NAMIBIA CIVIL AVIATION AUTHORITY
AIR NAVIGATION SERVICES

NAMIBIA CIVIL AVIATION AUTHORITY

AIR NAVIGATION SERVICES REGIONAL CONTINGENCY PLAN

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FOREWORD

The convention on International Civil Aviation, Annex 11, Air Traffic Services, Chapter 2.30(amendment 46) states inter alia that, "*air traffic services authorities shall develop and promulgate contingency plans for implementation in the event of disruption, or potential disruption, of air traffic services and related supporting services in the airspace for which they are responsible for the provision of such services*".

This provision is further explained in attachment C to Annex 11, chapter 2.30(amendment 46) which provides inter-alia that, "*contingency plans are intended to provide alternative facilities and services to those provided for in the regional air navigation plan when those facilities and services are temporarily not available*". Contingency arrangements are therefore temporary in nature.

The Namibia Civil Aviation Authority Air Navigation Services Contingency Plan as described in this document addresses the closure or severe disruption of Air Traffic Services within the Windhoek FIR. Disruptions and/or limitations of services provided at individual units, affecting only limited portions of airspace within the Windhoek FIR, is detailed in each unit's Station Standing Instructions and not addressed in this plan. Where threats of a common nature can be found universal to all units providing a service, such threats and subsequent action is captured as part of this plan.

Not all situations can be foreseen. In addition, no two situations will be the same and so no Emergency or Contingency plan can cater for every eventuality. Through taking realistic events into consideration and the possible impact on services, this plan is put in place to mitigate as far as practical those events that may have a severe impact on Air Navigation Services operations and the Namibian FIR.

This Contingency plan is authorised by the Executive Director, Namibia Civil Aviation Authority.

This Contingency Plan will come into effect after it has been endorsed by the Namibia Civil Aviation Authority, which is the regulatory authority responsible for civil aviation operations in Namibia.
This plan has been developed in coordination with Namibia Civil Aviation stakeholders and in close co-operation and collaboration with the Air navigation Service providers (ANSPs) responsible for the adjacent FIRs.

Arrangements have been made with civil aviation authorities responsible for adjacent airspaces, and action on their part in the event of activation of the plan will be in accordance with operational Letter of Agreement (LOAs) established between Namibia (ATS) and adjacent States concerned.

Aircraft flying through the Windhoek FIR during activation and operation of the Namibia Contingency Plan are expected to comply with the requirements of this Plan and to cooperate with other airspace users as necessary for continued safety of air navigation.

The plan will be activated by promulgation of a NOTAM issued by Namibia Aeronautical Information Management () well in advance as far as practicable.

Proposed amendments to this plan shall be forwarded to:

THE Namibia Civil Aviation Authority: Executive Director
Private bag 12003
Windhoek
Namibia

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DOCUMENT APPROVAL

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RECORD OF AMENDMENTS

Amendments to the Contingency Plan shall be done by M: ATS Windhoek and staff shall be notified of such changes by means of an Operational Memorandum. Amendments will be indicated by a solid line in the left-hand margin. Hand amendments shall be accompanied by signature by the M:ATS Windhoek and such amendments shall be incorporated into the document February of each year, unless urgent changes are required in which event a revised version of the ANS Contingency plan shall be distributed. M: ATS Windhoek shall notify and distribute any amendments to the copy holders as indicated in this document's Distribution List.

No	Amendment	Effective Date	Date Entered	Effected Pages	Entered by
1	New Release	03 December 2019	12 September 2019	All	M: ATS Windhoek
2	Hand Amendment	09 February 2019	09 February 2019	23,24,37,41,42,47	M: ATS Windhoek
3	Edition 2	20 August 2020	13 July 2020	6,8,10,23,47	M: ATS Windhoek
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PART 1
DEFINITIONS AND ABREVIATIONS

When the following abbreviations and terms are used in the document, they have the following meanings:

ACC	Area Control Centre
AD	Air Defence
AOPA	Aircraft Owners and pilots Association
AFTN	Aeronautical Fixed Telecommunications Network
SM: ATS	Senior Manager Air Traffic Services
AIC	Aeronautical Information Circular
AIP	Aeronautical Information Publication
AIM	Aeronautical Information Management
ANS	Air Navigation Service
ANSP	Air Navigation Service Provider
AOP	Airport Operator
AoR	Area of Responsibility
ASM	Airspace Management
ATC	Air Traffic Control
ATCO	Air Traffic Control Officer
ATFCM	Air Traffic Flow and Capacity Management
ATM	Air Traffic Management
ATS	Air Traffic Service
ATSP	Air Traffic Service Provider
ATEL	Aeronautical telecommunication
AUP	Airspace Utilisation Plan
CAUA	Civil Activity Use of Airspace
CBA	Cross Border Area
CEO	Chief Executive Officer

Cflas	Contingency FL Allocation Scheme
CFMU	Central Flow Management Unit
CIA	Contingency Impact Assessment
CIDIN	Common ICAO Data Interchange Network
CM	Crisis Management
CMG	Crisis Management Group
CND	Cooperative Network Design
CR	Common Requirements
CRAM	Conditional Route Allocation Message
CTF	Contingency Task Force
CTR	Control Zone
ED	Executive Director of the NCAA
EDD	Electronic Data Display
FAB	Functional Airspace Block
FDM	Flight Data Management
FDP	Flight Data Processing
FIR	Flight Information Region
FL	Flight Level
FPL	Flight Plan
FUA	Flexible Use of Airspace
GAT	General Air Traffic
HANS	Head Air Navigation Services
HMI	Human Machine Interface
HR	Human Resources
IA	Impact assessment
ICAO	International Civil Aviation Organisation
LoA	Letter of Agreement
MET	Meteorological
MoT	Ministry of Transport

MoU	Memorandum of Understanding
MAPD	Maximum Agreed Period of Disruption
NCAA	Namibia Civil Aviation Authority
NMS	Namibia Meteorology Services (NMS)
NOTAM	Notice to Airmen
OAT	Operational Air Traffic
OCG	Operational Coordination Group
ODS	Operational Display
OPMET	Operational Meteorological (Information)
PAL	Procedure Assurance Level
RA	Risk Assessment
RE	Realistic Event
RVSM	Reduced Vertical Separation Minima
SecMS	Security Management System
SID	Standard Instrument Departure
SM	Safety Management
SMS	Safety Management System
SSP	State Safety Program
TAF	Terminal Area (Aerodrome) Forecast
TIBA	Traffic Information Broadcasts by Aircraft
TLS	Target Level of Safety
TMA	Terminal Manoeuvring Area
TWR	Tower (ATC)
UIR	Upper Information Region
VCS	Voice Communication System
WAFC	World Area Forecast Centre

Asset	Anything that has value to the organization. Any item of ATM infrastructure, intangible assets also include the reputation of an ANSP.
ATM Security	ATM security is concerned with those threats that are ed at the ATM System directly, such as attacks on ATM assets, or where ATM plays a key role in the prevention or response to threats ed at other parts of the aviation system (or national and international assets of high value) and limiting their effects on the overall ATM Network. ATM Security is a subset of Aviation Security which is itself a component of Transport Security.
Business Continuity	Process involved in ensuring continued service provision, typically after first 48 hours following any contingency. Strategic and tactical capability of the organization to plan for and respond to incidents and business disruptions in order to continue business operations at an acceptable pre-defined level.
Control	An action, device, procedure, or technique that reduces a risk by eliminating or preventing the threat, by minimizing the impact it can cause, or by discovering and reporting it so that corrective action can be taken. In ICT standards, controls include all actions or processes intended to reduce risk, including management, policy, organisation and operation.
Failure	The inability of any element of the Air Traffic Management System to perform its intended function or to perform it correctly within specified limits.

