



ICAO

SAT DOC 002

ATM OPERATIONAL CONTINGENCY PLAN FOR SOUTH ATLANTIC OCEANIC FIRs

ALIGNED WITH THE NORTH ATLANTIC REGION



Second Edition
28.11.2024

**Published on behalf of the South Atlantic Implementation
Management Group for the Continued Improvement of Air Traffic
Services over the South Atlantic**

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RECORD OF AMENDMENTS

Amdt. Number	Effective Date	Details
1st Ed.	08 February 24	<i>Approved by SAT-IMG Decision 03-7</i>
2 nd Ed.	29 November 2024	<i>Approved by SAT-IMG Decision 04-6</i>

ABBREVIATIONS AND ACRONYMS

ACAS	Airborne Collision Avoidance System
ACC	Area Control Centre
ADS-B	Automatic Dependent Surveillance-Broadcast
ADS-C	Automatic Dependent Surveillance-Contract
AFTN	Aeronautical Fixed Telecommunication Network
AIDC	ATS Inter-facility Data Communications
AIM	Aeronautical Information Management
AIRAC	Aeronautical Information Regulation and Control
AMHS	ATS Message Handling System
ANSP	Air Navigation Service Provider
AN-Conf	Air Navigation Conference
AORRA	Atlantic Ocean Random Routing Area
APIRG	AFI Planning and Implementation Regional Group
ASBU	Aviation System Block Upgrade
ASECNA	Agency for the Safety of Air Navigation in Africa and Madagascar
ATC	Air Traffic Control
ATFM	Air Traffic Flow Management
ATIS	Automatic Terminal Information Service
ATS	Air Traffic Services
ATM	Air Traffic Management
ACDM	Airport Collaborative Decision-Making
AOCG	ATM Operational Contingency Group
CFIT	Controlled Flight into Terrain
CLAM	Cleared Level Adherence Monitoring
CNS	Communications, Navigation, Surveillance
CPDLC	Controller Pilot Data-link Communications
CTA	Control Area
CTR	Control Zone
DME	Distance Measuring Equipment
ESAF	East and Southern African Region
EUROCONTROL	European Organisation for the Safety of Air Navigation
FIR	Flight Information Region
FLAS	Flight Level Allocation Scheme
FUA	Flexible Use Airspace
GANP	Global Air Navigation Plan
GASP	Global Aviation Safety Plan
IATA	International Air Transport Association
IFBP	IATA In-Flight Broadcast Procedures (withdrawn wef 31 December 2023)
ICAO	International Civil Aviation Organization
IFALPA	International Federation of Airline Pilots' Association
IFATCA	International Federation of Air Traffic Controllers' Association
IMC	Instrument Meteorological Conditions
MET	Meteorological
METAR	Meteorological Aerodrome Report
MLAT	Multilateration
NAT	North Atlantic Region
NOTAM	Notice To Airmen
OCA	Oceanic Control Area
OACC	Oceanic area control centre
PBN	Performance-based Navigation
RAM	Route Adherence Monitoring
RANP	Regional Air Navigation Plan

RNAV	Area Navigation
RNP	Required Navigation Performance
RVSM	Reduced Vertical Separation Minimum
SAR	Search and Rescue
SAT	South Atlantic Region
SBAS	Space Based Augmentation System
SIGMET	Significant Meteorological Information
SLOP	Strategic Lateral Offset Procedure
STCA	Short Term Conflict Alert
SUA	Special Use of Airspace
SWIM	System-Wide Information Management
TAF	Terminal Area Forecast
TIBA	Traffic Information Broadcast by Aircraft
TMA	Terminal Control Area
TBO	Trajectory Based Operations
TCAS	Traffic Collision Avoidance System
TOC	Transfer of Control
VHF	Very High Frequency
VAAC	Volcanic Ash Advisory Centre
VMC	Visual Meteorological Conditions
VOLMET	Meteorological Information for Aircraft in Flight
VOR	Very High Frequency Omni-directional Radio Range
WACAF	West and Central African Region
WAFC	World Area Forecast Centre

FOREWORD

This edition of the Air Traffic Management (ATM) Contingency Plan for Air Traffic Services (ATS) of the SAT Oceanic FIRs has been developed by a SAT IMG Project Team and was based on the last version of the SAT contingency plan which was developed after the 2nd Atlantic Coordination Meeting in 2019. This Contingency Plan will come into effect with the approval of the SAT Implementation Management Group (SAT-IMG) and final endorsement from the SAT Steering Group (SAT-SG).

This Contingency Plan provides the contingency arrangements to be introduced to permit international flights to transit the SAT Region without disruption, in the event of a natural disaster, manmade disaster or any other event which makes the air traffic and supporting services normally undertaken by Area Control Centres (ACCs) within the SAT Region partially or totally unavailable.

The SAT has several Area Control Centres to control Air Traffic within their Region. These Centres are responsible for the provision of Air Traffic Services within SAT Region. As such, in an event that one ACC or multiple ACCs becomes inoperable, and ATS becomes unavailable, the time span taken to restore normal level of service could vary. During this interim period, flight operations within a specific FIR would be restricted to a degree.

This Contingency Plan has been developed and in close co-operation and collaboration with the civil aviation authorities responsible for the adjacent FIRs and implemented with the knowledge of the representatives of the users of the airspace. Military authorities have also been consulted and the elements of the Plan and the associated contingency procedures thereto has been concurred.

The Contingency Plan will be activated by promulgation of a NOTAM issued by an International NOTAM Office as far in advance as is practicable. However, when such prior notification is impracticable for any reason, the Plan will be put into effect on notification by a Designated Authority, on behalf of and as authorized by the Civil Aviation Authority. It is expected that the civil aviation authorities concerned and the airline operators will fully cooperate to implement the Plan as soon as possible.

This Contingency Plan has been prepared in coordination with the International Civil Aviation Organization (ICAO) to meet the requirements in ICAO Annex 11 — *Air Traffic Services to the Convention* to provide for the safe and orderly continuation of international flights through all FIRs.

CONTINGENCY SITUATIONS AFFECTING ACC FACILITIES WITHIN THE SOUTH ATLANTIC OCEANIC FLIGHT INFORMATION REGIONS

1. PREAMBLE

- 1.1 The objective of this ATM Contingency Plan is to specify co-ordination procedures between the SAT States. The signatories undertake that the procedures contained herein shall remain in force from the effective date. Amendments shall follow the procedures described in paragraph 3 below. This ATM Contingency Plan supersedes and cancels any existing SAT ATM Contingency Plans from the effective date.

2. EFFECTIVE DATE

- 2.1 The provisions in this ATM Contingency Plan shall enter into force from 08 February 2024 onwards.

3. AMENDMENTS

- 3.1 Any change to this ATM Contingency Plan, including its cancellation or replacement, requires the consent of the SAT States concerned. This applies to the substance of the change as well as to its date of applicability. Any change shall be made either in the context of meeting between the SAT States, or by exchange of correspondence, or by exchange of AFTN messages, with acknowledgment by all signatories.
- 3.2 Whilst temporary deviations from these procedures may be agreed between the SAT States supervisors concerned, permanent amendments to this document shall be effective only in the form of a written amendment duly signed by authorized representatives.

4. OBJECTIVE

- 4.1 The procedures contained herein are supplementary to the ICAO Standards and Recommended Practices Annexes 2 and 11, the Procedures for Air Navigation Services in Doc 4444 and the Regional Supplementary Procedures in Doc 7030. They detail the condition under which the responsibility for the provision of air traffic services shall be transferred between the ATS units mentioned within this document.
- 4.2 This Air Traffic Management (ATM) Contingency Plan contains details of the arrangements in place to ensure, as far as possible, the continued safety of air navigation in the event of partial or total disruption of Air Traffic Services within the SAT Oceanic FIRs.
- 4.3 This document is produced in accordance with the requirement of ICAO Annex 11 – Air Traffic Services and it details both standard procedures throughout the SAT Oceanic FIRs and the procedures specific to the individual ACCs within the SAT Region.
- 4.4 ATC services within the SAT Region are provided from a number of geographical locations and this plan describes the contingency arrangements for these facilities. It is considered unlikely that any physical contingency at one particular facility will affect another directly.

5. SCOPE OF THE PLAN

- 5.1 This plan is presented as follows:

Part 1 - Standard Contingency Plan Procedures

- Outlines the standard procedures for individual ACCs adopted by ATC facilities in the event of contingency situations. The plan considers contingency situations, which may result in a

degradation of the ATC service, provided (limited service) as well as situations where there is a total loss of the ability to provide ATC services (no service).

Part 2 - Contingency Procedures within the EUR-SAM Corridor,

Part 3 - Contingency Procedures for the South Atlantic Airspace, and

Part 4 - Specific Procedures within each FIR

- Outline the steps taken by ACCs of different States to deal with a medium/long term unavailability of an ACC facility and in particular the procedures detailed by each State's Contingency Plan.

6. SAT AIRSPACE MAP

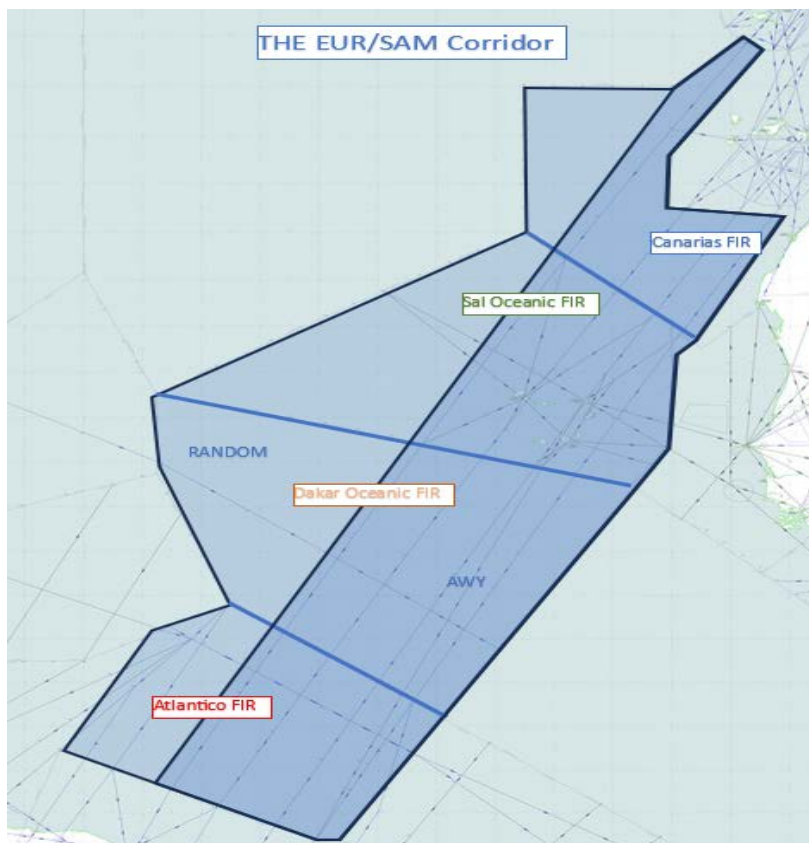


7. STATES AND FIRS AFFECTED

- 7.1 This document contains contingency procedures for those ACCs who provide an ATC service within the SAT Region, and those ACCs whose airspace has a common boundary with the NAT Region for which supporting procedures are published.
- 7.2 The States, FIRs and ACCs affected by this contingency plan and for which procedures are promulgated are as follows:
- a) Portugal, Santa Maria FIR (interface NAT)

- b) Spain, Canarias FIR
- c) Cape Verde, Sal Oceanic FIR
- d) Senegal, Dakar Oceanic FIR
- e) Ghana, Accra FIR
- f) Angola, Luanda FIR
- g) South Africa, Johannesburg Oceanic FIR
- h) Argentina, Comodoro Rivadavia FIR, Ezeiza FIR
- i) Uruguay, Montevideo FIR
- j) Brazil, Atlántico FIR
- k) French Guiana, Cayenne FIR
- l) Trinidad and Tobago, Piarco FIR
- m) United States, New York Oceanic East FIR (interface NAT)

- 7.3 The main traffic flow areas within the South Atlantic (SAT) airspace are the EUR/SAM corridor and AORRA (Atlantic Ocean Random Routing Area) airspace. The EUR/SAM corridor is defined as:



