APPENDIX A

Guide for the preparation of a Contingency Plan

Contingency Plan for the XXXX FIR

Effective: (day) (month) (year) as of (UTC hours)

1. **Introduction**

1.1 This Contingency Plan was drawn up on the basis of the guidelines approved by the ICAO Council, as contained in the Air Traffic Services Planning Manual (Doc 9426, Part II, Section I, Chapter 1, paragraph 1.3).

1.2 The purpose of this Contingency Plan is to facilitate and maintain the orderly and safe movement of international civil aviation through the airspace of the XXX FIR (name of the corresponding FIR/FIRs) in the event of a limited interruption in air traffic services and/or to establish contingency routes for routing the flow of traffic between the (name of the corresponding FIR/FIRs and name of the State) FIRs in the event of a total interruption in both air traffic services and support services.

1.3 This Contingency Plan was prepared by (name of the State), with the assistance of the ICAO NACC Regional Office (if applicable) and approved by the President of the Council.

1.4 The effective application of this plan presupposes the existence of close co-operation, collaboration, and acceptance on the part of the aeronautical authorities of the FIRs involved and of the users of the airspace in question.

2. **FIRs affected**

2.1 The FIRs directly affected by this Contingency Plan are:

(Identify the FIRs of the State and of adjacent States that are affected)

3. **Basic principles**

3.1 The contingency measures set out in this plan are applicable in cases of foreseeable events caused by strikes or labour conflicts or of unexpected interruptions in air traffic services caused by other circumstances, which, in one way or another, may impair the provision of air traffic services and/or of the related support services in the (name of the FIR/FIRs involved) FIR/FIRs.

3.2 The following principles are established to ensure that international civil aviation operations proceed in a safe and orderly fashion:

a) XXX hours in advance, the aeronautical administration shall appoint a central body comprised of (names of the units that will comprise the central body), whose mission will be to assess those events that require the preparation and implementation of the corresponding contingency arrangements. This body shall have the power to take subsequent measures until the system returns to normal.

b) The central body will also have a contingency group headed by (name of the position that will be responsible for chairing the central body), whose mission shall be to carry out and co-ordinate activities, 24 hours a day, throughout the contingency period. This group will be made up of competent personnel from the following specialized areas:

- Air traffic services (ATS)
- Aeronautical telecommunications (COM)
- Aeronautical meteorology (MET)
- Aeronautical information services (AIS)
- Airport management
- etc.

The mission of this group shall be:

a) to review and update this plan periodically,

b) to be abreast at all times of the contingency situation,

c) to organize contingency teams in each of the specialized areas,

d) to keep in contact with the airlines, IATA, IFALPA and ICAO,

e) to exchange up-to-date information with (name of the States) and to co-ordinate contingency activities with those States,

f) to notify the following organizations about the contingency situation sufficiently in advance and/or as soon as possible:

Note: The names, addresses, telephone and fax numbers, e-mail address, etc., are given in **Appendix XX** to this Contingency Plan, which should be updated periodically.

- representatives of regular air transport companies,

- the ACCs responsible for the adjacent FIRs and other ACCs that might be affected by the contingency measures,

- the ICAO NACC Regional Office,

- the IATA Regional Office,

- the Regional Representative of IFALPA,

g) to take the necessary action for issuing the respective NOTAM, according to the corresponding contingency situation, as described in Appendix XXXX to this plan. If the situation is foreseeable, the NOTAM will be issued 48 hours in advance.

4. **Applicable provisions in the event of a reduced provision of air traffic services**

4.1 If flight information services (FIS) and aerodrome control services at the (name of the airport/airports concerned) airport will be available during the contingency, a simplified system of ATS routes that constitute the route network structure of the (name of the FIR/FIRs concerned) FIR will be used, in accordance with the following:

4.1.1 **Aircraft going from the XXX FIR to Terminal Area XXX**

(The routes to be used by aircraft flying from each FIR concerned to the corresponding terminal area should be identified.)

4.1.2 **Aircraft going from Terminal Area XXX to the XXX FIR**

(The routes to be used by aircraft flying from the terminal area to each FIR concerned should be identified.)

4.1.6 **Aircraft overflying the XXX FIR from the AAA FIR to the ZZZ FIR**

(The routes to be used by aircraft overflying the FIR/FIRs concerned should be identified.)