Hazard	The term "hazard" refers to any issue or condition that either on its own or in combination with others has the potential to create a safety concern.
Impact	The unwanted consequence of a security incident; the impact may be qualified in financial, opportunity, efficiency, safety or any other relevant business or ATM operational terms.
Information Security	Preservation of confidentiality, integrity and availability of information. Other properties, such as authenticity, accountability, non-repudiation, and reliability can also be involved.
Likelihood	The chance of something happening, whether defined, measured or estimated objectively or subjectively, or in terms of general descriptors (such as rare, unlikely, likely, almost certain), frequencies or mathematical probabilities.
Mitigation	Steps taken to control or prevent a hazard from causing harm and reduce risk to a tolerable (or risk mitigation) or acceptable level.
Occurrences	Accidents, serious incidents and incidents as well as other defects or malfunctioning of an aircraft, its equipment and any element of the Air Navigation System which is used or intended to be used for the purpose or in connection with the operation of an aircraft or with the provision of an air traffic management service or navigational aid to an aircraft.
Resilience	The ability of an organization to resist being affected by an incident.

Risk	The combination of the overall probability, or frequency of occurrence of a harmful effect induced by a hazard and the severity of that effect.
Risk Analysis	Systematic use of information to identify sources and to estimate the risk.
Risk Assessment	The overall process of risk identification, analysis and evaluation.
Risk Evaluation	Process of comparing the estimated risk against given risk criteria to determine the significance of the risk.
Risk Level	A single metric that expresses the overall risk of a particular threat. The risk elements of impact and frequency are often combined into a single metric in way that is justifiable in business terms; this allows the risks to a system to be ranked by sensitivity.
Risk Management	The structured development and application of management culture, policy, procedures and practices to the tasks of identifying, analysing, evaluating, and controlling risks.
Safety Management System	A systematic and explicit approach defining the activities by which safety management is under (SMS) taken by an organisation in order to achieve acceptable or tolerable safety.
Safety Monitoring	A systematic action conducted to detect changes affecting the ATM System with the specific objective of identifying that acceptable or tolerable safety can be met.
Safety Policy	A statement of the organisation's fundamental approach to achieve acceptable or tolerable safety.
Safety Requirement	A risk mitigation means, defined from the risk mitigation strategy that achieves a particular safety objective. Safety

	requirements may take various forms, including organisational, operational, procedural, functional, performance, and interoperability requirements or environment characteristics.
Security Management	The purpose of security management is to support the application of security policies by means of functions which include the creation, deletion and control of security services and mechanisms, the distribution of security-relevant information and the reporting of security-related events.
Threat	A potential cause of an unwanted incident, which may result in harm to a system or organization. It is a function of intention and capability.
Threat Agent	The source of a threat; may be a person, entity, or event, with or without malicious intent.
Vulnerability	A weakness of an asset or group of assets that can be exploited by one or more threats.

PART 2
CONTINGENCY PLAN MANAGEMENT
(AIR TRAFFIC SERVICE UNITS) ATSU'S

2.1 The ATM Contingency Plan for ATS units in the Windhoek FIR details arrangements to ensure the continued safety of air navigation in the event of partial or total disruption of ANS in the Windhoek FIR in accordance with ICAO Annex 11 — Air Traffic Services. The Contingency Plan provides the ANS procedures and contingency route structure using existing airways/routes, where practicable, in most cases that will allow aircraft operators to transit the Windhoek FIR during periods of limited or no ATS.

2.2 The contingency measures set out in this Plan are applicable in cases of unforeseeable events caused by unexpected interruptions in ATS through natural occurrences or other circumstances, which, in one way or another, may impair or totally disrupt the provision of ATS and/or of the related support services in the Windhoek FIR. In essence, reference is made to the disruption or total loss of the Windhoek ACC, closure of the entire Windhoek FIR or/and threats to airborne operational traffic inside the greater part of the Windhoek FIR.

2.3 It is recognized that the concept of contingency can be organised along a "Contingency Life Cycle" (*Figure 1*) composed of the following phases (*Reference EUROCONTROL Guidance on Contingency planning*):

2.3.1 Emergency Situation: 'Emergency' modes are those situations following unforeseen or sudden catastrophic events that may lead to potential unsafe situations and/or partial or full interruption of the ANS provision, therefore prompting an immediate response to contain the adverse impact and where feasible initiate recovery actions.

2.3.2 Degraded Mode of Operation: A reduced level of service invoked by equipment outage or malfunction, staff shortage or procedures becoming inadequate as a knock-on effect of one or several deficient system elements.

2.3.3 Service Continuity (SC): The availability of suitable arrangements allowing alternate ANS services of an agreed quality of service to be readily activated when a long-term disruption of normal service provision is anticipated. SC is also characterized by containing the impact and duration of disruption of ANS critical services and the ability to restore a defined service level (capacity) with due priority.

2.3.4 Recovery to Normal Operations: Transition back to Normal operations from any of the contingency modes of operation.

2.3.5 'Normal Operations' is included in the schematic for completeness, but 'Normal Operations' is not classified as a Contingency mode.

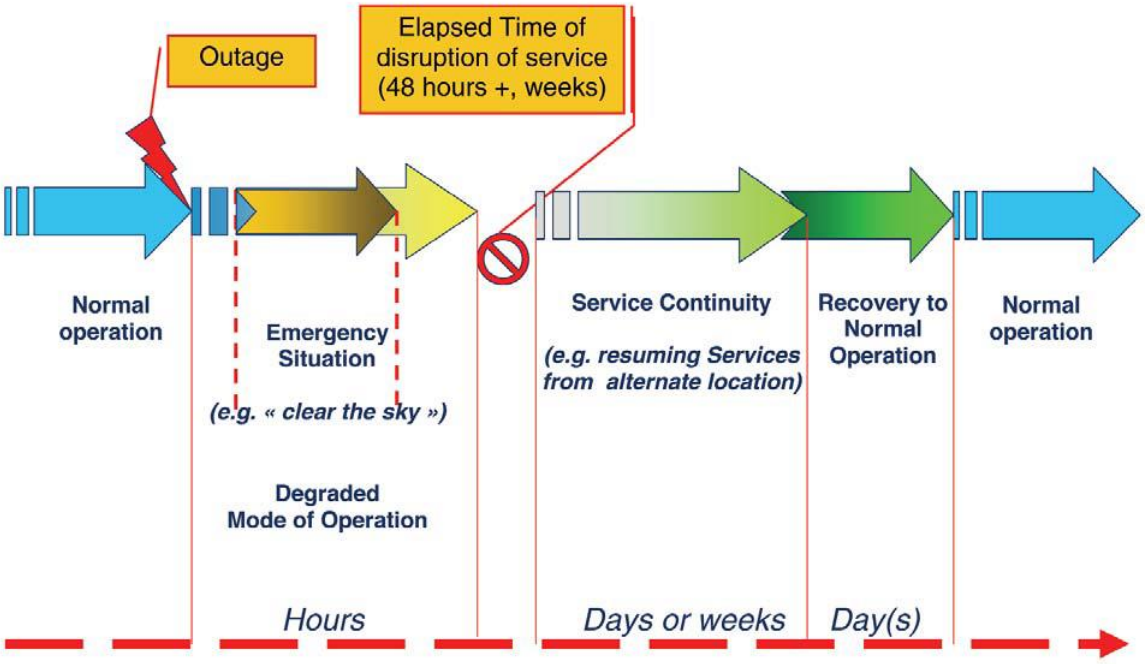

Figure 1 – Contingency Life Cycle

2.4 Throughout the Contingency Plan the Life Cycles are considered. This Life Cycle should not necessarily be understood as a sequence of modes of

operation. For instance, in certain circumstances depending on the cause/type of disruption;