- 7.4 The AORRA (Atlantic Ocean Random Routing Area) airspace has been designated as the area with vertical limits FL290 and FL410 within the, Atlántico (FL245 to FL410), Accra (FL245 to FL410), Dakar Oceanic (FL245 to FL410), Comodoro Rivadavia, Ezeiza, Johannesburg Oceanic, Luanda Oceanic and Montevideo FIRs bounded by a line joining the following coordinates:

Commencing at 60 00 00S 015 00 00E
 A straight line to 27 30 00S 015 00 00E

Then straight lines to each of the following co-ordinates:

17 30 00S 011 13 00E
09 40 00S 011 24 00E (ONTAR)

Then via a 120 NM arc centred on Luanda to:

07 48 00S 011 30 00E (OPAPO)
05 20 00S 010 00 00E
05 30 00S 008 50 00E
04 10 00S 006 35 00E
00 00 00S 006 35 00E
00 00 00S 026 34 00W
08 54 00S 031 56 00W
11 55 00S 032 53 00W
15 34 00S 036 18 00W
18 30 00S 038 45 00W
19 43 00S 034 55 00W
26 45 00S 043 45 00W
34 00 00S 050 00 00W
34 00 00S 051 33 20W
36 45 30S 053 11 47W
58 21 06S 053 00 00W
60 00 00S 053 00 00W
60 00 00S 015 00 00E

7.5 Flights operating within the AORRA shall enter and exit AORRA via the following gates:

Johannesburg Oceanic FIR

IBLOK 18 47 40.00S 011 40 34.00E
NIBEK 22 58 31.00S 013 12 54.00E
NIGAM 26 33 56.20S 014 37 10.00E
OKTEL 28 07 53.81S 015 00 00.00E
UVGOD 29 09 43.27S 015 00 00.00E
ALDOV 30 37 12.00S 015 00 00.00E
BUXIR 32 00 00.00S 015 00 00.00E
OKDOG 33 05 00.00S 015 00 00.00E
ITMEK 34 12 00.00S 015 00 00.00E
ITLIK 35 16 00.00S 014 59 57.00E
NEPUM 32 15 51.00S 032 27 43.00E
EGVOL 34 02 49.00S 031 01 46.00E
EPNET 37 00 34.00S 023 59 04.00E
GEPAB 37 00 41.00S 018 30 42.00E
IMKAM 31 14 20.00S 015 00 31.00E
ANTOM 29 50 00.00S 015 00 00.00E
GEPEV 35 04 42.00S 029 59 12.00E
ETBOR 37 00 05.00S 027 42 42.00E
NERAX 36 01 07.00S 029 01 40.00E
AVANA 37 00 00.00S 026 00 00.00E

Luanda FIR

URAPI 09 49 07.00S 003 48 07.00W
OSUKO 09 01 01.00S 001 36 04.00W

GAPEL 08 17 06.00S 000 19 00.00E
TERBA 04 47 09.00S 000 35 00.00E
SEMUL 05 00 00.00 S 008 00 00.00 E
NERUP 05 28 34.79 S 009 00 00.00 E
TIMAK 05 20 00.00 S 010 00 00.00 E
TETUX 06 00 00.00 S 010 25 00.00 E
NIDUS 07 00 00.00 S 011 00 00.00 E
OPAPO 07 48 00.00S 011 30 00.00E
UTSAG 08 49 33.00 S 011 13 39.00 E
ONTAR 09 40 00.00 S 011 24 00.00 E
DUGRA 11 39 36.00 S 011 20 34.00 E
EPMES 13 00 00.00 S 011 19 24.00 E
EGNAB 14 25 30.00 S 011 17 24.00 E
ETLOV 16 00 00.00 S 011 15 24.00 E

Accra (Oceanic) FIR

04 00 00.00N 005 11 42.00E
04 00 00.00N 003 00 00.00W
00 00 00.00 006 35 00.00E
04 10 00.00S 006 35 00.00E
05 51 26.00S 006 33 49.00E
09 31 51.00S 002 59 46.00W

Atlántico FIR

CIDER 24 07 49.00S 040 16 23.00W

EKALO 22 26 00.00S 038 08 48.00W
 GARUP 18 51 48.00S 037 40 24.00W
 PORGA 18 40 48.00S 038 14 36.00W
 POLVO 18 35 24.00S 038 31 12.00W

Ezeiza FIR

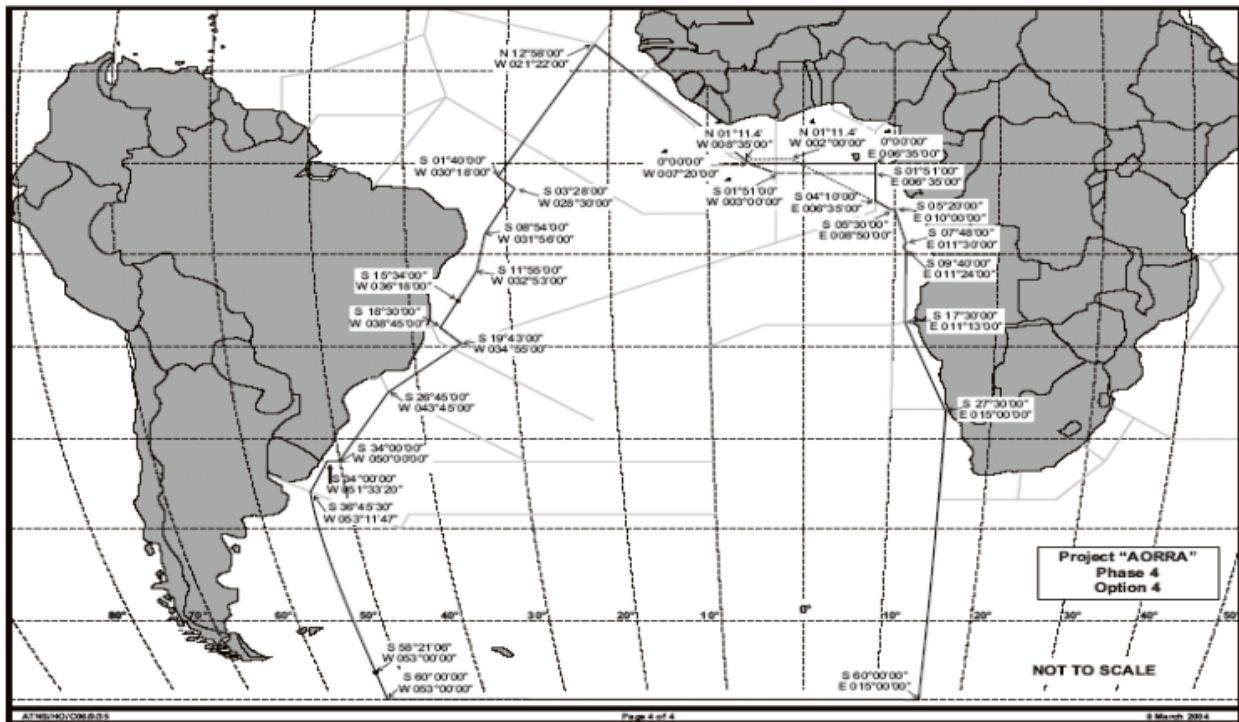
GUXOR 37 22 30.00S 053 00 00.00W
 BISUL 43 31 22.00S 053 00 00.00W

Montevideo FIR

BIVEN 36 35 00.00S 053 05 10.00W

Comodoro Rivadavia FIR

EGLAS 48 00 00.00S 053 00 00.00W
 IRIRO 60 00 00.00S 053 00 00.00W



8. BASIC PRINCIPLES OF CONTINGENCY MANAGEMENT

8.1 The present plan is based on the following principles:

- a) Only international civil aviation operations, conducted in accordance with IFR in the upper airspace of SAT Oceanic FIRs and performed along the contingency air traffic routes established as described in the respective LOPs, are catered for by this plan.
- b) Air Traffic Services are assumed to be limited or not available within the FIRs mentioned.
- c) A flight level allocation scheme is applied so that over points of crossing or converging traffic, vertical separation will always be provided.
- d) All Random Routing shall be suspended and will not be authorized during the contingency situation. Aircraft shall be routed according to one of the ATS routes described in this document.
- e) In the event of an ATS contingency situation, air traffic will be allocated with restricted use of flight levels and routes.
- f) Each State, according to its own Contingency Plan shall take other measures as follows:
 - Suspension of all VFR operations;
 - Delay and/or suspension of all general aviation IFR operations;
 - Delay and/or suspension of all commercial IFR operations.

9. TRANSITION TO CONTINGENCY SCHEME

- 9.1 During times of uncertainty when airspace closures seem possible, aircraft operations should be prepared for a possible change in routing while en-route.
- 9.2 In the event of airspace closure that has not been promulgated, ATC should, if possible, broadcast to all traffic what airspace has been closed and to standby for further instructions.
- 9.3 South Atlantic Oceanic Flight Information Regions should recognize that when closure of airspace and/or airports is promulgated, individual airlines might have different company requirements as to their alternative routings. ATC should be alert to respond to any requests by aircraft and react commensurate with safety.
- 9.4 When a specific ACC of the SAT FIRs starts a contingency situation, it will proceed as follows.

10. SHORT TERM ACTIONS

- 10.1 Will inform, by its entire possible and quickest means, its concerned ACC's about its contingency situation, specifying that the general contingency procedures of the SAT FIRs and the specific contingency procedures reflected in the contingency annex to its LOA's are in force. Depending on the deterioration caused by the contingency, the neighbouring ACC shall expect a reduction in the inbound traffic to the affected Airspace, even a Rate 0, and be prepared for re-routings or diversions.
- 10.2 Will inform its collateral ACC's about the real situation of the air traffic under its responsibility, as well as the information about the estimated traffic at the moment that the contingency situation started.
- 10.3 Neighbouring ACC will expect that traffic overflying the affected airspace will comply with contingency procedures, maintain last assigned Flight Level and will fly offset according to SLOP, proceeding to the affected Airspace according to the responsible ACC requests.

11. MEDIUM TERM ACTIONS

- 11.1 After a reasonable period of time, The ACC affected by the Contingency will communicate to its collaterals the level of degradation in its ATS service. Neighbouring ACC will manage the traffic

12. LONG TERM CONTINGENCY ARRANGEMENTS

- 12.1 In the event that a FIR loses the ability to provide an ATC service from the OACC/ACC for an extended period, contingency plans are in place to provide the service from an alternate location.
- 12.2 The facility will be established at another SAT location but will take some time to put in place, as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the specific ACC facility may influence the time required to bring the contingency facility into service, but it could be expected that in most circumstances an ATC service would be available in that specific ACC within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the FIR.
- 12.3 When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities including VHF clearance delivery, OCL, ADS, CPDLC and AFTN.
- 12.4 Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual buildup to near normal operating levels. The facility is designed to meet 95% of demand and is sustainable in the long term.

13. PROCEDURES TO BE FOLLOWED BY ATS UNITS

- 13.1 Within the South Atlantic, filed flight plan messages shall continue to be transmitted through AMHS/AFTN and processed as per normal procedure.
- 13.2 The adjacent FIRs, shall be responsible for:
- a) Transmitting flight plans and estimate messages, to the extent practicable, through the AMHS/AFTN:
 - A current flight plan message, at least one (1) hour before the aircraft's estimated time of arrival over the relevant entry point of the next Oceanic FIR. An estimate message for the relevant entry point of a next Oceanic FIR, at least 30 minutes before the aircraft's estimated time of arrival over that point.
 - b) Transmitting, through the AFTN, to the ACC serving the first FIR which an aircraft will enter after departing or transiting the Oceanic FIR, an estimate message for the aircraft over the relevant exit point of the Oceanic FIR, as soon as the aircraft's last position report has been received, containing the aircraft's estimated time of arrival over the exit point.
 - c) Applying a longitudinal separation of at least fifteen (15) minutes over the relevant entry point of Oceanic FIR, between aircraft flying at the same flight level and following the same contingency air traffic route and instructing the respective pilot-in-command to maintain the flight level and the Mach number assigned throughout the respective Oceanic FIR.
 - d) Not authorizing any flight level or Mach number changes of any aircraft transiting through the respective Oceanic FIRs, within a period of ten (10) minutes before entering the next Oceanic FIRs.
 - e) Requesting aircraft intending to enter the next Oceanic FIR the last position report with the adjacent FIR, the estimated time of arrival over the relevant entry point of the next Oceanic FIRs and an estimated time of arrival at destination, on the contingency air traffic route used.
 - f) Informing inbound aircraft of contingency measures within the respective Oceanic FIR's. Neighbouring FIRs shall in turn be advised of the intentions of the affected flight.
 - g) Tactical ATC considerations during periods of overloading may require re assignment of routes or portions thereof.
 - h) Where possible, aircraft on long-haul international flights shall be given priority with respect to cruising levels.
 - i) Transfer of control and communications shall normally coincide with the transfer of control point. The transfer of control point is the Common FIR Boundary unless otherwise coordinated.
- 13.3 In the event that Air Traffic Services cannot be provided within a specific South Atlantic Oceanic Flight Information Region, the respective CAA/Authority shall publish a NOTAM (see Appendix B) indicating the following:
- a) The time and date of the beginning, and if available, the ending of the contingency measures.
 - b) Airspace available for overflying traffic and airspace to be avoided.
 - c) Details of facilities and services available and/or not available and any limits on ATS provision including an expected date of restoration of service.
 - d) Information on the provision of alternate services.
 - e) ATS Contingency routes.
 - f) Procedures to be followed by pilots.
 - g) Any other details with respect to the distribution and actions being taken.