4.1.7 **Aircraft overflying the XXX FIR from the ZZZ FIR to the AAA FIR**

(The routes to be used by aircraft overflying the FIR/FIRs concerned should be identified.)

4.2 **Procedures applicable to the ATS units involved**

4.2.1 The ATS units involved shall use the following procedures:

a) Flight Plan messages must be transmitted to the XXX ACC via the AFTN using normal procedures.

b) Authorization must be given for the entry into the XXX FIR of one aircraft every XX minutes (longitudinal separation minimum to be established in keeping with the circumstances) in both the upper and lower airspaces, irrespective of the flight levels used.

c) They must communicate, via ATS co-ordination circuits and not less than 30 minutes beforehand, the estimated time over the reporting points for entry into the following FIR after overflying the XXX FIR.

d) They will instruct the pilots-in-command of the aircraft to maintain the last level assigned and speed (MACH number if applicable) while overflying the XXX FIR.

e) They will not authorize any change in flight level or speed (MACH number, if applicable) later than 10 minutes before the aircraft enters the XXX FIR.

f) Aircraft that so prefer may be routed through the contingency ATS routes listed under paragraph 5.3 of this Contingency Plan.

g) The XXX FIC will inform the aircraft that they must communicate with the adjacent ATC units 5 minutes before their estimated time of entry into the corresponding FIR.

4.3 **Procedures applicable to aircraft**

4.3.1 Aircraft overflying the XXX FIR or proceeding to or from Terminal Area XXX shall abide by the following procedures:

a) All aircraft proceeding along the ATS routes established in this Contingency Plan will abide by the instrument flight rules (IFR) and will be assigned a flight level, in accordance with the cruise level table shown in Annex 2, Appendix 3.

b) Fly along the route or as close as possible to the centre line of the assigned contingency route.

c) Keep continuous watch on the XXX VHF frequency and transmit on that frequency, preferably in English, the real or estimated position at the reporting points.

d) Transmit on the XXX VHF frequency any climb or let-down manoeuvre required by circumstances. Climb and let-down manoeuvres should be clearly performed to the right of the route centre line. The message shall include: aircraft identification, position, level abandoned, level crossed, etc.

e) Keep navigation and anti-collision lights on while overflying the XXX FIR.

f) Maintain the last SSR transponder assigned or, if no transponder has been assigned, maintain the 2000 code.

5. **Applicable provisions in the event of a total interruption of air traffic services**

5.1 If air traffic services are totally interrupted and it is decided that international civil aviation operations may not be carried out in the airspace of the XXX FIR/FIRs, the affected international air traffic shall be routed along the following routes:

5.2 **Aircraft going from the ZZZ FIR to the XXX FIR**

5.2.1 Aircraft going from the ZZZ FIR to the XXX FIR will be channelled along the ATS route network of the FIRs as follows:

- **Contingency Route 1 (CR 1):**

- **Contingency Route 2 (CR 2):**

- **etc.**

5.3 **Aircraft going from the XXX FIR to the ZZZ FIR**

5.3.1 Aircraft going from the XXX FIR to the ZZZ FIR will be routed along the ATS route network of the FIRs, as follows:

- **Contingency Route 3 (CR 3):**

- **Contingency Route 4 (CR 4):**

- **etc.**

6. **Procedures applicable to ATS units involved**

6.1 The XXX, ZZZ, etc., ACCs:

a) Will apply the procedures in force established in the Operational Letters of Agreement.

b) Will further route the traffic to and from the XXX airports as follows: (additional routing, if necessary)

7. **Procedures applicable to aircraft**

7.1 Aircraft will follow these procedures:

a) They will plan their flight and proceed along the ATS routes specified in paragraphs 5.2 and 5.3, according to their airport of origin and destination.

b) If applicable, they will follow the procedures indicated in paragraph 4.3.

8. **Additional considerations**

8.1 Contingency arrangements provided for herein are provisional and will be in effect only until the services and facilities of the plan become operational again. Therefore, they do not constitute amendments to the regional plan which would have to be processed in keeping with the procedures for amendment of approved regional plans.

8.2 This plan was prepared in consultation with the States that would be affected by the contingency measures to be applied and with the ICAO NACC Regional Office, which has been responsible for co-ordinating the plan with the States and international organizations concerned.

