
GEBUN UR563; GEBUN R563.

5.3.2.4 Aircraft that go from Porto Alegre Terminal Area, to Asunción FIR.
Will use the following Routes:
UR563 GEBUN; R563 GEBUN.

5.3.2.5 Aircraft that go to Florianópolis Terminal Area, from Asunción FIR
Will use the following Routes:
GAXAS UM548 CTB UW19; FOZ A431 CTB.

5.3.2.6 Aircraft that go from Florianópolis Terminal Area, to Asunción FIR
Will use the following Routes:
UW19 CTB UW8 FOZ; W48 CTB A431 FOZ.

5.3.2.7 Aircraft that go to Campo Grande Terminal Area, from Asunción FIR.
Will use the following Routes:
AKSUL UM544; TEDAS UB554; PTP A430.

5.3.2.8 Aircraft that go from Campo Grande Terminal Area, to Asunción FIR.
Will use the following Routes:
UM544 AKSUL; UB554 TEDAS; A430 PTP.

5.3.2.9 Aircraft that go to São Paulo Terminal Area, from Asunción FIR.
Will use the following Routes:
GAXAS UM548 CTB UW61; FOZ A431 CTB G678.

5.3.2.10 Aircraft that go from São Paulo Terminal Area, to Asunción FIR
Will use the following Routes:
UL301 BOLIR; G449 CTB A431 FOZ; A428 LON A428 GEMAS.

5.3.2.11 Aircraft that go to Curitiba Terminal Area, from Resistencia FIR.
Will use the following Routes:
FOZ UW8; FOZ A431.

5.3.2.12 Aircraft that go from Curitiba Terminal Area, to Resistencia FIR.
Will use the following Routes:
UW8 ILBEK UL310 GEBUN; A431 FOZ.

5.3.2.13 Aircraft that go to São Paulo Terminal Area, from Resistencia FIR.
Will use the following Routes:
LODUR UM400 PNG UW61; FOZ A431 CTB G678.

5.3.2.14 Aircraft that go from São Paulo Terminal Area, to Resistencia FIR.
Will use the following Routes:
UL310 GEBUN; G449 CTB A431 FOZ; A428 LON W13 FOZ.

5.3.2.15 Aircraft that go to Curitiba Terminal Area, from Montevideo FIR.
Will use the following Routes:
AKPOD UM540 POR UW6; AKNEN UM671 CXS UW6; UGURA A309 POR G449.

5.3.2.16 Aircraft that go from Curitiba Terminal Area, to Montevideo FIR.

Will use the following Routes:

UA310 MLO; UA310 ASDEK UM788 BGE UA314 ISALA; G449 POR A309 PTS A305 UGELO.

5.3.2.17 Aircraft that go to Porto Alegre Terminal Area, from Montevideo FIR.

Will use the following Routes:

AKPOD UM540; OGRUN UA308; UGURA A309.

5.3.2.18 Aircraft that go to Florianópolis Terminal Area, from Montevideo FIR.

Will use the following Routes:

AKPOD UM540 POR UA314; OGRUN UA308 POR UA314; UGURA A309 POR G677.

5.3.2.19 Aircraft that go from Florianópolis Terminal Area, to Montevideo FIR.

Will use the following Routes:

UA314 POR UA308 OGRUN; UA314 ISALA; G677 POR A309 PTS A305 UGELO.

5.3.2.20 Aircraft that go to São Paulo Terminal Area, from Montevideo FIR.

Will use the following Routes:

AKNEN UM671; UGURA A309 POR G677 FNP W45.

5.3.2.21 Aircraft that go from São Paulo Terminal Area, to Montevideo FIR.

Will use the following Routes:

UM788 BGE UA314 ISALA; UM792 AKNEN; G449 POR A309 PTS A305 UGELO; G449 POR A314 ISALA.

5.3.2.22 Aircraft that go to Campo Grande Terminal Area, from La Paz FIR.

Will use the following Routes:

CUB UW62; CUB A304.

5.3.2.23 Aircraft that from Campo Grande Terminal Area, to La Paz FIR.

Will use the following Routes:

UW62 CUB; A304 CUB.

5.3.2.24 Aircraft that go to São Paulo Terminal Area, from La Paz FIR.

Will use the following Routes:

CUB UW62 CGR UW52; CUB A304.

5.3.2.25 Aircraft that go from São Paulo Terminal Area, to La Paz FIR.

Will use the following Routes:

UW50 CGR UW62 CUB; W51 BRU A304 CUB.