14. CONTINGENCY ROUTE STRUCTURE AND FLAS

- 14.1 The Flight Level Allocation Scheme will be used for the ACC to maintain a flow of traffic overflying Airspace with no ATS service at all.
- 14.2 In circumstances where an ACC operates with degraded ATS services, the ACC will establish the rate of traffic acceptance and will decide if maintains the normal Flight Level Operations.

15. SEARCH AND RESCUE IN CONTINGENCY PLAN

- 15.1 The ACCs involved in this contingency plan are required to assist any distressed aircraft of which they are aware and which flies over a contingency airspace.
- 15.2 The center that receives a distress message from an aircraft shall send the necessary messages (INCERFA, ALERFA or DETRESFA) to all authorities in the SAR service of the SAT States including the SAR authority of the center, which is in contingency situation.
- 15.3 Each SAR authority shall assist as necessary its neighbour as requested in their LoA.

16. PUBLIC HEALTH EMERGENCIES

- 16.1 In the event of public health emergency received from by the relevant SAT ACC from a pilot, such as the outbreak of a contagious on board disease or reported existence of on board pathogens presenting a risk of disease outbreak,
- 16.2 The relevant SAT ACC shall send a message as soon as possible and use the most expeditious means of communication, to The ATS unit serving the destination / departure, and to the aircraft operator or its designated representative.
- 16.3 To avoid misunderstanding that may result in inappropriate reaction from the stakeholders including air operators, information provided by the Health Sanitary Board (HSB) should be obtained in written form and relayed to air operators in written form. Where communication means do not enable relay of written text, the information shall be read verbatim.

17. OPERATION UNDER THE EFFECTS OF VOLCANIC ASH

- 17.1 If a volcanic ash cloud is reported or anticipated by an ATS Unit, the relevant ACC should take the following actions:
- a) Immediately transmit relevant information to the flight crews of potentially affected aircraft to ensure that they are aware of the current position and expected position of the cloud and the flight levels concerned.
 - b) Respond to requests for course or flight level changes wherever possible;
 - c) Propose a route change to avoid or leave the reported or predicted areas of presence of the volcanic ash cloud when requested by the pilot or as the controller deems necessary, and;
 - d) Where possible, request a special flight reports when the flight route enters or anticipates the planned volcanic ash cloud and transmit the report to the appropriate agencies.

18. SECURITY CHALLENGES AFFECTING AIR NAVIGATION SYSTEM (MILITARY CONFLICT, ACTS OF UNLAWFUL INTERFERENCE, CONFLICT ZONES, ETC.) : TOTAL UNAVAILABILITY OF THE AFFECTED AIRSPACE OR FIR REQUIRING THE AVOIDANCE OF THE CONCERNED FIR OR PORTION OF AIRSPACE

- 18.1 Under that level of contingency, the airspace is closed and users are required to avoid the affected

airspace. That level of contingencies include:

- a) Airspace Not Safe, due to causal events such as industrial action, earthquake, nuclear emergency, etc. affecting the provision of ATS.
- b) Airspace Not Secured due to contingency events such as military activity, military conflict, war, terrorist activities, unlawful interference, etc. necessitating the avoidance of such airspace.
- c) Airspace Not Available, due to causal events such as national security-political decisions, civil unrest, imposition of sanctions, etc. necessitating the avoidance of such airspace

18.2 In that situation:

- a) ANSP/States can apply procedures in accordance with ICAO Doc 4444 (PANS-ATM), Chapter 15. Procedures for emergency situations, interruptions to communications and fortuitous situations.
 - b) ANSP/States apply procedures for the tactical definition and promulgation by NOTAM of contingency ATS routes to avoid airspace affected by contingency requiring the avoidance of the affected airspace/ACC/FIR
 - c) Adjacent States affected by that level of contingency rerouting and traffic overload may apply appropriate ATFM measures to accommodate the increased traffic flow, where applicable.
 - d) Human performance-based training and procedures for response to ATM contingency operations for all staff providing related ATS; Flight Information; Aeronautical Information; Aeronautical Meteorology, Public Health Emergencies; Aeronautical Telecommunication; CNS equipment maintenance; and cyber security and resilience should be developed and implemented.
-

PART 1. STANDARD CONTINGENCY PLAN PROCEDURES - ACC PROCEDURES IN THE EVENT OF CONTINGENCY SITUATION

1.1 IMPLEMENTATION OF THE PLAN

1.1.1 In the event of adoption of contingency procedures ACCs will notify all affected agencies and operators appropriately.

1.1.2 In Limited Service situations the individual ACCS will decide upon the level of notification necessary and take action as required to cascade the information.

1.1.3 In No Service situations it is likely that the ATC facility involved will be subject to evacuation. In this instance the will issue NOTAMs and broadcast on appropriate frequencies that contingency procedures have been initiated. The notification process employed by individual ACCs is detailed in their respective Contingency Plans.

1.1.4 Issue a NOTAM advising operators of the evacuation.

1.1.5 Broadcast an evacuation message on appropriate frequencies.

“Emergency evacuation of (OACC) is in progress. No air traffic control service will be provided by (OACC). Use extreme caution and monitor (control frequencies), emergency frequencies and air-to-air frequencies. Contact the next air traffic control unit as soon as possible.”

1.2 AREA CONTROL CENTRE (ACC) PROCEDURES

1.2.1 The plan considers contingency situations, which may result in a degradation of the ATC service, provided (limited service) as well as situations where there is a total loss of the ability to provide ATC services (no service).

1.2.2 Where available, information is also provided outlining the steps taken by ACCs to deal with a long-term unavailability of an ATC facility. In particular the procedures detailed by each ACC facility will, insofar as possible, comprise the following:

- FIRs for which the contingency plan applies
- FIRs with supporting procedures
- notification procedures
- implementation of the plan
- limited service
- disruption of ground/air communication capability
- disruption of ability to provide control services
- no service
- loss of ground/air communication capability
- loss of ability to provide control services
- contingency route structure
- long-term contingency arrangements
- interception
- Search and Rescue
- public health
- volcanic ash
- security challenges affecting Air Navigation Services
- contact details

1.3 NOTIFICATION PROCEDURES

1.3.1 In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ACCs via AFTN.

1.3.2 In a no service situation the OACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent. Agencies, which receive the message, will broadcast an evacuation message on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

1.4 CONTINGENCY PROCEDURE IMPLEMENTATION

1.4.1 In the event of implementing contingency procedures, the ACC will notify all affected agencies and operators appropriately.

1.4.2 In Limited Service situations the individual ACC will decide upon the level of notification necessary and take action as required to cascade the information.

1.4.3 In No Service situations it is likely that the ATC facility involved will be subject to evacuation. In this instance the ACC will issue NOTAMs and broadcast on appropriate frequencies that contingency procedures have been initiated. The notification process employed by individual ACCs is detailed in their respective entries in this plan.

1.4.4 Issue a NOTAM advising operators of the evacuation. The following is an example of the type of information, which may be promulgated:

“Due to emergency evacuation of (OACC) all ATC services are terminated. Flights within (OCA) FIR should continue as cleared and contact the next ATC agency as soon as possible. Flights not in receipt of an oceanic clearance should land at an appropriate airfield or request clearance to avoid (OAC) FIR. Flights should monitor (defined frequencies).”

1.4.5 Broadcast an evacuation message on appropriate frequencies:

“Emergency evacuation of (OACC) is in progress. No air traffic control service will be provided by (OACC). Use extreme caution and monitor (control frequencies), emergency frequencies and air-to-air frequencies. Contact the next air traffic control unit as soon as possible”.

1.5 EVACUATION MESSAGES BY ADJACENT ACC

1.5.1 The ACC assuming responsibility for a specific FIR shall endeavour to provide an ATC service throughout the Contingency FIR as soon as evacuation commences. The ACC will send a signal to appropriate addresses advising of the specific ACC evacuation:

“EMERGENCY Evacuation of “ABC” Oceanic Control Centre is in progress. “ABC” will provide no IFR control. “DEF” OAC shall endeavour to monitor traffic within the “ABC”. HF communication is unaffected. Instruct all flights to monitor VOLMET, emergency and air-to-air frequencies. Flights not in receipt of an oceanic clearance must land at an appropriate aerodrome, or request appropriate re-clearance to avoid “ABC”. Flights within ABC FIR should contact the next ACC as soon as possible. Refer to contingency documentation for advice”

1.5.2 “DEF” shall ensure and verify that information on all cleared aircraft proceeding from “DEF”, through their Oceanic Airspace is passed to the next affected unit. The following telephone numbers may be used:

1.6 NOTAM

1.6.1 In addition, the ACC with contingency situation will issue the following NOTAM:

- a) *“Due to evacuation of the “ABC” Oceanic Area Control Centre, operations have been suspended. Contingency plans have been activated and a contingency service will commence shortly.*
- b) *Oceanic clearance for aircraft will not be issued until the commencement of a contingency service and adjacent ATS providers will not permit aircraft without an Oceanic clearance to enter the “ABC” OCA.*
- c) *Aircraft operators are advised that stringent ATFM plans have been implemented for this airspace and slot tolerance is essential in order to obtain the maximum capacity from the contingency service.*
- d) *Further information on the services available will be issued prior to the commencement of operations.”*

1.7 HF VOLMET

1.7.1 ABC ACC will broadcast the following message on HF VOLMET:

“Emergency evacuation of “ABC” OACC is in progress. No air traffic control service will be provided by “ABC” ACC. Use extreme caution and monitor “ABC” Radio, emergency frequencies and air-to-air frequencies. Contact the next air traffic control unit as soon as possible”.

1.8 LIMITED AIR TRAFFIC SERVICE

1.8.1 Disruption of ground/air communication capability

1.8.1.1 A limited communication service will be maintained with the assistance of adjacent Aeronautical Radio Stations. HF services on the South Atlantic normally provided by will be delegated as appropriate to the other Aeronautical Radio Stations namely Radio, Radio, ≥.... Radio and

1.8.2 Situations which could result in a Limited Service

Equipment Failure

- Transmitters (Loss of a number of Transmitters) Receivers (Loss of a number of Receivers)
- Aerials (Loss of a number of Aerials)
- Data Lines (Loss of data lines betweenRadio and OACC)

Propagation

- Radio Propagation resulting in partial fade-out can be affected by many factors including Solar
- Flares and Geomagnetic Storm

Staffing

- Reduced Staffing
- Illness
- Weather (Severe Weather i.e. Storm, Snow, Flooding) Industrial Relations issues

ADS/CPDLC/ Failure

- Resulting in increased HF congestion as flights revert to voice communications

Security Threat

- Depending on the level of the Security threat and if essential staff are allowed to remain on station

1.8.3 Dispersal of traffic

1.8.3.1 The ACC with contingency situation shall determine and coordinate necessary oceanic restrictions. Traffic with oceanic clearance or already approved to enter their specific FIR shall have priority over the remaining services. Traffic without oceanic clearances or not coordinated with above mentioned ACC may be subject to restrictions to meet the limited oceanic service capability.

1.8.4 Notification

1.8.4.1 The ACC experiencing a contingency situation shall be responsible for notification of oceanic service changes. Notification will be through typical channels.