2.4.1 A System (Technical, People and Procedures) working in 'Normal' operation can evolve directly into an "Emergency" situation;

2.4.2 or a System can deteriorate into a "Degraded mode of operation" that further evolves into an "Emergency" situation;

2.4.3 or an "Emergency situation" can be followed by a 'Service Continuity 'mode of operation;

2.4.4 or in some situations, it might be necessary to move straight from 'Normal' operation into a 'Service Continuity 'mode of operation.

2.5 Contingency Coordinating Committee (CCC)

2.5.1 The CCC shall oversee the conduct of the Contingency Plan and in the event, that ATS within the Windhoek FIR is disrupted for an extended period, make arrangements for and facilitate the temporary relocation of the service to the alternate centre/location and the restoration of service or the diversion of traffic around the Windhoek FIR in the event of total airspace closure.

2.5.2 Under the circumstances described, or when deemed necessary by HANS , as soon as practicable in advance of, or after the commencement of a contingency event causing disruption to the entire Windhoek FIR, the HANS shall convene the CCC, by the most expeditious means appropriate for the situation.

2.5.3 The CCC shall consist of;

- Regulatory Authority,
- Air Navigation Service Provider,
- Military Authority,
- Other Relevant National Authority/Disaster Management Centre
- Airspace Use Representatives
- Airport Authority

2.6 ATM Operational Contingency Group

2.6.1 The ATM Operational Contingency Group (AOCG) will be convened by the CCC with a primary responsibility to oversee the day to day operations under the contingency arrangements, and coordinate operational ATS activities, 24 hours a day, throughout the contingency period. The terms of reference of the AOCG will be determined by the CCC. The AOCG will include any necessary specialised personnel from the following disciplines:

- Air Traffic Control Services
- Aeronautical Meteorology
- Aeronautical Information Service (AIM)
- Aeronautical Telecommunication (ATEL)
- Military authority
- Airport Authority

2.6.2 Where other specialised expertise is required, for example NAMPOL, Armed Forces, Security or Regulatory, such expertise shall be consulted by the AOCG.

2.6.3 The mission of the AOCG shall include:

- Review and update of the Contingency Plan as required,
- Keep up to date at all times of the contingency situation,
- Organize contingency teams in each of the specialized areas,
- Keep in contact with and update the ICAO Regional Office, the IATA Regional Office and other airspace users;
- Exchange up-to-date information with the adjacent ATS authorities concerned to coordinate contingency activities;
- Notify the designated organizations of the contingency situation sufficiently in advance and/or as soon as possible thereafter;
- Take necessary action for issuing NOTAMs according to this plan or as otherwise determined by the particular contingency situation. Where the contingency

situation is sufficiently foreseeable the relevant NOTAMs will be issued 48 hours in advance of the contingency events.

2.7 Plan Testing and Review

2.7.1 The Plan shall be tested in desktop exercises, where necessary including telephone or web-based conference facilities, at least once per year.

2.7.2 ATC simulation testing of the plan should occur at least once per year, and whenever required by the HANS.

2.7.3 A full review of the Plan shall be conducted every three years or as required. Provisions for the review of airspace, ATS route, co-ordination and communications details of the Plan shall be included in relevant ATS airspace, data and facility implementation plans.

2.7.4 A preliminary post-activation review report shall be completed within 28 days following any testing, pre-activation, or activation of the Plan. A more comprehensive report shall be completed in any case where an air safety incident investigation related to the pre-activation or activation of the Plan has been conducted, or as otherwise determined the HANS.

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PART 3
CONTINGENCY SITUATIONS AFFECTING ANS FACILITIES

3.1 Objective

3.1.1 The 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 Navigation Services within the Windhoek FIR. This plan details both common procedures throughout the Windhoek FIR and the procedures specific to the Windhoek ACC. Due to the scope of the Windhoek ACC, i.e. disruption or limitations on the service and the direct and dramatic impact on the entire Windhoek FIR, this plan provides detailed action that will be taken.

3.1.2 ATS within the Windhoek FIR are provided from a number of geographical locations and this plan does not include details of the contingency arrangements at each of these facilities. It is considered unlikely that any physical contingency at one particular facility will affect another directly; hence this is included in the individual unit's Station Standing Instructions (SSI).

3.1.3 In the event that the Windhoek ACC is unable to provide a service, or, limited in the provision of a service due to technical reasons, the Windhoek ACC shall be moved to the backup ACC. The backup ACC is provided in the form of a co-located ATSU, off site or a distance away from the Windhoek ACC in Hosea Kutako control tower.

3.2 States and FIRs affected

3.2.1 This document contains contingency procedures for ANS who provides an ATC service within the Windhoek FIR, and those ANSPs whose airspace has a common boundary with the Windhoek FIR for which supporting procedures are either published or contained in Letters of Agreement.

3.2.2 The states, FIRs and ACCs affected by this contingency plan and for which procedures are promulgated are as follows:

3.2.2.1 Gaborone FIR

3.2.2.2 Johannesburg FIR

3.2.2.3 Luanda FIR

3.3 Notification Procedures

3.3.1 In the event that the Windhoek ACC is affected, or, where the larger part of the Windhoek FIR is either closed or a threat of such nature that it makes the airspace dangerous, activation of the Contingency Plan will be brought to the attention of the states/FIRs in paragraph 3.2.2 by the CCC or a person delegated by them.

3.3.2 In the event that an individual ATSU (excluding Windhoek ACC) is severely limited in the service it provides or is unable to provide a service, notification shall be done as per the Emergency Checklist and Contingency Plan contained in each unit's SSI.

3.3.3 Notification of this Contingency Plan will be done telephonically where this is possible and there-after via the AFTN in the form of a NOTAM. See Appendix E

3.3.4 Aforementioned NOTAM shall contain the following;

- Time and date of the beginning of the contingency measures;
- Airspace available for landing and overflying traffic and airspace to be avoided;
- Details of the facilities and services available or not available and any limits on ATS provision (e.g., ACC, APPROACH, TOWER and FIS),
    - including an expected date of restoration of services if available;
- Information on the provisions made for alternative services;
- Applicable ATS routes, AIP-published contingency routes, or tactically defined contingency routes and any changes to the ATS contingency routes contained in this Plan;

- Any special procedures to be followed by neighbouring ATS units not covered by this Plan;
- Any special procedures to be followed by pilots; and
- Any other details with respect to the disruption and actions being taken that aircraft operators may find useful.