SUPPORT SERVICES CONSIDERATIONS' FOR FIR ATS CONTINGENCY PLANS

AIS

The NOTAM Contingency Plan will be developed in order to detail the measures that will support the Air Traffic Services Contingency Plan, through the efficient exchange of NOTAM information on a National and International basis; as well as to ensure that the operations will continue even if they are affected by several failures in the system. The NOTAM Contingency Plan will establish the actions to take in order to reduce the impact of the failures in the NOTAM services by providing the technical (in Databases and AFTN communication) and administrative measures. The Plan will also establish the necessary coordination and operational procedures that should be established before, during and after any Contingency phase.

CNS

The CNS Contingency Plan to support the ATS, requires a national/multinational plan of States/Territories/International Organizations of the CAR Region which identifies CNS providers; the primary system that provides these services; the contingency measures agreed with each provider, in case there is an interruption to the primary service, and the causes that could cause failures. The following Table shown presents the preliminary information proposed for the systems/services of a CNS Contingency Plan.

Table CNS/1: Preliminary Information for the CNS Contingency Plan to support the ATS

No.	System/Service	Service Provider	Primary Means	Contingency Alternative
1	***Communication System***			
1.2	ATS Speech circuits			
1.2.1	Circuit support system			
1.2.2	Central Equipment			
1.2.3	Terminal Equipment			
1.3	AFTN System			
1.3.1	Circuit support system			
1.3.2	Main Hardware/software			
1.3.3	Terminal Equipment			
1.4	Radio communication systems of the aeronautical mobile service.			
1.4.1	Support system for the communications between the VHF/HF Station and the Centre.			
1.4.2	VHF/HF Station Equipment			
1.4.3	ATS Unit Equipment			
1.5	ATS System			

No.	System/Service	Service Provider	Primary Means	Contingency Alternative
1.6	Communication recording systems			
2	***Navigation Systems***			
2.1	VOR "Identification"			
2.2	DME "Identification"			
2.3	ILS "Identification"			
3	***Surveillance Systems:***			
3.1	Primary Radar			
3.1.1	Support system for the communications between the radar and the Centre			
3.1.2	Radar Station equipment			
3.1.3	Terminal Equipment			
3.2	Secondary Radar			
3.2.1	Support system for the communications between the radar and the Centre			
3.2.2	Radar Station equipment			
3.2.3	Terminal Equipment			
3.3	Flight Plan Processing			
3.4	Radar Data Processing.			
4	***Electric Energy Feedin Systems:***			
4.1	Public Network Electrical supply systems			
4.2	Local electrical supply system.			

MET

The OPMET information in alphanumerical format (METAR, SPECI, TAF, TAF AMD, SIGMET, AIRMET, volcano ash and tropical cyclones advisories), received by the AFTN at the World Area Forecasting Centres (WAFCs) of Washington and London are uplinked to the three ICAO satellite transmissions (ISCS (1), ISCS (2) and the SADIS) for the global dissemination to those States having appropriate one-way VSAT receiving equipment.

Another alternative means of OPMET information transmission to both WAFCs (London and Washington), which offers a valuable contingency for the global dissemination of OPMET information, could be the use of the communication networks of communication service providers (ARINC and SITA). However, it should be noted that a failure in the PTT supply or commercial power may impact these services. If for any reason, it were not possible to take advantage of the ARINC and SITA circuits, in order to provide support to the AFTN contingency plan globally. There would still be the possibility of making specific arrangements to the regional contingency plan in order to receive the OPMET information.

This could cause the insertion of the OPMET information at airline company offices at aerodromes by the intervention of the aerodrome meteorological office and the meteorological watch office (MWO); for onward delivery to the London and Washington WAFCs and the AFTN commuting centres.

Al least in theory, OPMET information could be concentrated at either of the two WAFCs and would be forwarded to the other via dedicated GTS link between London and Washington.

Another alternative is to use the Internet with all its limitations. Washington allows the access of OPMET information, and other products through the Internet; however, it does not allow data input via the Internet. However, it should be kept in mind that the Internet does not necessarily satisfy the time sensitive requirements for critical air traffic services demand as far as ATS/AIS/MET messages.

Regardless of the limitations, it could be feasible to consider some specific criteria that could be met by a trustworthy provider in terms of reliability, accessibility and security; and be considered only as a backup by international agreement to obtain aeronautical meteorological data and information in support of international air navigation.