1.8.4.2 The Supervisor of this ACC shall coordinate with adjacent Aero-radio facilities the required level of assistance.

1.8.5 Roles and responsibilities of adjacent facilities

1.8.5.1 The action required of adjacent service providers will vary depending of the nature of the service limitation. After notification by ACC with contingency situation, the adjacent facilities shall be responsible to implement the necessary procedures to meet any Oceanic restrictions.

1.8.5.2 Adjacent Aero-radio facilities shall be responsible to implement the necessary procedures to meet the ACC with contingency situation Radio requirements.

1.8.6 Separation Minima

1.8.6.1 The ACC with contingency situation shall determine and co-ordinate additional separation requirements according to the level of service available.

1.8.7 Air Traffic Management

1.8.7.1 The ACC experiencing a contingency situation shall coordinate traffic restrictions with the adjacent units and/or ATFM Centres as appropriate. Restrictions may be applied to the following: Traffic volume (flow rate, slots); Oceanic routings; En-route clearance change requests; Separation to be applied; Activation of contingency routes and associated FLAS. Network Manager Operations Center (NMOC) can be requested to assist with establishing and coordinating service levels in Santa Maria OAC for the westbound flow.

1.8.8 Effect On Flights

1.8.8.1 Joint Operations between this specific FIR and adjacent FIR increases the ability to provide a 'normal' service with assistance from adjacent aeronautical stations. In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

1.8.8.2 In the event of ADS/CPDLC failure, flights will revert to HF/VHF/SATCOM causing frequency congestion, which may result in ATFM measures being imposed as necessary.

1.8.9 Disruption of Ability to Provide Control Services

1.8.9.1 The FIR experiencing contingency situation shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid oceanic clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

1.8.9.2 Traffic without a valid oceanic clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

- a) Separation standards: The identified ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.
- b) Air Traffic Flow Management: The identified ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical re-routing measures. This ACC shall co-ordinate these restrictions where necessary with adjacent ACCs where they may affect the flow of traffic through these unit's airspace.
- c) Responsibilities of adjacent ACCs: The action required of adjacent ACCs will vary dependent on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

1.9 FLIGHT CREW PROCEDURES

1.9.1 Traffic Information Broadcast by Aircraft (TIBA) procedures

1.9.1.1 The following communications procedures have been developed in accordance with the Traffic Information Broadcast by Aircraft (TIBA) procedures recommended by ICAO (Annex 11 – Air Traffic Services, Attachment B). These procedures should be applied when completing an altitude change to comply with the oceanic clearance.

1.9.1.2 At least 3 minutes prior to the commencement of a climb or descent the flight should broadcast on the last assigned frequency, 121.5, 243.0 and 123.45 the following:

“ALL STATION (callsign) (direction) DIRECT FROM (landfall fix) TO (oceanic entry point) LEAVING FLIGHT LEVEL (number) FOR FLIGHT LEVEL (number) AT (distance)(direction) FROM (oceanic entry point) AT (time)”.

- a) When the level change begins, the flight should make the following broadcast:

“ALL STATIONS (callsign) (direction) DIRECTION FROM (landfall fix) TO (oceanic entry point) LEAVING FLIGHT LEVEL (number) NOW FOR FLIGHT LEVEL (number).”

- b) When level, the flight should make the following broadcast:

“ALL STATIONS (callsign) MAINTAINING FLIGHT LEVEL (number)”.

1.9.2 Communications

- a) Communications services will be maintained using available equipment and with the assistance of adjacent facilities.
- b) SATCOM equipped flights using INMARSAT network may contact ACC with Contingency through published short codes 426302 and 426305.

- c) SATCOM equipped flights using other satellite network than INMARSAT may contact the specific ACC dialing directly TEL number as per State AIP or paragraph 24 of this document.
- d) Flights reporting via ADS and using CPDLC communications may maintain data link services until otherwise instructed by a ground facility.

1.9.2.1 Pilots flying in a contingency airspace in the EUR-SAM Corridor should follow the IATA Traffic Information Broadcasts by Aircraft procedures as specified below:

- a) Must be in permanent contact by the pilot-to-pilot frequency (123.45 MHz).
- b) Reports positions or estimates and the beginning and the end of the climb/descent phases.
- c) Maintain a watch for conflicting traffic, both visually and by reference to ACAS.
- d) Turn on all aircraft exterior lights.
- e) Keep the SSR transponder on all times.
- f) Climb and descend phases must be clearly performed at the right side of the route axis. They are also required to apply the lateral deviation off-set procedures as specified in relevant AIC published by the EUR/ SAM corridor States.
- g) No in flight change of level will be authorized except in cases of emergency.
- h) Only traffic landing at an aerodrome on the affected ACC will be allowed to perform descent phase. Climb and descend phases must be clearly performed at the right side of the route axis. They are also required to apply the lateral deviation off-set procedures as specified in relevant AIC published by the EUR/ SAM corridor States.
- i) Enroute flights are recommended to perform SLOP procedure.

1.10 FLIGHT CREW AND OPERATOR PROCEDURES

1.10.1 General

1.10.1.1 The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service.

1.10.1.2 On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

1.10.2 Procedures to be followed by Operators and Aircraft

1.10.2.1 All aircraft transiting through the South Atlantic shall strictly comply with the following:

- a) As soon as the Pilots receive a message of Contingency in the airspace where a total disruption of ATS takes place, they will apply a 2 NM right offset SLOP (according to ICAO Doc 4444, Paragraph 16.5). In all cases they will maintain their present flight level. An aircraft experiencing an emergency or for flight safety reasons, that are unable to maintain an assigned flight level, shall climb or descend according to the ICAO Doc 4444, 15.2. (Aircraft will offset 5 NM left or right of centerline of the airway and, once established, will change the Flight Level). Aircraft shall transmit at suitable intervals on the emergency frequency 121.5 MHz or on the TIBA* VHF frequency 123.45 MHz as well as on the published frequencies at the commencement and completion of any maneuver. All

transmissions shall comprise of the following: aircraft call sign, the aircraft position, the flight levels being vacated and crossed, etc.

- b) Pilots shall adhere to the TIBA* procedures and maintain a continuous listening watch on the VHF frequency 123.45 MHz as well as the published VHF and / or HF frequencies. Suitably equipped aircraft may communicate with the appropriate sector via ADS/CPDLC or SATCOM. Pilots shall report their position over all compulsory reporting points established along the respective contingency air traffic service route. In the event of an emergency, traffic shall transmit blind on these published frequencies at the commencement and completion of any maneuver.
- c) Aircraft intending to enter the next Oceanic FIR shall include in the last position report with the adjacent FIR the estimated time of arrival over the relevant entry point of the next Oceanic FIR and an estimated time of arrival at destination.
- d) Pilots shall contact the adjacent FIR at least ten (10) minutes before the estimated time of arrival over the relevant entry point of adjacent FIR.
- e) Pilots shall display navigation and anti-collision lights at all times.
- f) SSR Transponder will be kept on at all times.
- g) Pilots shall maintain own longitudinal separation of fifteen (15) minutes from the preceding aircraft at the same cruising level. After the contingency airspace is flown, the adjacent ACC may resume normal separations minima as per agreed LOP.
- h) Aircraft equipped with ADS/CPDLC operating within this airspace are requested to contact, if available, the affected FIR via ADS/CPDLC on the published address for FANS1 equipped aircraft or FANS/A, equipped aircraft.
- i) In the case that airspace is available but no ATS Services at all, the possible actions by Airspace Users will be avoidance of airspace, expect coordination with adjacent FIRs or/and follow NOTAM actions.

*Note *: The IATA Operational Notice regarding IFBP has been withdrawn on 31 December 2023. In the SAT airspace the TIBA procedures as described in ICAO Annex 11, Attachment B should be used as the preferred operating procedure during a contingency situation. Flights operating in the Johannesburg Oceanic FIR might still use IFBP in addition to TIBA until the South African AIP has been updated.*

1.10.3 **Actions to be taken once offset track**

1.10.3.1 If possible maintain the assigned flight level until established on the 9.3 km (5 NM) parallel, same direction track or route offset. If unable, initially minimize the rate of descent to the extent that is operationally feasible.

1.10.3.2 Once established on a parallel, same direction track or route offset by 9.3 km (5 NM), either:

- a) descend below FL290, and establish a 150 m (500 ft) vertical offset from those flight levels normally used, and proceed as required by the operational situation or if an ATC clearance has been obtained, proceed in accordance with the clearance; or

Note: Descent below FL290 is considered particularly applicable to operations where there is a predominant traffic flow (e.g. east-west) or parallel track system where the aircraft's diversion path will likely cross adjacent tracks or routes. A descent below

FL 290 can decrease the likelihood of: conflict with other aircraft, ACAS RA events and delays in obtaining a revised ATC clearance.

- b) establish a 150 m (500 ft) vertical offset (or 300 m (1000 ft) vertical offset if above FL410) from those flight levels normally used, and proceed as required by the operational situation, or if an ATC clearance has been obtained, proceed in accordance with the clearance.

Note: Altimetry System Error may lead to less than actual 500 ft vertical separation when the procedures above are applied. In addition, with the 500 ft vertical offset applied, ACAS RAs may occur.

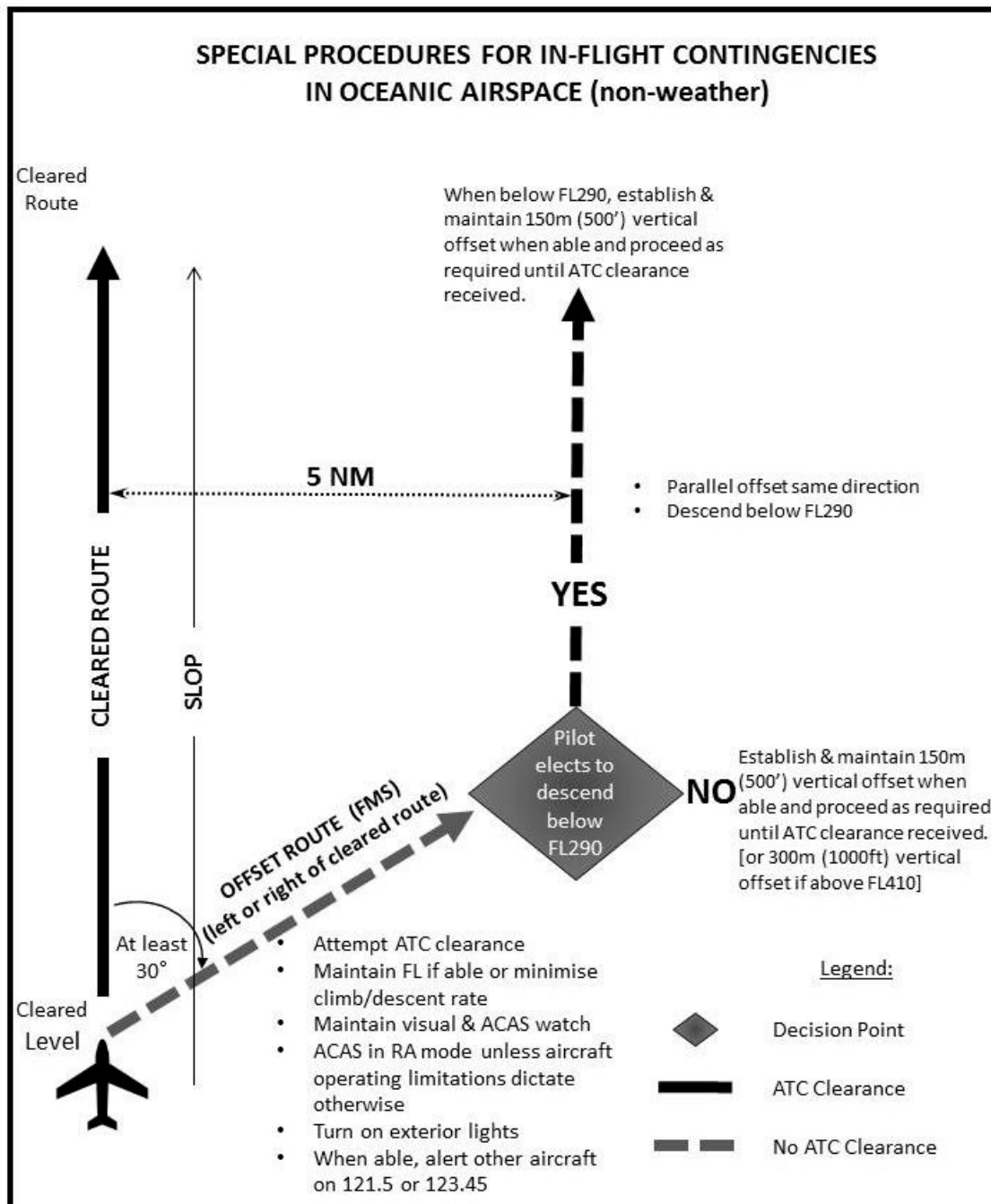


Figure 1 — Visual aid for understanding and applying the contingency procedures guidance

1.10.4 Aircraft interception

1.10.4.1 Pilots need to be aware that in light of current international circumstances, a contingency routing requiring aircraft to operate off of normal traffic flows, could result in an intercept by military aircraft. Aircraft operators must therefore be familiar with international intercept procedures contained in ICAO Annex 2- Rules of the Air Paragraph 3.8 and Appendix 2, Sections 2 and 3.