3.4 Procedures for Limited Service and/or Availability of Airspace

3.4.1 Disruption of ground/air communication capability

3.4.2.1 In the event that ground/air communication at Windhoek ACC (inclusive of Area, APP and FIS positions) is disrupted, i.e. intermittent, ATS shall attempt to establish contact on frequency 121,50MHz and 130,30MHz where it is suspected that only operational frequencies are affected.

3.4.2.2 In the event that equipment failure is identified as the cause a decision shall be made, in consultation with ATEL, whether the ACC should be relocated to the backup ACC. Should repair of the faulty equipment not be immediate, the Contingency Plan shall be activated.

3.4.2.3 ATS shall refrain from vectoring traffic and shall as far as practical apply procedural separation until such time as communication has been restored to a serviceable state.

3.4.2.4 Pilots shall be alert to the fact that intermittent communication may lead to misunderstood instructions. Pilots shall confirm clearances, especially in respect of level changes should any uncertainty exist.

3.4.3 Failure of Surveillance Equipment

3.4.3.1 In the event that surveillance equipment fails, ATC shall revert to procedural control.

3.4.3.2 Where it is established that the failure is limited to the Windhoek ACC equipment/displays, the Contingency Plan shall be activated.

3.4.3.3 In the event that the surveillance equipment failure affects the fall-back ACC as well, ATC shall remain at the Windhoek ACC and a procedural service shall continue to be provided.

3.5 Procedures to be followed by FYWF FIR and Neighbouring FIR's.

3.5.1 In the event of no Air Traffic Service and/or closure of the Windhoek FIR or Loss of ground/air communication, the following procedures shall be followed:

3.5.1.1 In the event that ATC radio communication with flights is lost in total, the following action shall be taken;

a. Windhoek ACC: Activate Contingency Plan

b. Other ATSU: Activate unit specific action plans as stipulated in the respective SSI.

3.5.1.2 The Windhoek ACC shall immediately revert to the backup ACC, a process that will take a maximum period of 120 minutes (*referred to as an Outage*). During the Outage period the following shall be applicable (detailed ATC unit action is contained in the Windhoek Evacuation and Contingency plan);

a. Adjacent FIRs shall be notified by any means possible of the Contingency Plan being activated and said FIRs shall activate procedures as contained in their Letter of Agreements.

b. Hold all IFR departures for which release has not yet been obtained until the backup ACC has been manned and declared operational.

c. Operational traffic (arrivals) already airborne at the time of the Outage shall comply with the relevant Communication Failure procedures as published in the Namibia AIP.

3.5.2 Procedures to be followed by neighbouring FIR's

a. Filed flight plan messages shall continue to be transmitted via the AFTN as per normal procedure;
b. Transmit a current flight plan message, at least one hour before the aircraft's estimated arrival time over the relevant entry point for the Windhoek FIR;
c. Apply a longitudinal separation of at least 15 minutes over the relevant entry point of the Windhoek FIR, between aircraft flying at the same flight level and following the same contingency route and advise the respective pilot-in-command to maintain the flight level and the last Mach Number assigned, where provided, throughout the Windhoek FIR;

d. Not authorizing any flight level or Mach Number changes of any aircraft transiting through the Windhoek FIR, within a period of 10 minutes before the aircraft enters the Windhoek FIR;

e. Request each aircraft transiting through the Windhoek FIR to include in their position report, the estimated time of the aircraft over the relevant exit point of the Windhoek FIR, on the contingency ATS route being used. Pilots are to contact the next adjacent ACC as soon as possible, and at the latest, 10 minutes before the estimated time of arrival over the FIR boundary exit points of Windhoek FIR.

3.5.2.1 As soon as the backup Windhoek ACC has been declared operational ATC shall assume control of the airspace and establish communication with any traffic inside the Windhoek FIR.

3.5.3 Loss of ATS

3.5.3.1 It is recognized that some events may lead to no availability of ATS associated with the Windhoek ACC (Windhoek APP, Windhoek Area control and Windhoek FIS). Such total loss of ATS provided by Windhoek ACC may be due to industrial action, contagious disease etc. In such instances the utilization of the backup ACC may not be adequate in a continuation of services. That said, the risk that all of the ATSU in the Windhoek FIR being disrupted in total at the same time is highly unlikely to near impossible. This Contingency Plan

then only addresses events that may lead to the Windhoek ACC not being able to provide ATS.

3.5.3.2 In such an event, ATSUs in the Windhoek FIR shall coordinate directly with adjacent FIRs for flights departing for destinations outside of the Windhoek FIR. ATSU shall coordinate directly with ATSU within the Windhoek FIR in respect of arrivals and departures. Adjacent FIRs shall coordinate directly with ATSU inside the Windhoek FIR in respect of international arrivals and shall provide information on known traffic as per the applicable Letter of Agreements.

3.5.3.3 In the event that the outage cannot be resolved in a timely manner, the Executive Director: NCAA shall make executive decisions in respect of closure of the Windhoek FIR, should this be required.

3.5.4 Procedures to be followed by aircraft transiting Windhoek FIR

3.5.4.1 Pilots of aircraft operating in the Windhoek FIR during contingency operations shall comply with the following procedures

3.5.4.1.1 Pilots shall strictly adhere to the IATA In-flight Broadcast Procedures (IFBP), as published in the AIP;

3.5.4.1.2 To reach the appropriate flight level assigned by the competent adjacent ACCs of the Windhoek FIR at least 10 minutes before entering the Windhoek FIR;

3.5.4.1.3 Maintain during their entire flight time within the Windhoek FIR, the last flight level assigned to them by the competent adjacent ACC and in no way change the assigned flight level, including Mach Number, where assigned, except in cases of emergencies or for reasons of flight safety;

3.5.4.1.4 Report their positions when over compulsory reporting points for the ATS contingency route being flown;

3.5.4.1.5 Operate along or as close as possible to the centreline of the assigned ATS contingency route;

3.5.4.1.6 To display navigation and anti-collision lights at all times during their transit through the Windhoek FIR;

3.5.4.1.7 Pilots to maintain their own longitudinal separation of 15 minutes from preceding aircraft operating at the same cruising level on the same ATS contingency route;

3.5.4.1.8 To contact the next adjacent competent ACC as least 10 minutes before the estimated time of arrival over the relevant exit point of the Windhoek FIR;

3.5.4.1.9 Whenever an emergency or flight safety reasons make it impossible for an aircraft to maintain the last flight level assigned for the transit through the Windhoek FIR, it shall position itself at least 5NM to the right of the centreline of the contingency ATS route being flown before climbing or descending, but remaining within the Windhoek FIR and inform other aircraft being affected by broadcasting an emergency level change message on the *appropriate area frequency, as well as the* IFBP VHF frequency 126.9Mhz and emergency frequency 121.5 Mhz. The message shall contain the aircraft call sign, aircraft position, flight level being vacated or crossed and new intended flight level, *as well as direction of flight*.