5.3.3 Amazonic FIR

If during the contingency it is possible to count on the Flight Information Services (FIS), Alert Services and, yet, on the Approach Control Service, in the TMA that take part directly in the flight progression, that serve the Airports of Eduardo Gomes(SBEG), Porto Velho (SBPV), Boa Vista (SBBV), Rio Branco (SBRB), Belém (SBBE), Macapá (SBMQ) and Santarém (SBSN), it will be used a simplified system, consisting of ATS routes which belong to the route network structure of Amazonic FIR, connecting it to the Bogotá, Georgetown, La Paz, Lima, Maiquetia, Paramaribo and Rochambeau FIR, or vice versa, according to the following: (See Annex 5 for the Upper Altitude and Annex 6 for the Low Altitude)

5.3.3.1 Aircraft that go to Manaus Terminal Area, from Maiquetia FIR.
Will use the following Routes:
PAKON UA300; LDP G678.

5.3.3.2 Aircraft that go from Manaus Terminal Area, to Maiquetia FIR.
Will use the following Routes:
UA300 PAKON; G678 LDP.

5.3.3.3 Aircraft that go to Manaus Terminal Area, from Georgetown FIR.
Will use the following Routes:
GEMOL UB681 BVI UA300; GEMOL B681 BVI G678.

5.3.3.4 Aircraft that go from Manaus Terminal Area, to Georgetown FIR.
Will use the following Routes:
UA300 BVI UB681 GEMOL; G678 BVI B681 GEMOL.

5.3.3.5 Aircraft that go to Manaus Terminal Area, from Bogotá FIR.
Will use the following Routes:
BRACO UA323; YAU W12.

5.3.3.6 Aircraft that go from Manaus Terminal Area, to Bogotá FIR.
Will use the following Routes:
UA323 BRACO; W12 YAU.

5.3.3.7 Aircraft that go to Manaus Terminal Area, from Lima FIR.
Will use the following Routes:
SELVA UL306.

5.3.3.8 Aircraft that go from Manaus Terminal Area, to Lima FIR.
Will use the following Routes:
UL306 SELVA.

5.3.3.9 Aircraft that go to Manaus Terminal Area, from La Paz FIR.
Will use the following Routes:
ILRES UA316; GRAFO UL309 RBC UW17; GJM W3.

5.3.3.10 Aircraft that go from Manaus Terminal Area, to La Paz FIR
Will use the following Routes:
UA316 ILRES; UW17 RBC UL309 GRAFO; W3 GJM.

5.3.3.11 Aircraft that go to Boa Vista Terminal Area, from Maiquetia FIR.
Will use the following Routes:
PAKON UA300; LDP G678.

5.3.3.12 Aircraft that go from Boa Vista Terminal Area, to Maiquetia FIR.
Will use the following Routes
UA300 PAKON; G678 LDP.

5.3.3.13 Aircraft that go to Boa Vista Terminal Area, from Georgetown FIR.
Will use the following Routes:
GEMOL UB681; GEMOL B681.

5.3.3.14 Aircraft that go from Boa Vista Terminal Area, to Georgetown FIR.
Will use the following Routes:
UB681 GEMOL; B681 GEMOL.

5.3.3.15 Aircraft that go to Santarém Terminal Area, from Paramaribo FIR.
Will use the following Routes:
ACARI UA312; TIR W23.

5.3.3.16 Aircraft that go from Santarém Terminal Area, to Paramaribo FIR.
Will use the following Routes:
UA312 ACARI; W23 TIR.

5.3.3.17 Aircraft that go to Belém Terminal Area, from Rochambeau FIR.
Will use the following Routes:
OIA UA555; OTONI UG449; OIA A555.

5.3.3.18 Aircraft that go from Belém Terminal Area, to Rochambeau FIR.
Will use the following Routes:
UA555 OIA; UG449 OTONI; A555 OIA.

5.3.3.19 Aircraft that go to Porto Velho Terminal Area, from La Paz FIR.
Will use the following Routes:
GRAFO UL309 RBC UW10; GJM W3.

5.3.3.20 Aircraft that go from Porto Velho Terminal Area, to La Paz FIR.
Will use the following Routes:
UW10 RBC UL309 GRAFO; W3 GJM.

5.3.3.21 Aircraft that go to Rio Branco Terminal Area, from La Paz FIR.
Will use the following Routes:
GRAFO UL309; VILUX A301.

5.3.3.22 Aircraft that go from Rio Branco Terminal Area, to La Paz FIR.

Will use the following Routes:

UL309 GRAFO; A301 VILUX.

5.3.3.23 Aircraft that go to Rio Branco Terminal Area, from Lima FIR.

Will use the following Route:

LIMPO UA321.

5.3.3.24 Aircraft that go from Rio Branco Terminal Area, to Lima FIR.

Will use the following Route:

UA321 LIMPO.