1.10.4.2 Pilots need to continuously listen out on the VHF emergency frequency 121.5MHz and should operate their transponders at all times during flight, regardless of whether the aircraft is within or outside airspace where secondary surveillance radar (SSR) is used for ATS purposes. Transponders should be set on a discreet code assigned by ATC or select code #2000 if ATC has not assigned a code.

1.10.4.3 If an aircraft is intercepted by another aircraft, the pilot shall immediately:

- a) Follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with international procedures;
- b) If possible, notify to ATS Unit;
- c) Set transponder code to 7700, unless otherwise instructed by the appropriate ATS unit;
- d) Attempt to establish radio communication with the intercepting aircraft by making a general call on the emergency frequency 121.5MHz and 243 MHz if equipped; and
- e) instructions are received by radio from any source that conflict with those given by the intercepting aircraft, the intercepted aircraft, shall request immediate clarification while continuing to comply with the instructions given by the intercepting aircraft.

1.11 NO SERVICE

1.11.1 General

1.11.1.1 In **No Service** situations it is likely that the ACC facility involved will be subject to evacuation. In this instance the ACC will issue NOTAMs and broadcast on appropriate frequencies that contingency procedures have been initiated. The notification process employed by individual ACCs is also detailed in their respective entries in this plan.

1.11.2 Loss of Air Ground Communication

1.11.2.1 In the event of an ACC being unable to provide ground/air communications for Oceanic Area of Responsibility, it will coordinate with adjacent aeronautical radio stations of the SAT Oceanic FIRs to provide ground/communications to the best of their ability.

1.11.3 Situations which could result in No Service being provided:

- a) Equipment Failure
 - Transmitters (Loss of all Transmitters) Receivers (Loss of all Receivers) Aerials (Loss of all Aerials)
 - Data Lines (Loss of data lines between (ACC) Radio and (ACC) OACC) ROFDS
- b) Propagation
 - Radio Propagation resulting in total fade-out, which can be caused by many factors including;
 - Solar Flares and Geomagnetic Storms

- c) Staffing
 - No Staff
 - Illness (seasonal influenza) weather
 - Industrial Relations issues
- d) Evacuation of Radio Station
 - Fire
 - Bomb threat
- e) Dispersal of traffic
 - Traffic within the FIR or already coordinated with the ACC experiencing a contingency situation, shall comply with their Oceanic clearance. All other traffic that has not been approved shall remain clear of this specific FIR.
- f) Communications
 - The ACC with a contingency situation will monitor aircraft as far as possible by VHF coverage. Flights reporting via ADS and using CPDLC communications must revert to voice procedures.
- g) Notification
 - In the event of no service situation the ACC with contingency situation shall be responsible for notification to adjacent ACCs. This may not be possible in the event of an unexpected catastrophic situation. Any Control unit that is unable to establish communications with the above mentioned ACC shall request assistance in determining the status of this specific ACC from adjacent units.
- h) Roles and Responsibilities of Adjacent OAC's and ACC's
 - Until Contingency Routes can be implemented adjacent units will take immediate actions for necessary traffic management procedures in accordance with this plan. The adjacent units will not issue re-clearances within the FIR experiencing a contingency situation after notification of the no service situation, unless any loss of separation minima between aircraft is detected. Adjacent ACCs shall not clear any aircraft into this FIR after notification of the loss of service.

1.12 LOSS OF ABILITY TO PROVIDE CONTROL SERVICES

1.12.1 Should a specific OACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the OCA/FIR.

1.12.2 The HF radio communications for Oceanic Centres are remotely located and should not be affected.

1.12.3 In the event that an ACC is evacuated, the adjacent Oceanic Centre will assume responsibility for the provision of Air Traffic Services (ATS) within the FIR to the best of their ability. The procedures to be adopted by Adjacent ACC are described in the Contingency Plan of the specific ACC/FIR.

1.12.4 As soon as possible after evacuation, a contingency message will be sent to the appropriate agencies, detailed in evacuated ACC Contingency Plan. In turn they are expected to advise the affected

traffic. HF congestion is likely. Communications should be kept to a necessary minimum. Unnecessary routing changes will not be issued. Other ATSU's will provide guidance as far as possible in the circumstances.

1.12.5 Contact information that may be used in the event of an emergency evacuation is described in Annex A.



PART 2. CONTINGENCY PROCEDURES WITHIN THE EUR-SAM CORRIDOR

The procedures described below are applicable in case of a total ATC services failure.

2.1 BEGINNING OF THE CONTINGENCY SITUATION

2.1.1 When a specific ACC of the EUR-SAM Corridor starts a contingency situation will proceed as follows:

- a) Will inform, by all its possible and quickest means, to its concern ACC's about its contingency situation, specifying that the general contingency procedures of the EUR-SAM Corridor and the specific contingency procedures reflected in the contingency annex to its LOAs are in force.
- b) Will inform to its collateral ACC's about the real situation of the air traffic under its responsibility, as well as the information about the estimated traffic at the moment that the contingency situation started.

2.1.2 A common NOTAM notifying the contingency situation in the EUR-SAM Corridor will be published by the ACC in a contingency situation as well as by the rest of ACC's of the Corridor. This common NOTAM will refer to the published AIC concerning the EUR/SAM Contingency Plan and indicates relevant procedures to be applied. A model of this common NOTAM is specified in Annex B.

2.1.3 Each ACC of the EUR-SAM Corridor, shall broadcast via ground/air published VHF/ HF frequencies the contingency situation experienced in the specific ACC to all the air traffic under its responsibility. This broadcast should also include the details about the applicable contingency procedures.

2.1.4 Online meetings between the 4 FIRs to coordinate the contingency situation can be initiated by any ACC at any time.

2.2 CONTINGENCY ATS ROUTES OF THE EUR-SAM CORRIDOR

2.2.1 In the event of an ATS contingency situation of one specific ACC of the EUR-SAM Corridor, the air traffic will be allocated with the restricted use of flight levels and routes directionality as it is described hereafter. The operational procedures applicable between the ACC in contingency and its collateral at the moment that the contingency situation begins will be specified in the contingency annex to the LoA's between both ACC's. This contingency annex must be in accordance with these general procedures.

2.2.2 Southbound and Northbound

2.2.2.1 Aircraft from Europe via Canarias (Spain) / Sal Oceanic (Cape Verde) / Dakar Oceanic (Senegal) and Atlántico (Brazil) Flight Information Regions to South America will be guided through the ATS route network of the FIR, according to the following:

	ROUTE	ROUTE DESCRIPTION	FLAS	REMARKS
a	UN741	NELSO – ROSTA – NORED – EDUMO – GAMBA – KEPAS – PINRU – NANIK – DIKEB – PUNON – CARVE – JOBER	All Flight Levels, except FL310 and FL320	UN741 continues to be a uni-directional route SOUTH bound .
b	UN866	ARTIG – SAKSI – OBKUT – DEKON – BUXON – NELTO – AMDOL – IRANI – TENPA – USOTI – APASO – ORVEK –	All Flight Levels, except FL310 and FL320	UN866 to be uni-directional route NORTH bound only during

	ROUTE	ROUTE DESCRIPTION	FLAS	REMARKS
		GOMER – BRICK – GURKA – KONBA – OSDIV – KUBIL – BEXAL		contingency situations.
c	UN873	BAROK – BENTU – ABITIR – MITLA – SAMAR – GDV – LOMAS – ODEGI – UDATI – LIMAL – ISOKA – IPERA – PISPU – CVS – POMAT – SADBA – ASEBA – TASIL – ORARO – SALPU – INTOL – VUNOK	All Flight Levels, except FL310 and FL320	UN873 to be a uni-directional route SOUTH bound only during contingency situations.
d	UN857	UTRAM – NEURA – PUGUN – KOPDU – ERETU – GAKAS – DELAX – BOTNO – OPADU – UGAMA – GUNET – ETIBA – BIPET – DEREV – LZR – TERTO – VEDOD – TOVRA – ERMED – IBALU – ABODA – KORNO	All Flight Levels, except FL310 and FL320	UN857 to be a uni-directional route NORTH bound only during contingency situations.
e	UL206	BUGAT – KUGRO – ARUNU – BUTAP – KODOS – TULUP	All Flight Levels, except FL310 and FL320 (reserved for crossing traffic)	SOUTH bound: all Even Flight Levels accepted, except FL320. NORTH bound: all Odd Flight Levels accepted, except FL310

2.2.3 Westbound and Eastbound

2.2.3.1 Aircraft routing **westbound** crossing the EUR-SAM CORRIDOR will be guided through the ATS route network of the FIR, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Westbound	UL375*	UL375 - ETAXO – Siset – LOKIM - ISUPA – ETIMO – UDIGA – ARUNU – DIGOR – PUGSA – BODAK – ORARO – OBKUT – DIKEB – MOTBU – EGIMI – ARUSI <i>* ATS route has to be reactivated and will potentially be available in 2025</i>	FL320
Westbound	UL435	IRELA– POKSI – PINRU – BUXON – ASEBA – IRAKU – GAKAS – BUVUK	FL320

2.2.3.2 Aircraft routing **eastbound** crossing the EUR-SAM CORRIDOR will be guided through the ATS route network of the FIR, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Eastbound	UL375*	ARUSI – EGIMI – MOTBU – DIKEB – OBKUT – ORARO – BODAK – PUGSA – DIGOR – ARUNU	FL310

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
		<p>– UDIGA – ETIMO – ISUPA – LOKIM – Siset – ETAXO – UL375</p> <p><i>* ATS route has to be reactivated and will potentially be available in 2025</i></p>	
Eastbound	UL435	<p>BUVUK – GAKAS – IRAKU – ASEBA – BUXON – PINRU – POKSI – IRELA</p>	FL310

2.3 CONTINGENCY LONGITUDINAL SEPARATION MINIMA

2.3.1.1 The contingency longitudinal separation minima in the EUR/SAM corridor is **15 minutes** with Mach number technique (MNT).

2.3.1.2 After the contingency airspace is flown, the adjacent ACC can resume to the normal separation minima (10 minutes with Mach number technique MNT).

2.4 END OF CONTINGENCY PROCEDURES

2.4.1.1 As soon as the reason that caused the contingency situation is solved, the in contingency ACC will inform, by all it's possible and quickest means, to its concern ACC's about the end of the contingency situation.

2.4.1.2 A NOTAM notifying the end of the contingency situation in the EUR-SAM Corridor will be published by the ACC that was in a contingency situation as well as by the rest of ACCs of the Corridor.

2.4.1.3 In the aim to get a safely and orderly transition from the contingency situation to the normal situation, flow control restriction measures could be applied.

2.4.1.4 If the recovery from the contingency situation is only partial, but enough to reduce the air traffic restrictions, the in contingency ACC will issue a NOTAM informing about the new situation. In close coordination with its collateral ACCs, new traffic transfer conditions could be agreed.