3.5.4.1.10 Not all operational circumstances can be addressed by this Contingency Plan and pilots are to maintain a high level of alertness when operating in the contingency airspace and take appropriate action to ensure safety of flight.

3.5.4.2 IATA In- Flight Broadcast Procedure (IFBP)- AFI Region- as published in the AIP – Refer AIP ENR 1.8 Subsection 9

3.5.4.3 Filing of flight plans

Flight planning requirements detailed in Namibia AIP continue to apply during contingency operations, except where modified by the contingency ATS

routes and FLAS specified by ATC and/or in NOTAM, and requested flight levels detailed in this plan.

3.5.5 Overflight approval

3.5.5.1 Aircraft operators must obtain over-flight approval from the NCAA prior to operating flights through the Windhoek FIR. During the period of activation of this Contingency Plan the adjacent ATS authority will provide normal ATC clearances for aircraft to enter the Windhoek FIR. The adjacent ATS authority is not responsible for coordination or provision of overflight clearances for the Windhoek FIR, with the understanding that operators have obtained prior approval, and the responsibility remains with the operator to ensure any required overflight approval has been obtained.

3.5.6 Interception of Aircraft

3.5.6.1 Pilots need to be aware that a contingency routing requiring aircraft to operate off normal traffic flows may result in interception 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.

3.5.6.2 Pilots are to comply with instructions given by the pilot of the intercepting aircraft. In such circumstances, the pilot of the aircraft being intercepted shall broadcast information on the situation.

3.6 Security Threat

I. Where portions of the airspace may be subjected to a security threat the Contingency Plan shall be activated and alternative routings shall be established in cooperation with neighbouring FIRs.

II. ATC shall take note that flights may request descend at points closer to the destination aerodrome and may request frequent heading changes.

3.7 Volcanic Ash, Radioactive Material or Toxic Chemical Cloud

3.7.1 Volcanic eruptions and the resulting ash cloud can cause major disruptions in air traffic operations and in some circumstances, result in life-threatening situations for aircraft enroute. Volcanic ash is mostly glass shards and pulverized rock, very abrasive and, being largely composed of siliceous materials, with a melting temperature below the operating temperature of jet engines at cruise thrust. The ash is accompanied by gaseous solutions of sulphur dioxide (sulphuric acid) and chlorine (hydrochloric acid). Given these stark facts, it is easy to imagine the serious hazard that volcanic ash poses to an aircraft which encounters it in the atmosphere. Volcanic ash damages the jet turbine engines, abrades cockpit windows, airframe and flight surfaces, clogs the pitot-static system, penetrates into air conditioning and equipment cooling systems and contaminates electrical and avionics units, fuel and hydraulic systems and cargo-hold smoke-detection systems. Moreover, the first two or three days following an explosive eruption are especially critical because high concentrations of ash comprising particles up to ~10 µm diameter could be encountered at cruise levels some considerable distance from the volcano. Beyond three days, it is assumed that if the ash is still visible by eye or from satellite data, it still presents a hazard to aircraft.

3.7.2 If a volcanic ash cloud is reported or forecast in the Windhoek FIR, the following procedures are followed by ATC:

3.7.2.1 Relay all information available immediately to pilots whose aircraft could be affected to ensure that they are aware of the ash cloud's position and the flight levels affected;

3.7.2.2 Suggest appropriate rerouting to avoid area of known or forecast ash clouds in consultation with Meteorology services

3.7.2.3 Remind pilots that volcanic ash clouds are not detected by airborne or air traffic radar systems. Thepilot should assume that radar will not give them advanced warning of the location of the ash cloud;

3.7.2.4 Inform the adjacent ATS units and FIR that are likely to be affected by the spread of the volcanic ash and provide such information that will be relevant to the safety of flight;

3.7.2.5 The ongoing eruption phase commences with the issuance of the first volcanic ash advisory (VAA) by the Toulouse VAAC which contains information on the extent and movement of the volcanic ash cloud in accordance with Annex 3 provisions.

Contact Details for VAAC Toulouse
Tel: Operational +33 (5) 61 07 82 30 or 07 85 10
Administrative +33 (5) 61 07 82 37/82 39
Fax: Operational +33 (5) 61 07 82 54
Administrative +33 (5) 61 07 82 09
AFTN: LFPWYMYX12
E-mail: Operational vaac@meteo.fr
Administrative philippe.husson@meteo.fr
Homepage: http://www.meteo.fr/vaac/

3.7.2.6 If the ACC has been advised by an aircraft that it has entered a volcanic ash cloud and indicates that a distress situation exists:

a. Consider the aircraft to be in an emergency situation;
b. Do not initiate any climb clearances to turbine-powered aircraft until the aircraft has exited the ash cloud; and
c. Do not attempt to provide escape vectors without pilot concurrence.
d. Experience has shown that the recommended escape manoeuvre for an aircraft which has encountered an ash cloud is to reverse its course and begin a descent if terrain permits. The final responsibility for this decision, however, rests with the pilot.

e. Detailed actions to be carried out by each unit are contained in the unit's SSI.

3.7.2.7 In the event that parts of the Windhoek FIR become dangerous to use due to Volcanic Ash clouds such information shall be communicated with adjacent FIRs and the applicable NOTAM/

3.7.2.8 ASHTAM shall be dispatched.

3.7.2.9 Alternative routings shall be coordinated with adjacent FIRs on a tactical basis. In such an event the CCC shall be activated.

3.8 Public Health Emergency (PHE) Contingency Plan

This Public Health Emergency (PHE) Contingency Plan contains arrangements for actions required of Air Traffic Controllers and the need for continuous provision of Air Traffic Services during Public Health Emergencies.

This Contingency Plan also addresses levels of coordination requirements with other relevant Agencies as may be necessary during Public Health Emergency situations.

3.8.1 PUBLIC HEALTH EMERGENCY

Public Health Emergency of International Concern – means an extraordinary event which is determined by the IHR framework and communicated through WHO;

I. Constitute a public health risk to other states through the International spread of diseases, and

II. II. Potentially require a coordinated international response

PUBLIC HEALTH EMERGENCY NOTIFICATION PROCEDURES

3.8.1.1 Communicable disease

Action by Area Controller

- When a report is received from the Pilot in Command of an aircraft or another ATS Unit regarding any case(s) of communicable disease or evidence of a public health risk on board an en-route aircraft,
- the Area Air Traffic Controller shall immediately notify ATS Unit(s) serving the destination / departure airport of the following as necessary information, excluding that which is already known by the aerodrome concerned:

  I. Aircraft identification; II. Departure aerodrome; III. Destination aerodrome; IV. Estimated time of arrival; V. Number of persons on board; VI. Number of suspected case(s) on board; and VII. Nature of the public health risk, if known.
- In Namibia only Windhoek and Walvisbay airports are equipped to deal with Communicable Disease cases.
- The aircraft shall be granted appropriate priority in the issuance of ATC Clearance;
- The Duty Air Traffic Controller shall maintain an accurate and comprehensive record, in chronological order of all actions taken and any information, which may assist an enquiry.