5.3.4 Recife/Atlantic FIR

If during the contingency it is possible to count on the Flight Information Services (FIS), Alert Services and, yet, on the Approach Control Service, in the TMA take part directly in the flight progression, that serve the Airports of Recife (SBRF), Fortaleza (SBFZ), Salvador (SBSV), Natal (SBNT) and Porto Seguro (SBPS), it will be used a simplified system, consisting of ATS routes which belong to the route network structure of Atlantic/Recife FIR, connecting it to the Brasília, Amazonic, Dakar Oceanic, Luanda, or vice versa, according to the following: (See Annex 7 for the Upper Altitude and Annex 8 for the Low Altitude)

5.3.4.1 Aircraft that go to Recife Terminal Area, from Dakar Oceanic FIR.

Will use the following Routes:

ERETU UN857 NOR UB623; RAKUD B623.

5.3.4.2 Aircraft that go from Recife Terminal Area, to Dakar Oceanic FIR.

Will use the following Routes

UR551 BUGAT UL206 KODOS; B623 RAKUD.

5.3.4.3 Aircraft that go to Natal Terminal Area, from Dakar Oceanic FIR.

Will use the following Routes:

TASIL UN873; RAKUD B623 NOR W40.

5.3.4.4 Aircraft that go from Natal Terminal Area, to Dakar Oceanic FIR.

Will use the following Routes:

UN873 TASIL; W40 NOR B623 RAKUD.

5.3.4.5 Aircraft that go to Fortaleza Terminal Area, from Dakar Oceanic FIR.

Will use the following Route:

NANIK UN741.

5.3.4.6 Aircraft that go from Fortaleza Terminal Area, to Dakar Oceanic FIR.
Will use the following Route:
UN741 NANIK.

5.3.4.7 Aircraft that go to Salvador Terminal Area, from Dakar Oceanic FIR.
Will use the following Routes:
TASIL UN873 NTL UZ10.

5.3.4.8 Aircraft that go from Salvador Terminal Area, to Dakar Oceanic FIR.
Will use the following Routes:
UW58 REC UR551 BUGAT UL206 KODOS.

5.3.4.9 Aircraft that go to Recife Terminal Area, from Brasília FIR.
Will use the following Routes:
UW10; UZ16 NDB SGR UN857 RUBEN DCT REC; W10; W1 YLH G677; G677.

5.3.4.10 Aircraft that go from Recife Terminal Area, to Brasília FIR
Will use the following Routes:
UW58 SVD UZ17; UW58; W10; G677; G677 YLH W1.

5.3.4.11 Aircraft that go to Fortaleza Terminal Area, from Brasília FIR.
Will use the following Routes:
UW43; W2 TRS W44; W1; G677 YLH W1.

5.3.4.12 Aircraft that go from Fortaleza Terminal Area, to Brasília FIR.
Will use the following Routes:
UW13 PTL UZ27; UZ19 SVD UW58; W44 TRS W2; W1; W1YLH G677.

5.3.4.13 Aircraft that go to Salvador Terminal Area, from Brasília FIR.
Will use the following Routes:
UW10 LAP UW42; UZ16 HAVEM UZ10; G677; W1; W10 LAP W42.

5.3.4.14 Aircraft that go from Salvador Terminal Area, to Brasília FIR.
Will use the following Routes:
UZ17; UW58; G677; W1; W42 LAP W10.

5.6.15 Aircraft that go to Porto Seguro Terminal Area, from Brasília FIR.
Will use the following Routes:
UW50; G677; W17 CVL G677.

5.3.4.16 Aircraft that go from Porto Seguro Terminal Area, to Brasília FIR.
Will use the following Routes:
UZ15; G677 CVL W17, W45.

5.3.4.17 Aircraft that go to Teresina Terminal Area, from Brasília FIR.

Will use the following Routes:

UZ5; W2

5.3.4.18 Aircraft that go from Teresina Terminal Area, to Brasília FIR.

Will use the following Routes:

UW44 BRR UW43; W2.

5.3.4.19 Aircraft that go to Fortaleza Terminal Area, from Amazonic FIR.

Will use the following Routes:

UW33; G677.

5.3.4.20 Aircraft that go from Fortaleza Terminal Area, to Amazonic FIR.

Will use the following Routes:

UW44 TRS UZ7; G677.

5.3.4.21 Aircraft that go to Teresina Terminal Area, from Amazonic FIR.

Will use the following Routes:

UZ20; W20.

5.3.4.22 Aircraft that go from Teresina Terminal Area, to Amazonic FIR.

Will use the following Routes:

UZ7; W20.

5.3.4.23 Aircraft that go to Recife Terminal Area, from Amazonic FIR.

Will use the following Routes:

UW33; G677.

5.3.4.24 Aircraft that go from Recife Terminal Area, to Amazonic FIR.

Will use the following Routes:

UW33; G677.