PART 3. CONTINGENCY PROCEDURES FOR THE SOUTH ATLANTIC AIRSPACE**3.1 ROUTING TO/FROM DAKAR FIR FROM/TO ATLÂNTICO OCEANIC FIR (AORRA)**

3.1.1 Aircraft going to/from Dakar FIR from/to Atlântico Oceanic FIR will be guided through this specific bi-directional route in AORRA airspace, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Bi-directional	ROUTE	UL206-BUGAT-KODOS-TURUP-UA302	SOUTH bound: all Even Flight Levels accepted, except FL320. NORTH bound: all Odd Flight Levels accepted, except FL310
DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Bi-directional	ROUTE	UA572-TIVOD-ASDOK-EGUPA-UDIGA-BILUX-EMTUP-DESEX-GILRU- UL330	SOUTH bound: all Even Flight Levels accepted, except FL320. NORTH bound: all Odd Flight Levels accepted, except FL310
DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Bi-directional	ROUTE	UN548-GARUP-VODSA-TURAB-MELEM - ISUPA-DAGAM-ANPIR-ATANI-ARLEM-IPEKA-UA560-INAKA	SOUTH bound: all Even Flight Levels accepted, except FL320. NORTH bound: all Odd Flight Levels accepted, except FL310
DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Bi-directional	ROUTE	UG433-TUROT-SERIM-ASANU-ETIMO-VADAD-ONSEK-GUSOD-USAKA-UN401	SOUTH bound: all Even Flight Levels accepted, except FL320. NORTH bound: all Odd Flight Levels accepted, except FL310

3.2 ROUTING FROM/TO ATLÂNTICO OCEANIC TO/FROM ABIDJAN AND ACCRA FIRS

3.2.1 Aircraft going from Atlântico Oceanic to Abidjan FIR and Accra FIR will be guided through a specific **bi-directional** contingency route, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Westbound	UR560 (CR1)	<i>INAKA - LISOR- ACC</i>	FL340 and FL380
Eastbound	UR560 (CR1)	<i>ACC – LISOR - INAKA</i>	FL290, FL330 and FL370

3.2.2 Aircraft going from Atlântico Oceanic to Abidjan FIR and Accra FIR will be guided through a new **bi-directional** contingency route, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Westbound	new ROUTE (CR9)	03° 14' 05S - 002° 57' 46W - INOSA -EBULI	FL340 and FL380
Eastbound	new ROUTE (CR9)	EBULI – INOSA - 03° 14' 05S - 002° 57' 46W	FL290, FL330 and FL370
Westbound	new ROUTE (CR10)	New contingency route with additional waypoints every 5 degrees, connecting to UZ48 OBKOL - TOSIV	SOUTH bound: all Even Flight Levels accepted, except FL320. NORTH bound: all Odd Flight Levels accepted, except FL310
Eastbound	new ROUTE (CR10)	From UZ48 OBKOL - TOSIV new contingency route with additional waypoints every 5 degrees,	SOUTH bound: all Even Flight Levels accepted, except FL320. NORTH bound: all Odd Flight Levels accepted, except FL310

3.3 ROUTING FROM/TO LUANDA FIC OCEANIC FIR TO/FROM SOUTH AMERICA VIA ATLÂNTICO (BRAZIL)

3.3.1 Aircraft **westbound** from Luanda FIC Oceanic FIR to South America via Atlântico (Brazil) will be guided through the ATS route network of the FIR, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Westbound	UL340	<i>ONTAR – BOSNI - ITPIK – AVIGI – EGOLI - EGNOS - APRAS – BUTOG - ILGER – ROGOM – TEKIR – PAKAR – DADOT – AKVET – EKALO – TENIG – LOBIK – KIGOL.</i>	All Even Flight Levels, except FL320

3.3.2 Aircraft routing **eastbound** from South America via Atlántico (Brazil) to Luanda FIC Oceanic FIR will be guided through the ATS route network of the FIR, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Eastbound	UL340	<i>KIGOL – TENIG – EKALO – AKVET – DADOT – PAKAR – TEKIR – ROGOM - ILGER – BUTOG - APRAS -- EGNOS - – EGOLI -- AVIGI -- ITPIK – BOSNI – ONTAR</i>	All Odd Flight Levels, except FL310

3.4 ROUTING FROM/TO SOUTH AMERICA VIA ATLÁNTICO (BRAZIL) TO/FROM JOHANNESBURG OCEANIC FIR

3.4.1 Aircraft **eastbound** from South America via Atlántico (Brazil) to Johannesburg Oceanic FIR will be guided through the ATS route network of the FIR, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Eastbound	UL224	<i>VULGO – ROKAD - CIDER - KUMED – GELIR – RONER – PUGPA - ITGIV – GERAM – ETULA - ITMEK</i>	All Odd Flight Levels

3.4.2 Aircraft going **westbound** from Johannesburg Oceanic FIR to South America via Atlántico will be guided through the ATS route network of the FIR, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Westbound	UL224	<i>ITMEK – ETULA – GERAM – ITGIV – PUGPA – RONER – GELIR – KUMED - CIDER – ROKAD.</i>	All Even Flight Levels

3.5 ROUTING FROM/TO EZEIZA FIR VIA JOHANNESBURG OCEANIC TO/FROM CAPE TOWN FIR

3.5.1 Aircraft going **eastbound** from Ezeiza FIR via Johannesburg Oceanic to Cape Town FIR will be guided through the ATS route network of the FIR, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Eastbound	UL211	<i>PAGAD – ANKOK – KILOS – KAKIN – KETIS – MORSI - MUNES – EKBED – ANTES - ITLIK - APKIN</i>	FL270 or FL370

3.5.2 Aircraft going **westbound** from Cape Town FIR via Johannesburg Oceanic to Ezeiza FIR will be guided through the ATS route network, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Westbound	UL211	<i>APKIN – ITLIK – ANTES – EKBED – MUNES – MORSI – KETIS – KAKIN – KILOS – ANKOK - PAGAD</i>	FL320

3.6 ROUTING FROM/TO AMAZÔNICO FIR VIA ATLÂNTICO OCEANIC TO/FROM CAYENNE FIR

3.6.1 Aircraft going **northbound** from Amazônico FIR via Atlântico Oceanic to Cayenne FIR will be guided through this specific random route , according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Northbound	RANDOM ROUTE	<i>REGAM DCT MAVKO DCT GOGSO</i>	FL350 and FL390
Northbound	RANDOM ROUTE	<i>NISKI DCT DIMAS DCT CYR DCT KONTI DCT BISUK</i>	FL330 and FL350
Northbound	RANDOM ROUTE	<i>BOKUB DCT KOTVO DCT PUBLI</i>	FL330 and FL370

3.6.2 Aircraft going **southbound** from Cayenne FIR via Atlântico Oceanic to Amazônico FIR will be guided through this specific random route, according to the following:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS
Southbound	RANDOM ROUTE	<i>GOGSO DCT MAVKO DCT REGAM</i>	FL300 and FL360
Southbound	RANDOM ROUTE	<i>BISUK DCT KONTI DCT CYR DCT DIMAS DCT NISKI</i>	FL340 and FL360
Southbound	RANDOM ROUTE	<i>PUBLI DCT KOTVO DCT BOKUB</i>	FL340 and FL380

3.7 ROBERTS FIR

3.7.1 As per AIP Supplement S74/11 ATM CONTINGENCY PLAN ROBERTS FIR paragraph 3.2 – “The system of Contingency Routes is not required in the Roberts FIR”.

3.8 DISRUPTION OF ATS WITHIN ACCRA FIR

3.8.1 According to the AFI contingency Plan, the following routes are established as contingency routes with Abidjan UTA in the event of disruption of air traffic services within the Accra FIR, aircraft operators should file flight plans using alternative contingency routes listed as shown below:

	ROUTE	DESCRIPTION	FLAS WESTBOUND	FLAS EASTBOUND
CR1	UA560	INAKA - ACC	320, 340,380	290,330,370
CR4	UB600	AFO - ACC	220,260,320,340	210,250,330,350
CR6	UR979	SESIG - INOSA	280,300,360,400	310,350,390,410
CR7	UR991	EMTAL - GAPEL	280,300,360,400	310,350,390,410
CR8	UG853	RASAD - TERBA	280,300,360,400	310,350,390,410
CR9	NEW ROUTE	03°14'05S 002°57'46W- INOSA -EBULI	320, 340,380	290,330,370

3.9 IN CASE OF DISRUPTION OF ATS WITHIN ABIDJAN UTA

3.9.1 In accordance with the ASECNA AIP for CÔTE D'IVOIRE (ENR 1.8-1), In the event of disruption of air traffic services within ABIDJAN UTA, aircraft operators should file flight plans using alternative contingency routes listed in the scheme below:

Routes Code	Routes name	FIRs involved	Flight Levels assignment	Entry/Exit point
DKCR9	UB 600	Roberts FIR	Eastbound: FL270 - FL330 - FL390 Westbound: FL260 - FL300 - FL380	AD/MEGOT
DKCR10	UB 600	Accra FIR	Eastbound: FL270-FL330-FL390 Westbound FL260 - FL300 - FL380	AD/ ONESI
DKCR11	UG 851	Dakar FIR Bamako ACC	Southbound: FL270 - FL310 - FL370 Northbound: FL260 - FL280 - FL340 - FL360 - FL380 - FL400	GUREL/AD
DKCR18	UG 853	Roberts FIR	North-westbound:FL280 - FL340 - FL400 South-Eastbound: FL290 - FL310 - FL370	DEVLI/TESKI
		Accra FIR		TESKI/RASAD
DKCR19	UA 560	Roberts FIR	South-westbound: FL320 - FL340 - FL360 - FL380 North-Eastbound: FL290 - FL310 - FL370 - FL390	IPEKA/TESKI
		Accra FIR		TESKI/INAKA
DKCR20	UA 400	Accra FIR	Eastbound: FL370 - FL390 - FL410 Westbound: FL300 - FL320 - FL360 - FL400	AD/EGADU
DKCR21	UL 435	Dakar FIR	North-westbound: FL320 - FL340 - FL400 South-Eastbound: FL310 - FL330 - FL390 - FL410	ATANI/URAPI
		Accra FIR		
DKCR22	UA 614	Niamey FIR Ouagadougou ACC	Northbound: FL250 - FL290 - FL350 - FL370 - FL410 Southbound: FL280 - FL320 - FL360 - FL380	AD/BIGOM

Note: All ATS routes which are not included in the table above are temporarily unavailable.

3.10 CONTINGENCY OCEANIC ROUTE BETWEEN ACCRA FIR AND ABIDJAN FIR

3.10.1 Random Routing will be established with the following waypoints:

- a) AMPAN (04 00 00.00N 003 50 00.00E);
- b) RASAD (01 11 24.00N 003 00 00.00W); and
- c) EREGO (00 00 00.00 005 26 25.OOE).

3.10.2 A contingency route UR991 will be used between:

- a) EMTAL (04 45 06.00S 003 00 00.00W); and
- b) GAPEL (08 17 36.00S 000 19 00.00E).

3.10.3 Uni-directional routes will be established as RANDOM ROUTES:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS	REMARKS
Eastbound	Random Route	EMTAL- EREGO	FL350 and FL370	Direct Route
Westbound	Random Route	LIREX - RASAD	FL340 and FL360	Direct Route

3.10.4 Bi-directional Route UR991 will be established as follows:

DIRECTION	ROUTE	ROUTE DESCRIPTION	FLAS	REMARKS
Eastbound	UR991	EMTAL- GAPEL	FL310 and FL330	ATS Route
Westbound	UR991	GAPEL - EMTAL	FL300 and FL320	ATS Route

3.10.5 ATS Route UR991 in Oceanic Airspace which is supposed to be bi-directional will stand from EMTAL all the way through ARASO (02 00 00S-005 32 39W) to ARLEM (00 23 30N-007 44 42W) in Abidjan Oceanic Airspace. As a bi-directional ATS Route, it should be RVSM as well!

3.10.6 The Unidirectional Westbound route into Abidjan Oceanic Airspace should better be established from RASAD all the way to ATANI (03 26 12S-013 14 06W). The coordination has to be done with Dakar Oceanic.

3.10.7 The Unidirectional Eastbound route into Abidjan Oceanic Airspace should continue on from the Way Point (08 41 45S-009 58 50W) all the way to EMTAL and EREGO.



PART 4. SPECIFIC PROCEDURES WITHIN EACH FIR

4.1 PROCEDURES TO BE FOLLOWED BY CAPE TOWN, JOHANNESBURG AND JOHANNESBURG OCEANIC FIRs INCLUDING ADJACENT ATS UNITS

4.1.1 Cape Town, Johannesburg and Johannesburg Oceanic FIRs including adjacent ATS units will follow their emergency operating procedures and activate the appropriate level of contingency procedures in line with operational *Letters of Agreement and/or Letters of Procedures*.