3.8.2.2 Action by aerodrome controller

- As soon as a pilot in command of an aircraft or another ATS unit reports a case(s) of a passenger with communicable disease or Public Health risk on board, the ATC Unit shall immediately relay the message to the NAC-Fire Fighting Service using the most expeditious and appropriate communications channels giving the following information as necessary: -

- Aircraft identification.
- Departure Destination and destination aerodrome.
- Estimated time of arrival.
- Number of passengers on board and number of suspected case(s) on board.
- Nature of public health risk if known.

Duties to be carried out by the aerodrome controller

- Inform Supervisor/MATS
- The aircraft shall be granted appropriate priority in the issuance of ATC Clearance.
- On landing, ATC shall isolate the aircraft for parking at designated parking bay indicated by NAC.
- The Duty Air Traffic Control Officer shall maintain accurate and comprehensive records, in chronological order of all actions taken and any information, which may assist an enquiry.
- When certified fit for normal operations by Public Health Authority and approval given by NCAA, the aircraft shall be allowed to resume its operations

3.9 Surface-to-Air Missile threat

In the event that intelligence information indicates an imminent Surface-to-Air Missile attack against aircraft, the following action shall be taken by ATS;

3.9.1 Aircraft on the ground;

a. Hold all departures until a safe departure route can be determined in conjunction with the pilot in command and security personnel.

3.9.2 Aircraft arriving;

a. Inform pilot in command of the threat and suggest that the flight diverts to a safe alternative aerodrome,

b. In the event that the flight is required to land at the aerodrome under threat, determine a safe approach path in conjunction with the pilot in command and security personnel on the ground.

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PART 4
CONTINGENCY ROUTE AND FLIGHT LEVEL STRUCTURE

4.1 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. 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. 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 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. 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.

4.3 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.

4.4 International operators affected by the suspension of all operations from Windhoek FIR airports will be notified by the relevant airport authority when

operations may be resumed, and flight planning information will be made available pertaining to that airport. International flights who have received such approval may be required to flight plan via domestic routes to join international contingency routes.

4.5 International operators may elect to avoid the Windhoek FIR by using ATS routes as coordinated with adjacent FIRs.

4.6 The following Contingency Routes may be activated on a tactical basis by the CCC;

Contingency route structure during partial unavailability of the WINDHOEK FIR

Contingency Routings	Contingency Route Number	FLAS	Minimum Longitudinal Separation	FIRs Involved
DUPKI-UN184-EVUVI (Bi- Directional)	***CR1***	Westbound- FL300,320, 380 Eastbound- FL350, 370, 410	15 minutes	FNAN/FYWF/ FBGR
BOPAN-UL435-IBLOK (Bi- Directional)	***CR2***	Westbound- FL300, 320, 380 Eastbound – FL350, 370, 410	15 minutes	FBGR/FYWF/ FAJO
XORAK-UN183-XALVI-NIBEK (Uni-Directional)	***CR3***	Westbound- FL300, 320, 380	15 minutes	FBGR/FYWF/ FAJO
NIBEK-UN183-XALVI-UN181-GABSI (Uni- Directional)	***CR4***	Eastbound- FL350, 370, 410	15 minutes	FBGR/FYWF / FAJO
AVOGU-UL307-ABAPU (Bi- Directional)	***CR5***	Westbound- FL300, 340, 360 Eastbound- FL330,370, 390, 410	15 minutes	FBGR/FYWF /FNAN
ANVAG-UN187-VEDRY-UL686-EGNOR (Bi- Directional)	***CR6***	Northbound- FL280,340 Southbound- FL310, 330, 390	15 minutes	FNAN/FYWF /FAJA
XUDAN-UN188-XALVI-UN190-OKDOL (Bi- Directional) Note.: Traffic routing northbound shall fly at an even level and southbound at an odd level.	***CR7***	Northbound- FL280,340,360, Southbound FL330,390 (Bi-Directional) Note.: Traffic routing From XUDAN to OKDOL shall fly at an even level and from OKDOL to XUDAN at an odd level.	15 minutes	FAJA/FYWF /FNAN

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PART 5
AERONAUTICAL INFORMATION SERVICES

5.1 The objective of Aeronautical Information Management (AIM) is to ensure the flow of aeronautical information necessary for the safety, regularity and efficiency of flight. Timely, accurate and quality assured aeronautical information is a crucial foundation of the ATM system. The failure to provide timely warnings of change can adversely affect such operations. AIM operations can be broadly separated into two categories: Static data as published in the Aeronautical Information Publication and dynamic data, the publication of short notice changes information by use of a Notice to Airmen message.

5.2 It is considered unlikely that a system failure in a State associated with the production and publication of AIP change information would be of lasting duration or impact. Should such a failure occur, then it is considered that the impact would probably result in the late publication of change information in paper format within the context of the appropriate AIRAC cycle. In such cases, the means of mitigation already exists through the medium of the NCAA interactive website which is already extensively used by AIM for such purposes. Such interactive website may then be deemed mitigation in the short term in the event of a total static information system failure.

5.3 Failure of the Dynamic Data system will prevent the distribution and subsequent notification of activation of the Contingency Plan. In the event of such a failure AIM shall coordinate with the South African International NOTAM office as per the Letter of Agreement between said offices.

APPENDIX A

Contact details for all concerned States, IATA and accredited ICAO Regional Office.

State/ Organization	Point of contact	Telephone	E-mail
BOTSWANA	P. Motsumi	00267 3959440	pmotsumi@caab.co.bw
ANGOLA	Eduardo Manzodila	+244-222-338536 / 338596	eduardo.manzodila@inavic.gv.ao
SOUTH AFRICA	Itumeleng Baloyi	+27 78 368 7650	itumelengb@atns.co.za
SOUTH AFRICA	Zandile Sokatsha	+2711 9286456	zandileso@atns.co.za
IATA	Lindi-Lee Kirkman Manager, Safety and Flight Operations ATM Infrastructure Focus	Tel : +271152327399 +2782 331 3259 (Mob)	kirkmanl@iata.org
ICAO	Mr. Barry Kashambo **Regional Director - ESAF**	***+254 207622394*** +254 207621092/7623028 (Fax)	BKashambo@icao.int
	Mr. ArthemonNdikumana **Deputy Regional Director - ESAF**	***+254 207622367 (Off)*** +254 207621092/7623028 (Fax)	ANdikumana@icao.int
	Ms. Keziah A. Ogutu **Regional Officer – ATM/SAR** **ESAF**	***+254 207622372 (Off)*** +254 207621092/7623028 (Fax)	kogutu@icao.int