5.3.4.25 Aircraft that go to Salvador Terminal Area, from Amazonic FIR.

Will use the following Routes:

UW33 REC UW58; G677 FLZ W1.

5.3.4.26 Aircraft that go from Salvador Terminal Area, to Amazonic FIR.

Will use the following Routes:

UZ20 TRS UZ7; W1 FLZ G677.

5.3.4.27 Aircraft that go to Natal Terminal Area, from Amazonic FIR.

Will use the following Routes:

UW33 MSS UW23; G677.

5.3.4.28 Aircraft that go from Natal Terminal Area, to Amazonic FIR.

Will use the following Routes:

UW23 MSS UW33; G677.

5.4 Dispositions applicable in the event of a Total Interruption in the air traffic service supply for aircraft that overfly Brasília, Curitiba, Amazonic and Recife/Atlantic FIR.

In order to maintain the vertical, lateral and longitudinal minimum separation, the aircraft that are going to overfly the contingent FIR must use the flight levels and routes foreseen in the subsequent items for each FIR.

For the admission the contingent FIR, the following procedures shall ought to be obligatory observed:

- a) The longitudinal minimum separation per time will be 15 minutes, for the aircraft in the same flight level and route foreseen, at the entry points of the contingent FIR, when the subsequent aircraft owns equal or lower speed than the preceding aircraft;
- b) The aircraft with superior speed to the preceding aircraft, shall only be able to enter the contingent FIR after prior coordination with the ATS Units designated by the Air Navigation Management Center - CGNA.

The cases - where the aircraft in flight, before entering the contingent FIR, don't have conditions to realize an overflying, as mentioned above, must be coordinated with the ATS Units designated by the Air Navigation Management Center - CGNA.

5.4.1 Brasília FIR

Dispositions applicable in the event of a Total Interruption in the air traffic service supply in Brasília FIR. (See Annex 9):

5.4.1.1 Aircraft going **from Recife/Atlantic FIR to Curitiba FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **CARDO UN741 OROKA, FL360.**
- b) **KORAM UZ18 FRM UW10 GOI UW29 ALBEX, FL360.**
- c) **KORAM UZ18 FRM UW10 BRS UB688 PONEI, FL360.**
- d) **BAIAN UW10 GOI UW29 ALBEX, FL340.**
- e) **BAIAN UW10 BRS UB688 PONEI, FL340.**
- f) **FORTI UW13 DEPOT UW58 PREGO, FL360.**
- g) **SAGAZ UW58 PREGO, FL320.**
- h) **BUXER UN873 FERMA UZ1 PCX DCT MRC UW50 RDE, FL380.**
- i) **BUXER UN873 FERMA UZ1 PCX DCT MRC UA314 ETANO, FL380.**
- j) **APINO UZ3 CNF UW58 PREGO, FL300.**
- k) **POLVO UL330 VTR UW50 MRC UA314 ETANO, FL470.**

- l) **GARUP UL335 VTR UW50 MRC UA314 ETANO, FL430.**
- m) **EKALO DCT MRC UA314 ETANO, FL260.**
- n) **CIDER UL224 MRC UW50 RDE, FL280.**
- o) **CIDER UL224 MRC UA314 ETANO, FL280.**
- p) **POLVO UL330 VTR UW50 RDE, FL470.**

5.4.1.2 Aircraft going **from Curitiba FIR to Recife/Atlantic FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **PONEI UB688 BRS UW10 FRM UZ18 KORAN, FL290 or FL310.**
- b) **PONEI UB688 BRS UW10 FRM UZ27 PALMO, FL290 or FL310.**
- c) **PONEI UB688 BRS UW10 BAIAN, FL290.**
- d) **ALBEX UW29 GOI UW10 FRM UZ18 KORAN, FL250.**
- e) **ALBEX UW29 GOI UW10 FRM UZ27 PALMO, FL250.**
- f) **ALBEX UW29 GOI UW10 BAIAN, FL250.**
- g) **AKNUB UN857 DAGEL, FL350.**
- h) **AKNUB UN857 MRC DCT PCX UZ1 MILTA, FL350.**
- i) **RDE UW25 BCO UW13 FORTI, FL370.**
- j) **RDE UW25 BCO UW13 BHZ DCT CNF UZ3 APINO, FL370.**
- k) **RDE UW25 BCO UW13 QUARU UN866 RUBIC, FL370.**
- l) **RDE UW25 BCO UW62 NOA DCT PCX UL327 VTR UL206 CALVO, FL370.**
- m) **RDE UW25 BCO UW62 NOA DCT MRC UN857 DAGEL, FL370.**
- n) **RDE UW25 BCO UW62 NOA DCT PCX UL340 EKALO, FL370.**
- o) **RDE UW25 BCO UW62 NOA DCT MRC UL224 CIDER, FL370.**
- p) **PORTE UW62 NOA DCT PCX UL340 EKALO, FL270.**
- q) **PORTE UW62 NOA DCT MRC UL224 CIDER, FL270.**
- r) **RDE UW25 BCO UW62 NOA DCT PCX UL327 VTR UL335 GARUP, FL370.**
- s) **RDE UW25 BCO UW62 NOA DCT PCX UL327 VTR UL330 POLVO, FL370.**
- t) **PORTE UW62 NOA DCT PCX UL327 VTR UL330 POLVO, FL270.**