4.1.2 These procedures shall include the following:

- a) The Cape Town, Johannesburg and Johannesburg Oceanic FIRs, on determining that air traffic services may be reduced due to a contingency event, will inform pilots accordingly. In the event of incapacitation of the operations room/building, the appropriate emergency procedures will apply and time permitting, controllers will make an emergency evacuation transmission on the radio frequency or frequencies in use providing pilots with alternate means of communication;
- b) During the period when the contingency procedures are in effect, flight plan messages must continue to be transmitted by operators to the Cape Town, Johannesburg and Johannesburg Oceanic FIRs via the AFTN using normal procedures;
- c) On notification of a contingency situation by State, ICAO or the appropriate alternate authority of an adjacent FIR, the ATS authorities operating the ACCs of the adjacent FIRs will activate the contingency procedures in accordance with their respective *Letters of Agreement and/or Letters of Procedures*;
- d) The adjacent APP/ACCs responsible for aircraft entering and transiting the Cape Town, Johannesburg and Johannesburg Oceanic FIRs must communicate to the concerned ATS units not less than 30 minutes beforehand, the estimated time over the respective Cape Town, Johannesburg and Johannesburg Oceanic FIR boundary entry points;
- e) The adjacent APP/ACCs responsible for aircraft entering the Cape Town, Johannesburg and Johannesburg Oceanic FIR will instruct pilots to maintain the last flight level assigned and speed (Mach number technique if applicable) or as per flight level allocation scheme in force while overflying the Cape Town, Johannesburg and Johannesburg Oceanic FIR;
- f) The adjacent APP/ACCs responsible for aircraft entering the Cape Town, Johannesburg and Johannesburg Oceanic FIR will not authorize any change in flight level or speed (Mach number technique, if applicable) later than 10 minutes before the aircraft enters the Cape Town, Johannesburg and Johannesburg Oceanic FIR, except in the case specified in (h) below;
- g) The adjacent ACCs responsible for aircraft entering the Cape Town, Johannesburg and Johannesburg Oceanic FIR will inform all aircraft, prior to entering the Cape Town, Johannesburg and Johannesburg Oceanic FIR, that they must communicate with the next (downstream) ATC unit at least 10 minutes before the estimated time over the Cape Town, Johannesburg and Johannesburg Oceanic FIR boundary exit points, or as may be agreed by the accepting ATS unit downstream; and
- h) Operators may also choose to route around the Cape Town, Johannesburg and Johannesburg Oceanic FIR, and the controlling authorities of the neighbouring FIRs concerned will provide alternative contingency routes as appropriate.

4.1.3 In the event of a public health emergency affecting Cape Town, Johannesburg and Johannesburg Oceanic FIR, Air Traffic Controllers will act in accordance with the (a) Appendix F to the contingency plan or (b) in the Airport Emergency Planning Manual (as the case may be), as well as other information and instructions provided by the competent civil aviation authority, in close coordination with public health emergency authorities.

Note 1: A mechanism should be established to coordinate information and instructions between the civil aviation authority, ATS units and public health emergency authorities in order to alleviate any ambiguity on the reporting structure between the three entities.

Note 2: ATS units should recognize that when closures of airspace or airports are promulgated, individual airlines might have different company requirements regarding alternative routing arrangements. In this regard, ATS units should endeavour to accommodate such requests within the confines of safety rules and procedures.

4.1.4 When FAJO experiences system failures such as loss of HF or loss of CPDLC or loss of both HF and CPDLC the following will apply:

4.1.4.1 **FAJO DEGRADED MODE 1:**

This is when HF becomes unserviceable while CPDLC is still working.

4.1.4.2 **FAJO DEGRADED MODE 2:**

This is when CPDLC becomes unserviceable while HF is working.

4.1.4.3 **FAJO DEGRADED MODE 3:**

This is when BOTH HF and CPDLC is not working.

4.1.5 **FAJO DEGRADED MODE 1: HF RX/TX UNSERVICEABLE WITH CPDLC SERVICEABLE**, When the HF receivers and or transmitters are unserviceable the following steps will be taken:

- a) NOTAM will be issued advising of HF unserviceability and that the primary communication mode is CPDLC. That Non-CPDLC aircraft must broadcast on frequency 126,9 MHz – TIBA/IFBP* procedures.
- b) Neighbouring FIRs will be informed that FAJO HF is unserviceable, and that the primary communication mode is CPDLC.
- c) If there is an aircraft (inbound or outbound) in the AORRA who only has HF and no CPDLC capabilities, that portion of the airspace will be downgraded to class G airspace. If this occurs another NOTAM will be generated downgrading that airspace.
- d) When HF is serviceable the NOTAM will be cancelled, and neighbouring FIRs will be advised.
- e) Antarctica flights: For aircraft flying South Bound from FACT area to Antarctica who are not CPDLC equipped and has HF only, A NOTAM will be issued downgrading the airspace to class G.

4.1.6 **FAJO DEGRADED MODE 2: CPDLC UNSERVICEABLE WITH HF SERVICEABLE**, When CPDLC is unserviceable – failure of the SITA online network, the following steps will be taken:

- a) A NOTAM will be issued indicating that CPDLC is unserviceable, and that the primary communication mode is now HF. The NOTAM will include all frequencies for FAJO HF.
- b) ATC will SELCAL all aircraft who were logged onto FAJO for ADS/CPDLC and advise of the CPDLC failure and inform aircraft that HF is now the primary communication mode.
- c) Airspace will remain class A.
- d) When CPDLC becomes serviceable the NOTAM will be cancelled and any aircraft within FAJO will be advised.

4.1.7 **DEGRADED MODE 3: CPDLC FAILURE AND HF FAILURE**, The following steps will be taken in the event BOTH CPDLC and HF are not working:

- a) A NOTAM will be issued with the following text:

NIL ATS DUE COM FAILURE. ADS-B EQUIPPED ACFT WILL BE MNT. ACFT OPR WI OCEANIC AIRSPACE TO FOLLOW TIBA/IFBP PROCEDURE ON 126.9 MHZ.*

- b) All neighbouring Oceanic sectors will be verbally informed of the situation.
- c) Inbound aircraft, still in comms with neighbouring FIRs – these neighbouring FIRs will be advised to provide a courtesy flight watch, this means that they must advise aircraft of the NOTAM and must advise the aircraft to remain on their HF frequency or remain logged onto their CPDLC, and that the aircraft must provide them ops normal calls every 30 minutes. The updated position reports with estimates and flight level must be passed to FAJO.
- d) The **CJOAOCG** (Cape Town, Johannesburg, and Oceanic ATM Operational Contingency Group) will be activated as part of convening of the South African Contingency Plan. The CJOAOCG will assess the situation and will provide further guidance on whether the airspace must be closed and what the contingency routes will be.

*Note *: The IATA Operational Notice regarding IFBP has been withdrawn on 31 December 2023. In the SAT airspace the TIBA procedures as described in ICAO Annex 11, Attachment B should be used as the preferred operating procedure during a contingency situation. Flights operating in the Johannesburg Oceanic FIR might still use IFBP in addition to TIBA until the South African AIP has been updated.*

4.2 CONTINGENCY PROCEDURES TO BE FOLLOWED IN THE WINDHOEK FIR

4.2.1 In the event of disruption of the ATC services provided by Windhoek ACC, contingency routes will be specified to ensure safety of flight and to facilitate limited flight operations commensurate with the prevailing conditions.

4.2.2 Existing ATS routes form the basis of the contingency routes to be used, and a flight level allocation scheme introduced to minimize potential points of conflict and to limit the number of aircraft operating simultaneously in the system under reduced air traffic services.

4.2.3 Contingency routes may be developed tactically by the AOCG and promulgated by NOTAM introduced as and when circumstances require, such as in the case of volcanic ash cloud, radioactive cloud or severe weather event.

4.2.4 As and where dictated by circumstances domestic flights and international flights that have not yet departed may be delayed until a full assessment of the prevailing conditions has been determined and sufficient air traffic services restored. A decision to curtail or restart domestic operations will be made by the CCC.

4.2.5 The ANS has the authority for the immediate tactical response to unexpected contingency situations, including where necessary the exclusion of flights from affected airspace during the transition to the contingency procedures in this plan.

4.2.6 Aircraft on long-haul international flights and special operations (e.g. Search and Rescue, State aircraft, humanitarian flights, etc), shall be afforded priority for levels at FL290 and above. Domestic and regional operators should plan on the basis that FL290 and above may not be available.

4.2.7 International operators affected by the suspension of all operations from Windhoek FIR airports will be notified by the relevant airport authority when Regional Contingency Plan Air Navigation Services ANS/AGM/13/06 –ATM Contingency Plan 01August 2020 CM/HR Page 42 of 55 operations may be resumed, and flight planning information will be made available pertaining to that airport. Aircraft operators need to be aware that CPDLC is currently (temporarily) deactivated in Windhoek FIR.

4.2.8 International flights who have received such approval may be required to flight plan via domestic routes to join international contingency routes. International operators may elect to avoid the Windhoek FIR by using ATS routes as coordinated with adjacent FIRs.

4.2.9 The following contingency routes may be activated on a tactical basis by the CCC and the adjacent Area Control Centres of FAJA, FBGR, FNAN, and FAJO will allocate only the contingency routes and flight levels specified as follows:

- a) CR2 (UL435) IBLOK-IXEPA-DETUX-UNLIL-BOPAN: BI-DIRECTIONAL EASTBOUND FL350/370/410 WESTBOUND FL300/320/380. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.
- b) CR3 (UN183) XORAK- XALVI-NIBEK: UNIDIRECTIONAL WESTBOUND FL300/320/380. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.
- c) CR4 NIBEK UN183-XALVI-UN181-GABSI: UNIDIRECTIONAL EASTBOUND FL350/370/410. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

Note: Pilots who have been assigned with a flight level not in accordance with the FLAS, should try to establish contact with the ATS unit responsible for the provision of service to clarify, and if unable, adjust to the FLAS as soon as possible once in the contingency airspace.

PART 5. STATE SPECIFIC CONTINGENCY PLANS

5.1 STATE CONTINGENCY PLANS

5.1.1 The following links will allow to access the individual State Contingency Plans:

- **Angola** - Luanda FIR
Currently not available online
- **Argentina** – Ezeiza, Comodoro Rivadavia FIRs
<http://ais.anac.gov.ar/aip>
ATS Contingency Plan - Refer to: ENR-1.15 Reglas y Procedimientos Generales - Plan de contingencia (ATS)
Contingency Routes - Refer to:
 - ENR-6.13 Cartas En-Ruta - Carta de navegación en ruta - Plan de contingencia para la República Argentina - Red simplificada de rutas ATS
 - ENR-6.14 Cartas En-Ruta - Carta de navegación en ruta - Plan de contingencia para la República Argentina - Red simplificada de rutas ATS - SUP
- **Brazil** – Recife, Amazonico, Atlántico FIRs
<https://aisweb.decea.mil.br/?i=publicacoes&p=aip>
Playbook of contingency routes
<https://aisweb.decea.mil.br/?i=espaco-aereo&p=playbook&tp=cont>
- **Cape Verde** - SAL
Currently not available online
- **French Guiana** – Cayenne FIR
<https://www.sia.aviation-civile.gouv.fr/> (Then click on "AIP", then "eAIP CAR SAM NAM", then the date of Currently Effective eAIP, then ENR 1.15)
- **Ghana** - Accra FIR
Currently not available online
- **Namibia** – Windhoek FIR
<http://www.ncaa.com.na/index.php/document-downloads/other-categories/ansp/ncaa-ans-contingency-plan-01-aug-2020/viewdocument/548>
- **Roberts FIR**
- **Senegal** – Dakar UTA:
<https://contingency.asecna.aero/>
- **South Africa** – FAJO/Johannesburg/Cape Town FIRs
https://caasanwebsitestorage.blob.core.windows.net/shared-documents/SA_CP_2020_08_25_v7.pdf
- **Spain** – Canarias FIR
: https://aip.enaire.es/AIP/contenido_AIP/ENR/LE_ENR_2_3_en.pdf
- **Trinidad and Tobago, PIARCO FIR**