APPENDIX B

Contact details of the CCC members

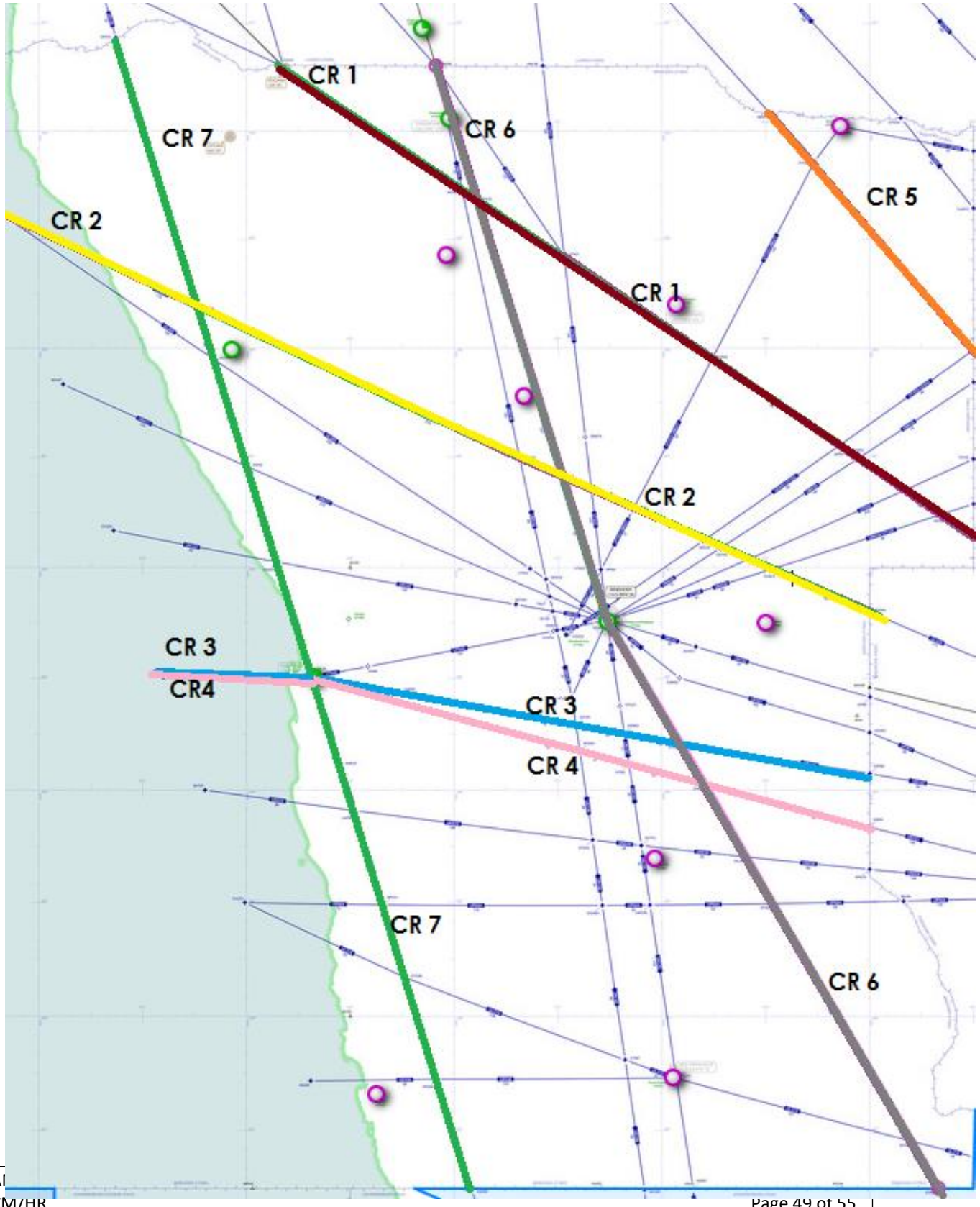
State/ Organization	Point of contact	Telephone	E-mail
NAMIBIA - NCAA/ANSSO	Mr M. Stiemert NCAA: Senior Inspector- ATM and Mr V. Kaurimuje NCAA: Senior Inspector- MET	+264 83 2352369 or (cell) +264 81250801 +264 83 2352389 0r (cell) +264 812923563	stiemertm@ncaa.com.na kaurimujev@ncaa.com.na
NAMIBIA - NCAA/ANSP	Acting Head of Air Navigation Services	+264 811277425 +264 61702217	kamatij@ncaa.com.na
NAMIBIA - NAC	Risk and Compliance: Mr C. Faure Strategic xecutive: Airport Ops Mr. L. Shipuata	+264 61 2955011 or (cell) 0811277389 +264 61 2955504 or +264 811441631	faurec@airports. com.na shipuatal@airports.com.na
NAMIBIA - Ministry of Defence	Group Captain: C.M. Chizabulyo Wing Commander: T.J. Titus	+264 811432784 +264 61 2042211 +264 812280893	matengu@yahoo.com teopotitus@gmail.com
NAMIBIA - Airspace Representative	Aircraft Owners and pilots Association (AOPA) President: Mark Daw	+264811294052	mdawe@b2gold.com
NAMIBIA - Government Air Transport Services	Captain P. Nkandi Senior Pilot, Government Air Transport Services	+264 61 379800 (cel) +264 811456478	stheita@gmail.com
NAMIBIA - OFFICE OF THE PRIME MINISTER	Disaster Risk Management Fariedah Shikongo	+ 264 4351000/99 or +264 812987466	fariedah.shikongo@opm. gov.na
NAMIBIA- AIR NAMIBIA	Air Namibia Manager of Flight Operations Raymond Masuku	+264811227267	raymond.masuku@airnamib ia.aero

Appendix C
Contingency route structure during partial unavailability of the WINDHOEK FIR

Contingency Routings	Contingency Route Number	FLAS	Minimum Longitudinal Separation	FIRs Involved
DUPKI-UN184-EVUVI (Bi- Directional)	***CR1***	Westbound- FL300,320, 380 Eastbound- FL350, 370, 410	15 minutes	FNAN/FYWF/ FBGR
BOPAN-UL435-IBLOK (Bi- Directional)	***CR2***	Westbound- FL300, 320, 380 Eastbound – FL350, 370, 410	15 minutes	FBGR/FYWF/ FAJO
XORAK-UN183-XALVI-NIBEK (Uni-Directional)	***CR3***	Westbound- FL300, 320, 380	15 minutes	FBGR/FYWF/ FAJO
NIBEK-UN183-XALVI-UN181-GABSI (Uni- Directional)	***CR4***	Eastbound- FL350, 370, 410	15 minutes	FBGR/FYWF / FAJO
AVOGU-UL307-ABAPU (Bi- Directional)	***CR5***	Westbound- FL300, 340, 360 Eastbound- FL330,370, 390, 410	15 minutes	FBGR/FYWF /FNAN
ANVAG-UN187-VEDRY-UL686-EGNOR (Bi- Directional)	***CR6***	Westbound- FL280,340 Eastbound- FL330, 310, 390	15 minutes	FNAN/FYWF /FAJA
XUDAN-UN188-XALVI-UN190-OKDOL (Bi- Directional) Note.: Traffic routing northbound shall fly at an even level and southbound at an odd level.	***CR7***	Northbound- FL280,340,360, Eastbound FL330,390 (Bi-Directional) Note.: Traffic routing From XUDAN to OKDOL shall fly at an even level and from OKDOL to XUDAN at an odd level.	15 minutes	FAJA/FYWF /FNAN

Appendix D

FYWF FIR diagram containing all 7 Contingency Routes (CR's)



Appendix E

SAMPLE NOTAMS

WINDHOEK FIR CONTINGENCY NOTAM

SCENARIO 1: PARTIAL UNAVAILABILITY OF THE AIRSPACE

UNAVAILABILITY OF AIRSPACE IN WINDHOEK FIR SOUTH OF LATITUDE 22 33 00E

NOTAM ……. .WEF …… TO …….. AIRSPACE SOUTH FROM A POINT 223000S 0130000E ALONG A STRAIGHT LINE TO A POINT222000S 0200000E UNAVAILABLE WITHIN THE WINDHOEK FLIGHT INFORMATION REGION. ALL FLIGHTS SHALL COMPLY WITH THE REQUIREMENT TO SELECT SPECIED CONTINGENCY ROUTES AND FLIGHT LEVELS APPLICABLE TO THE CONTINGENCY ROUTES AS DETAILED HERE BELOW. ADJACENT AREA CONTROL CENTRES OF FAJA, FBGR, FNAN, AND FAJO WILL ALLOCATE ONLY THE CONTINGENCY ROUTES AND FLIGHT LEVELS SPECIFIED AS FOLLOWS:

A) **CR1**(UN184) EVUVI-OTAVI-DUPKI: BI-DIRECTIONAL EASTBOUND FL350/370/410 WESTBOUND FL 300/320. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

B) **CR2** (UL435) IBLOK-IXEPA-DETUX-UNLIL-BOPAN: BI-DIRECTIONAL EASTBOUND FL350/370/410 WESTBOUND FL300/320/380. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

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.