5.4.1.3 Aircraft going **from Curitiba FIR to Amazonic FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) TOUPA **UW53 BAG UL795 RONIL, FL320.**
- b) TOMBO **UW45 CIA UB554 UGINA, FL320.**
- c) EGIMO **UL655 ISENA, FL280.**
- d) TOSAR **UM799 ALVAR, FL350.**

5.4.1.4 Aircraft going **from Amazonic FIR to Curitiba FIR**, will be guided through the ATS route network of the FIR, according to the following:

- a) UGINA **UB554 CIA UW45 TOMBO, FL330.**
- b) ALVAR **UM799 TOSAR, FL360.**
- c) ISENA **UL655 EGIMO, FL250 or FL410.**

5.4.1.5 Aircraft going **La Paz FIR to Amazonic FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) SMT **UB652 CIA UW10 LISAN UM799 ALVAR, FL390.**

5.4.1.6 Aircraft going **from Amazonic FIR to La Paz FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) ALVAR **UM799 LISAN UW10 CIA UB652 SMT, FL360.**

5.4.1.7 Aircraft going **from La Paz FIR to Recife/Atlantic FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) SMT **UB652 CIA UW10 FRM UZ18 KORAN, FL390.**
- b) SMT **UB652 CIA UW10 FRM UZ27 PALMO, FL390.**

5.4.1.8 Aircraft going **from Recife/Atlantic FIR to La Paz FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) BAIAN **UW10 CIA UB652 SMT, FL 340.**

5.4.2 Curitiba FIR

Dispositions applicable in the event of a Total Interruption in the air traffic service supply in Curitiba FIR. (See Annex 10):

5.4.2.1 Aircraft going **from Brasília FIR to Asunción FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **ALBEX UW29 CGR UM544 AKSUL, FL340 or FL360.**
- b) **PONEI UB688 FOZ, FL340 or FL360.**
- c) **TOSAR UM799 REMEK, FL360.**

5.4.2.2 Aircraft going **from Asunción FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **FOZ UB688 PONEI, FL290.**
- b) **AKSUL UM544 CGR UW29 ALBEX, FL250.**
- c) **REMEK UM799 TOSAR, FL350.**

5.4.2.3 Aircraft going **from Brasília FIR to Resistencia FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **RDE UW50 SCB UA310 BRETA UL310 GEBUN, FL260 or FL280.**
- b) **PREGO UW58 SCB UA310 BRETA UL310 GEBUN, FL320.**

5.4.2.4 Aircraft going **from Resistencia FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **FOZ UB688 PONEI, FL310.**

5.4.2.5 Aircraft going **from Brasília FIR to Montevideo FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **OROKA UN741 ISALA, FL360.**
- b) **PREGO UW58 SCB UA310 ASDEK UM792 AKNEN, FL300 or FL320 or FL360.**
- c) **RDE UW50 SCB UA310 ASDEK UM792 AKNEN, FL260 or FL280 or FL380 or FL470.**
- d) **ETANO UA314 POR UA309 PTS UA305 UGELO, FL260 or FL280 or FL360 or FL380 or FL430 or FL470.**

5.4.2.6 Aircraft going **from Montevideo FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **AKNEM UM671 OSAMU UW25 RDE, FL370.**
- b) **OGRUN UN857 AKNUB, FL350.**

5.4.2.7 Aircraft going **from Brasília FIR to La Paz FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **RDE UW50 PRR UM415 SIDAK, FL260.**

5.4.2.8 Aircraft going **from La Paz FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **SIDAK UZ22 CGR UW62 PORTE, FL270.**

5.4.3 Amazonic FIR

Dispositions applicable in the event of a Total Interruption in the air traffic service supply in the Amazonic FIR. (See Annex 11):

5.4.3.1 Aircraft going **from Brasília FIR to Maiquetia FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **RONIL UL795 VUMPI FL320.**
- b) **TESAL UL304 ISANI FL300.**
- c) **RONIL UL795 ATF UA315 VAGAN, FL320.**

5.4.3.2 Aircraft going **from Maiquetia FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **VAGAN UA315 ATF UA317 XINGU, FL290.**
- b) **VUMPI UL795 RONIL, FL330.**
- c) **ISANI UL304 TESAL FL350.**