- **Uruguay** – Montevideo FIR
<https://dinacia.gub.uy/sites/default/files/aip/2024-01/Enr1.pdf>
Specific ENR 1.15
-

APPENDIX A – CONTACT DETAILS**BRAZIL**

Name of agency:	Department of Airspace Control - DECEA.
Contact person:	ATLANTICO SBAO
Telephone:	+55 81 2129-8185 , +55 81 2129-8388 , +55 81 3343-8193, +55 81 3343-8214
REDDIG	3878 - 3879
AFTN:	SBAOZQZX- SBRJZPZX
E-mail:	

The national contingency unit that will normally liaise through the ICAO Regional Office of accreditation will be:

Name of agency:	Department of Airspace Control - DECEA.
Contact person:	Air Navigation Management Centre (CGNA)
Telephone:	+55 21 2101-6449, +55 21 2101-6409
REDDIG	3058
Fax:	+55 21 2101-6504
E-mail:	genac@cgna.gov.br

SPAIN

Name of agency:	ENAIRE
Contact person:	Eduardo Ortuno Villapalos (GCCC Operations Manager)
Telephone:	+34928577060
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E-mail:	EJOrtuno@enaire.es
AFTN:	GCCCZGZX
SITA:	LPAFOYA

CAPE VERDE

Name of agency:	Aeroportos e Segurança Aérea (ASA)
Contact person:	Margarett da Graca
Telephone:	+238 241 13 72/241 92 00
Mobile:	+238 992 7514
Fax:	+238 241 33 36
E-mail:	margarett.marques@asa.cv
AFTN:	GVACFDPX
SITA:	NIL

Name of Office:	Aeroportos e Segurança Aérea (ASA)
Contact person:	Adilson Vaz
Telephone:	+238 241 13 72/241 92 00
Mobile:	+238 981 0844
Fax:	+238 241 33 36
E-mail:	adilson.vaz@asa.cv
AFTN:	GVACFDPX
SITA:	NIL

ASECNA**DAKAR OCEANIC**

Name of agency:	Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar (A.S.E.C.N.A)
Contact person:	Mamour DIOUF
Telephone:	+221 33 869 22 31
Mobile:	+221. 77 231 59 20 /76 388 60 61
Fax:	+221 33 820 06 56
E-mail:	dioufmam1@asecna.org
AFTN:	GOOOZIZX
SITA:	GOOYFDPA

DAKAR OCEANIC: Airspace managed by Abidjan ACC

Name of agency:	Agence pour la Sécurité de la Navigation Aérienne en Afrique et à Madagascar (A.S.E.C.N.A)
Contact person:	ABY spouse DJIA Mi Fernande Jocelyne
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Mobile:	+225. 05 465 296 39 /07 781 130 88
Fax:	NIL
E-mail:	abyepsedjiamifer@asecna.org
AFTN:	DIIZQZX/DIIZIZX/DIIFDPA
SITA:	DIAPFDPA

During a contingency situation, ASECNA will liaise with the involved Flight Information Regions through the ICAO SAM, ICAO WACAF, ICAO ESAF and ICAO EUR/NAT Regional Offices.

ROBERTS FIR (Guinea Conakry, Liberia and Sierra Leone)

Name of agency:	Roberts Flight Information Region
Contact person:	Alimamy D. Conteh
Telephone:	+231 6 887160
E-mail:	calimamydixon@yahoo.com; adconteh@hotmail.com
AFTN:	GLRBYNYX; GLRBZQZX
SITA:	NIL

GHANA

Name of agency:	GHANA CIVIL AVIATION AUTHORITY – AIR NAVIGATION SERVICES - ACCRA FIR
Contact person:	KENNEDY BLEGE
Telephone:	+233 302 762703, +233 302 773283
Mobile:	+233 208 783826
Fax:	+233 302 773293
E-mail:	kblege@caa.com.gh
AFTN:	DGACZRZX, DGACZQZX, DGACFPLX
SITA:	DGACFAYA

ANGOLA

Name of agency:	ENNA EP
Contact person:	José Agostinho Gonçalves
Telephone:	
Mobile:	+244 945842542
Fax:	
E-mail:	jose.goncalves@enna.co.ao
AFTN:	FNLUZQZX
SITA:	

Contingency Coordinating Committee (CCC)

The CCC shall oversee the conduct and activation of the Contingency Plan in the event that ATS within the Luanda FIR is disrupted for an extended period and, the restoration of service or the diversion of traffic around the Luanda FIR in the event of total airspace closure.

Name of Office:	Contingency Coordinating Committee (CCC)
Contact person:	Celso Ludgero Amaro Gaspar
Mobile:	+244 923 325 578
Fax:	
Email:	celso.gaspar@enna.co.ao
AFTN:	FNLUZQZX

In the event of Angola declaring contingency, the CCC will advise the Contingency Units within neighbouring FIR's as per Letter of Procedure.

NAMIBIA

Name of agency:	Namibia Civil Aviation Authority – Air Navigation Services
Contact person:	Jeremia I. Kamati
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Fax:	+264 61 702 099
E-mail:	kamatij@ncaa.na / sm-atm@ncaa.na.
AFTN:	FYWFYFYX / FYWFFDMS/FYWFFDPO
SITA:	WDHATYA

Contingency Coordinating Committee (CCC)

The CCC shall oversee the conduct and activation of the Contingency Plan in the event that ATS within the Windhoek FIR is disrupted for an extended period, and the restoration of service or the diversion of traffic around the Windhoek FIR in the event of total airspace closure.

Name of Office:	Contingency Coordinating Committee (CCC)
Contact person:	Hilma Leonard
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Fax:	+264 61 702 088
E-mail:	leonardh@ncaa.na / hans@ncaa.na
AFTN:	FYWFYFYX / FYWFFDMS/FYWFFDPO
SITA:	WDHATYA

In the event of Namibia declaring contingency, the CCC will advise the following ICAO ESAF Regional office representatives and Contingency Units within neighbouring FIR's as per Letter of Procedure.

SOUTH AFRICA

Name of agency:	Air Traffic & Navigation Services (ATNS) PTY LTD.
Contact person:	Martin Cooper
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Central Airspace Management Unit

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In the event of the Republic of South Africa declaring contingency, the CAMU will advise the involved ICAO Regional Offices and Contingency Units within neighbouring FIR's as per Letter of Procedure.

During a contingency situation, the respective National Contingency units shall liaise with the Flight Information Regions involved through the ICAO SAM, ICAO WACAF, ICAO ESAF and ICAO EUR/NAT Regional Offices.

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ICAO

ICAO

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EUROCONTROL

EUROCONTROL

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APPENDIX B – NOTAM TEMPLATES

COMMON NOTAM TEMPLATE FOR THE EUR/SAM CORRIDOR

Priority indicator: SS

Contingency Situation in xxxx (Specify FIR)

The EUR/SAM corridor Contingency ATS Plan has been activated. All operators are requested to refer to xxx (specify AIC n°) dealing with EUR/SAM Corridor Contingency Plan procedure.

Pilots must adhere to the following general procedures when flying xxx (Specify FIR):

- Remain in permanent contact on the pilot-to-pilot frequency 123.45.
- Report positions or estimates and the beginning and the end of the climb/descent phases.
- Maintain watch for conflicting traffic, both visually and by reference to ACAS.
- Turn on all aircraft exterior lights.
- Always keep the SSR transponder on.
- Perform all climb and descent phases on the right side of the route axis and apply the lateral deviation offset procedures, as specified for the EUR/SAM Corridor and published in the relevant AIC published by EUR/SAM Corridor States.

The EUR/SAM Corridor ATS routes network is available with the following restriction and flight level allocations:

- UN741 - Southbound only. All Flight levels available, except 310 and 320.
- UN866 - Northbound only. All Flight levels available, except 310 and 320.
- UN873 - Southbound only. All Flight levels available, except 310 and 320.
- UN857 - Northbound only. All Flight levels available, except 310 and 320.

Crossing traffic (East/West) Westbound FL320, Eastbound FL310.

All Random routes are suspended and will not be cleared during the contingency situation.

After overflying xxx (specify FIR) pilots may expect rerouting according to the established ATS Routes directionality and flight level scheme allocation.

NOTAM TEMPLATE FOR THE AORRA (Atlantic Ocean Random Routing Area)

Priority indicator: SS

Contingency Situation in xxxx (Specify FIR)

The Atlantic Ocean Random Routing Area (AORRA) Contingency ATS Plan has been activated. All operators are requested to refer to xxx (specify AIC n°) dealing with AORRA Contingency Plan procedure. It refers to all flights into AORRA airspace over the Atlántico, Accra, Dakar, Comodoro Rivadavia, Ezeiza, Johannesburg Oceanic, Luanda Oceanic and Montevideo FIRs.

Pilots must adhere to the following general procedures when flying xxx (Specify FIR):

- * Be in permanent contact via pilot-to-pilot frequency 123,45 Mhz.
- * Report positions or estimates and the beginning and the end of the climb/descent phases
- * Maintain watch of conflicting traffic, both visually and by reference to ACAS
- * Turn on all aircraft exterior lights
- * Keep the SSR transponder on all the time
- * Perform all climb and descend phases to the right side of the router axis and apply the lateral deviation offset procedures as specified for the AORRA and published in relevant AIC by AORRA States

All AORRA random routes are suspended. The routes listed below will be activated and they will be available with following restriction and flight level allocations:

1) From/to Dakar Oceanic FIR from/to Atlántico Oceanic FIR (South America)

*UL206/UA302: Bidirectional. (UL206) BUGAT – KODOS – TURUP (UA302) All Even Flight Levels, except FL320 for Westbound. All Odd Flight Levels, except FL310 for Eastbound.

*UA572/UL330: Bidirectional. (UL330) GILRU – DESEX – EMTUP – BILUX – UDIGA – EGUPA – ASDOK – TIVOD (UA572). All Even Flight Levels, except FL320 for Westbound. All Odd Flight Levels, except FL310 for Eastbound.

*UN401/UG433: Bidirectional. (UN401) USAKA – GUSOD – ONSEK – VADAD – ETIMO – ASANU – SERIM – TUROT (UG433). All Even Flight Levels, except FL320 for Westbound. All Odd Flight Levels, except FL310 for Eastbound.

*UN548/UA560: Bidirectional. (UN548) GARUP – VODSA – TURAB – MELEM – ISUPA – DAGAM – ANPIR – ATANI – ARLEM – IPEKA – INAKA (UA560). All Even Flight Levels, except FL320 for Westbound. All Odd Flight Levels, except FL310 for Eastbound.

2) From/to Dakar oceanic FIR via Atlantico Oceanic to/from Abidjan FIR

*Direct Route: bidirectional. INAKA – METUS – KIPSA. FL380 or FL 400 for Westbound. FL390 or FL 410 for Eastbound.

*Direct Route: bidirectional. 03° 14' 05S 002° 57' 46W – INOSA – EBULI. FL380 or FL 400 for Westbound. FL390 or FL 410 for Eastbound.

3) From/to Luanda FIC Oceanic from/the Atlantico Oceanic FIR (South America)

*UL340: bidirectional. ONTAR – BOSNI – ITPIK – AVIGI – EGOLI – EGNOS – APRAS – BUTOG – ILGER – ROGOM – TEKIR – PAKAR – DADOT – AKVET – EKALO – TENIG – LOBIK – KIGOL. All Even Flight Levels, except FL320 for Westbound. All Odd Flight Levels, except FL310 for Eastbound.

- 4) From/to Johannesburg Oceanic from/to Atlântico Oceanic FIR (South America)

*UL224: bidirectional. ITMEK – ETULA – GERAM – ITGIV – PUPGA – ROMER – GELIR – KUMED – CIDER – ROKAD. All Even Flight Levels, except FL320 for Westbound. All Odd Flight Levels, except FL310 for Eastbound.

- 5) From/to Ezeiza FIR via Johannesburg Oceanic to/from Cape Town FIR

*UL211: bidirectional. PAGAD – ANKOK – KILOS – KAKIN – KETIS – MORSI – MUNES – EKBED – ANTES – ITLIK – APKIN. FL 270 or F370 for Eastbound. Only FL 320 for westbound.

All Random routes are suspended and will not be authorized during the contingency situation. After over flying xxx (Specify FIR) pilots may expect rerouting to established ATS Routes directionality and flight level scheme allocation. Additional information can be obtained from SAT Doc 002 (SAT Contingency Plan)

— END —