SCENARIO 2: PARTIAL UNAVAILABILITY OF THE AIRSPACE

UNAVAILABILITY OF AIRSPACE IN WINDHOEK FIR NORTHOF LATITUDE 22 33 00E

NOTAM ……. .WEF …… TO ……..AIRSPACE NORTH FROM A POINT 223000S 0130000E ALONG A STRAIGHT LINE TO A POINT 222000S 0200000EUNAVAILABLE WITHIN THE WINDHOEK FLIGHT INFORMATION REGION. ALL FLIGHTS SHALL COMPLY WITH THE REQUIREMENT TO SELECT SPECIATCC CONTINGENCY ROUTES AND FLIGHT LEVELS APPLICABLE TO THE CONTINGENCY ROUTES AS DETAILED HERE BELOW. ADJACENT AREA CONTROL CENTRES OF FAJA, FAJO, AND FBGR WILL ALLOCATE ONLY THE CONTINGENCY ROUTES AND FLIGHT LEVELS SPECIFIED AS FOLLOWS:

C)CR3 (UN183) XORAK- XALVI-NIBEK: UNIDIRECTIONAL WESTBOUND FL300/320/380. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

D) CR4NIBEKUN183-XALVI-UN181-GABSI: UNIDIRECTIONAL EASTBOUND FL350/370/410. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

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.

SCENARIO 3: PARTIAL UNAVAILABILITY OF THE AIRSPACE

UNAVAILABILITY OF AIRSPACE IN WINDHOEK FIR NORTH OF LATITUDE 07 00 00N

NOTAM ……. .WEF …… TO ……. AIRSPACE EAST OF LATITUDE 07 00 00N UNAVAILABLE WITHIN THE WINDHOEK FLIGHT INFORMATION REGION. ALL AIRCRAFT SHALL COMPLY WITH THE REQUIREMENT TO SELECT SPECIATCC CONTINGENCY ROUTES AND FLIGHT LEVELS APPLICABLE TO THE CONTINGENCY ROUTES AS DETAILED HERE BELOW. ADJACENT AREA CONTROL CENTRES OF FNAN, FAJA WILL ALLOCATE ONLY THE CONTINGENCY ROUTES AND FLIGHT LEVELS SPECIFIED AS FOLLOWS:

A) **CR5**(UL307) ABAPU- AVOGU': BI-DIRECTIONAL EASTBOUND FL330/370/390/410 WESTBOUND FL300/ 340/ 360. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

B) **CR6** (UN187)- VEDRY- UL686-EGNOR: BI-DIRECTIONAL SOUTHBOUND ANVAG-VEDRY-OKLAV-EGNOR FL310,330,390. NORTHBOUND FL280,340 . MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

C) **CR7** (XUDAN-UN188-XALVI-UN19-OKDOL) – BI-DIRECTIONAL XUDAN-XALVI-UNPIN-IXEPA-OKDOL

NORTHBOUND FL 280/340/360 SOUTHBOUND FL330/390. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

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.

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SCENARIO 4: UNAVAIBILITY OF ATS IN WINDHOEK FIR

NOTAM ……. WEF …… TO ……. WINDHOEKATCC TEMPORARILY UNABLE TO PROVIDE AIR TRAFFIC SERVICE IN THE ENTIRE AIRSPACE WITHIN THE WINDHOEK FIR. ALL AIRCRAFT SHALL COMPLY WITH REQUIREMENT TO SELECT SPECIATCC CONTINGENCY ROUTES AND FLIGHT LEVELS APPLICABLE TO THE CONTINGENCY ROUTES IN ACCORDANCE WITH THE FLIGHT LEVEL ALLOCATION SCHEME (FLAS) DETAILED HEREBELOW. ADJACENT AREA CONTROL CENTRES OF FAJO, FAJA, FNAN AND FBGR WILL ALLOCATE ONLY THE CONTINGENCY ROUTES AND FLIGHT LEVELS SPECIFIED AS FOLLOWS:

A) **CR1** (UN184) EVUVI-OTAVI-DUPKI: EASTBOUND FL350/370/410 WESTBOUND FL 300/320. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

B) **CR2** (UL435) IBLOK-IXEPA-DETUX-UNLIL-BOPAN: EASTBOUND FL350/370/410 WESTBOUND FL300/320/380. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

C**)** **CR3**(XORAK-UN183-XALVI-NIBEK): UNIDIRECTIONAL WESTBOUND FL300/320/380. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

D) **CR4** NIBEK-UN183-XALVI-UN181-GABSI: UNIDIRECTIONAL EASTBOUND FL350/370/410. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

E) **CR5** (UL307) ABAPU- AVOGU: EASTBOUND FL330/370/390/410 WESTBOUND FL300/ 340/ 360. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

F) **CR6** (UN187- VEDRY- UL686-EGNOR) –ANVAG-VEDRY-OKLAV-EGNOR: BI-DIRECTIONAL NORTHBOUND FL280,340 AND SOUTHBOUND FL310,330,390 MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

G) **CR7** (XUDAN-UN188-XALVI-UN19-OKDOL) – XUDAN-XALVI-UNPIN-IXEPA-OKDOL-BI-DIRECTIONAL.TRAFFIC ROUTING FROM XUDAN TO OKDOL SHALL FLY AT AN EVEN LEVEL 280/340/360 SOUTHBOUND AT ODD LEVELS: FL330/390. MINIMUM LONGITUDINAL SEPARATION APPLICABLE IS 15 MINUTES.

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.

APPENDIX F

List of Frequencies to be used

1. A list of frequencies to be used for the contingency routes and the ATS units providing flight information service (FIS) and air-ground communication monitoring for the WINDHOEK FIR is as follows:

WINDHOEK Flight Information Centre (FIC)

a) Hours of Operation: Sunrise to Sunset
b) Frequencies:123.8 MHz (South) and 129.6 MHz (North)
c) Call sign: Windhoek Information

2. In the event of these frequencies not being available, aircraft are to contact Windhoek RADAR Control on the following frequencies:

Windhoek RADAR

a) Hours of operation/Language: H24 English
b) Frequencies : Primary frequency 124.7 MHz Secondary 1205.MHZ
c) Call sign: Windhoek Radar