5.4.3.3 Aircraft going **from Brasília FIR to Bogotá FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **XINGU UA317 MITU, FL280.**
- b) **ISENA UL655 ASAPA, FL 280.**

5.4.3.4 Aircraft going **from Bogotá FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **MITU UA317 XINGU, FL250 or FL410.**
- b) **ASAPA UL655 ISENA, FL250 or FL410.**

5.4.3.5 Aircraft going **from Maiquetia FIR to La Paz FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **UGAGA UL793 UDIDI, FL410.**
- b) **PAKON UA300, FL390 until MAN. At MAN blockage descend to FL380, UM402 UBKAB.**

5.4.3.6 Aircraft going **from La Paz FIR to Maiquetia FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) UDIDI **UL793** UGAGA, **FL380**.
- b) UBKAB **UM402**, **FL370** until MAN. At MAN blockage to descend to **FL360**, **UA300** PAKON.

5.4.3.7 Aircraft going **from Brasília FIR to Paramaribo FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) MEVOS **UA312** ACARI, **FL 280** or **FL380**.

5.4.3.8 Aircraft going **from Paramaribo FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) ACARI **UA312** STM UW12 MEVOS, **FL290** or **FL370**.

5.4.3.9 Aircraft going **from Brasília FIR to Rochambeau FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) NOLED **UB680** ATITA, **FL320**.

5.4.3.10 Aircraft going **from Rochambeau FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) ATITA **UB680** NOLED, **FL330**.

5.4.3.11 Aircraft going **from Lima FIR to La Paz FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) LIMPO **UA321** RBC **UB554** FLOTE, **FL330**.

5.4.3.12 Aircraft going **from La Paz FIR to Lima FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) FLOTE **UB554** RBC **UA321** LIMPO, **FL320**.

5.4.3.13 Aircraft going **from La Paz FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) FLOTE **UB554** SILIC **UB554** UGINA, **FL330**.

5.4.3.14 Aircraft going **from Brasília FIR to La Paz FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) UGINA **UB554** SILIC **UB554** FLOTE, **FL320**.

5.4.3.15 Aircraft going **from Lima FIR to Paramaribo FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **SELVA UL306 SIROS, FL270.**

5.4.3.16 Aircraft going **from Paramaribo FIR to Lima FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **SIROS UL306 SELVA, FL260.**

5.4.3.17 Aircraft going **from Rochambeau FIR to Recife/Atlantic FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **OTONI UG449, FL290** until BEL. At BEL blockage ascend to **FL300, UZ3 LOVIS.**

5.4.3.18 Aircraft going **from Recife/Atlantic FIR to Rochambeau FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **LOVIS UZ3, FL370** until BEL. At BEL blockage ascend to **FL380, UG449 OTONI.**

5.4.3.19 Aircraft going **from La Paz FIR to Bogotá FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **VILUX UA301 TBT, FL340.**

5.4.3.20 Aircraft going **from Bogotá FIR to La Paz FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **TBT UA301 VILUX, FL350.**

5.4.4 Recife/Atlantic FIR

Dispositions applicable in the event of a Total Interruption in the air traffic service supply in Recife/Atlantic FIR. (See Annex 12):

5.4.4.1 Aircraft going **from Brasília FIR to Dakar Oceanic FIR**, will be guided through the ATS route network of the FIR, according to the following:

- a) **KORAN UZ18 FLZ UN741 NANIK, FL250 or FL290 or FL310 or FL390.**
- b) **PALMO UZ27 MSS UN866 DEKON, FL250 or FL290 or FL310 or FL390.**
- c) **BAIAN UW10 REC UR551 BUGAT UL206 KODOS, FL250 or FL290.**
- d) **FORTI UW13 FLZ UN741 NANIK, FL370.**
- e) **RUBIC UN866 DEKON, FL370.**
- f) **DAGEL UN857 ERETU, FL350 or FL370.**
- g) **CALVO UL206 KODOS, FL370.**

- h) **MILTA UZ1 FLZ UN741 NANIK, FL350.**

5.4.4.2 Aircraft going **from Dakar Oceanic FIR to Brasília FIR**, will be guided through the ATS route network of the FIR, according to the following:

- a) **NANIK UN741 FLZ UZ18 KORAN, FL360.**
- b) **NANIK UN741 CARDO, FL360.**
- c) **TASIL UN873 BUXER, FL380.**
- d) **ERETU UN857 NOR UB623 REC UW58 SAGAZ, FL320.**
- e) **ERETU UN857 NOR UB623 REC UW10 BAIAN, FL340.**
- f) **NANIK UN741 FLZ UW13 FORTI, FL360.**
- g) **ASDOK UL330 POLVO, FL470.**
- h) **AKRAN UL335 GARUP, FL430.**

5.4.4.3 Aircraft going **from Brasília FIR to Amazonic FIR**, will be guided through the ATS route network of the FIR, according to the following:

- a) **APINO UZ3 LOVIS, FL370.**

5.4.4.4 Aircraft going **from Amazonic FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **LOVIS UZ3 APINO, FL300.**

5.4.4.5 Aircraft going **from Brasília FIR to Dakar Oceanic FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **POLVO UL330 ASDOK, FL270 or FL370.**
- b) **GARUP UL335 AKRAN, FL270 or FL370.**

5.4.4.6 Aircraft going **from Brasília FIR to Luanda FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **EKALO UL340 ILGER FL270 or FL370.**

5.4.4.7 Aircraft going **from Luanda FIR to Brasília FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **ILGER UL340 EKALO, FL260.**

5.4.4.8 Aircraft going **from Brasília FIR to Johannesburg FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **CIDER UL224 ITGIV, FL270 or FL370.**

5.4.4.9 Aircraft going **from Johannesburg FIR to Brasília FIR** will be guided through the ATS

route network of the FIR, according to the following:

- a) **ITGIV UL224 CIDER, FL280.**

5.4.4.10 Aircraft going **from Rochembeau FIR to Luanda FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **EGIMI UL375 ETAXO, FL330.**

5.4.4.11 Aircraft going **from Luanda FIR to Rochembeau FIR** will be guided through the ATS route network of the FIR, according to the following:

- a) **ETAXO UL375 EGIMI, FL280.**

6. List of Points of Contact (POC) of all concerned States, IATA and ICAO Office.

STATE/INTERNATIONAL ORGANISATION	POINT OF CONTACT	TELEPHONE	FAX	EMAIL
BRASIL - AIR NAVIGATION MANAGEMENT CENTER/CGNA - CHIEF	RICARDO NOGUEIRA	55(12)3941-5001 CEL (12)97280758	55(12)3941-7055	nogueira@cgna.gov.br
DAKAR ACC	TBD			
LUANDA ACC	TBD			
JOHANNESBURG ACC	TBD			
ICAO SAM OFFICE	JORGE FERNANDEZ ALBERTO ORERO	+511 575 1646 +511 575 1476	+511 575 0975	Mail@lima.icao.int jf@lima.icao.int ao@lima.icao.int
IATA LATAM SAM	EDUARDO CHACIN			chacine@iata.org

APPENDIX B

APPENDIX A TO LETTER OF AGREEMENT

CONTINGENCY MEASURES TO BE APPLIED IN CASES OF DISRUPTIONS OF AIR TRAFFIC SERVICES IN THE ATLANTICO AND JOHANESBURG OCEANIC FIR.

1 General information

The objective of this Contingency Plan is to establish procedures for the admission of international flights in the airspace of ATLANTICO and JOHANESBURG OCEANIC FIR, in the event of a partial or total interruption of the air traffic services as well as maintaining an organized and safe movement.

To ensure that in a safe and organized manner, the following principles are established:

- 1.1 The Central Airspace Management Unit (CAMU) is the Central Organ designated by South Africa to coordinate the actions of this Plan.
- 1.2 The Air Traffic Management Centre (CGNA) is the Central Organ designated by Brasil to coordinate the actions of this Plan
- 1.3 In case of air/ground communication failure, the ATS will support on the VHF and HF frequencies available, respectively, in each ACC or APP that has received the ATS supply attribution in a determined airspace portion, constant in the publications, or in any other designated by the Central Organ/s.
- 1.3 The Central Organ/s has as competence to activate the initial measures included in the present Contingency Plan after evaluating the situation and planning the necessary actions aiming at regulating air operations.
- 1.4 The Central Organ/s to take the necessary actions in order to issue the corresponding NOTAM, according to the contingency situation. If the situation is foreseeable, a NOTAM should be issued at least within 48-hour of anticipation.
- 1.5 The Central Organ/s has competence to update this Contingency Plan and inform the Units involved.

2 Dispositions applicable to the ATS Units involved:

- 2.1 To transmit, according to the normal procedures foreseen, the air traffic messages to the contingent ACC, as well as an estimating message (EST) to the first FIR after the contingent FIR.
- 2.2 To authorize the entrance of an aircraft in the contingent FIR, according to what is foreseen in this Plan.
- 2.2 To wait for the orientations of the Central Organ to employ the necessary adjustments in the corresponding contingency measures, until such time that the system is back to normality.

- 2.3 To coordinate with the ATS units of the contingent FIR, according to the instructions of the Central Organ, through the ATS coordination circuits or others available at least 30 minutes prior to the estimating on the entrance and exit points of the contingent FIR;
- 2.4 In the event of total interruption, instruct all the pilots in charge of the aircraft to keep the last level and speed applied while over-flying the contingent FIR.
- 2.5 In the event of total interruption, to regard attentively that the aircraft shall be leveled, according to what it is foreseen in this Plan, at least 10 minutes prior to enter the contingent FIR.
- 2.6 To instruct the aircraft to attempt to establish communication with the adjacent ATS units at least 5 minutes before the foreseen time of entrance in the subsequent FIR.
- 2.7 To observe that, in case of a total or partial interruption of the air traffic service supply, the entrance in the contingent FIR will be ceased until the situation is evaluated and the Contingency Plan is implemented by the Central Organ.
- 2.8 To observe that, during the activation of the Contingency Plan, flights of aircraft not approved RVSM in the RVSM airspace will not be allowed, no exceptions made.

3 Dispositions applicable in the event of a Total Interruption in the air traffic service supply for aircraft that over-flies ATLANTICO AND JOHANNESBURG OCEANIC FIR.

For the admission the contingent FIR, the following procedures shall ought to be obligatory observed:

- 3.1 The longitudinal minimum separation will be 15 minutes, for the aircraft in the same flight level and route foreseen, at the entry points of the contingent FIR, when the subsequent aircraft owns equal or lower speed than the preceding aircraft.
- 3.2 The aircraft with superior speed to the preceding aircraft shall only be able to enter the contingent FIR after prior coordination with the ATS Units designated by the Central Organ/s.
- 3.3 The cases - where the aircraft in flight, before entering the contingent FIR, don't have conditions to realize an over-flying, as mentioned above, must be coordinated with the ATS Units designated by the Central Organ/s.
- 3.4 In order to maintain the vertical, lateral and longitudinal minimum separation, the aircraft that are going to over-fly the contingent FIR must use the flight levels and routes connecting it to Atlantico FIR and Johannesburg Oceanic FIR or vice versa, according to the following:

<u>Traffic routing between South Africa (Oceanic) and Brasília (Oceanic)</u> <u>Contingency Routes</u>	
<u>CURRENT ROUTE</u> <u>JOHANNESBURG FIR TO BRASÍLIA FIR</u>	<u>CONTINGENCY ROUTE</u> <u>JOHANNESBURG FIR TO BRASÍLIA FIR</u>
ITMEK ETULA ITGIV UL224 CIDER	Remains ITMEK ETULA ITGIV UL224 CIDER at FL280
<u>CURRENT ROUTE</u> <u>BRASÍLIA FIR TO JOHANNESBURG FIR</u>	<u>CONTINGENCY ROUTE</u> <u>BRASÍLIA FIR TO JOHANNESBURG FIR</u>
CIDER UL224 ITGIV GERAM ETULA ITMEK	Remains CIDER UL224 ITGIV GERAM ETULA ITMEK at FL270 or FL370

<u>Traffic routing between South Africa (Oceanic) /Luanda FIR and Rochambeau FIR</u> <u>Contingency Routes</u>	
<u>CURRENT ROUTE</u> <u>JOHANNESBURG/LUANDA FIR TO</u> <u>ROCHAMBEAU FIR</u>	<u>CONTINGENCY ROUTE</u> <u>JOHANNESBURG/LUANDA FIR TO</u> <u>ROCHAMBEAU FIR</u>
ALENI UL375 BOLIM UL375 ETAXO UL375 EGIMI at FL280	Remains ALENI UL375 BOLIM UL375 ETAXO UL375 EGIMI at FL280
<u>CURRENT ROUTE</u> <u>ROCHAMBEAU FIR TO</u> <u>LUANDA/JOHANNESBURG FIR</u>	<u>CONTINGENCY ROUTE</u> <u>ROCHAMBEAU FIR TO</u> <u>LUANDA/JOHANNESBURG FIR</u>
EGIMI UL375 ETAXO BUTOG USENA BOLIM OSEPA ALENI	EGIMI UL375 ETAXO BUTOG USENA BOLIM OSEPA UVGOD ABV UPV UQ11 UQ19 AVAGO at FL330

5 List of Points of Contact (POC) of all concerned States.

Contact information for States during contingency situations

<u>STATE</u>	<u>POINT OF CONTACT</u>	<u>TEL</u>	<u>FAX</u>	<u>E-MAIL</u>
Brasil/Centro de Gestion de la Navegacion Aérea-Jefe	Ricardo Nogueira	+55 (12) 3941-5001 Cell (12) 97280758	+55 (12) 3941-7055	nogueira@cgna.gov.br
South África/ Central Air Space Management Unit (CAMU)	Stuart Ratcliff	+27 (11) 928 6433 Cell (+27) 82 823 8501	+27 (11) 395 1045	stuartr@atns.co.za