International Civil Aviation Organization

The Fourth Meeting of the Bay of Bengal Reduced Horizontal Separation Implementation Task Force (BOB-RHS/TF/4)

Bangkok, Thailand, 18 to 22 October 2010

Agenda Item 8: Any Other Business

CONTINGENCY PLANS FOR SOUTHEAST AND SOUTH ASIA STATES

(Presented by the Secretariat)

SUMMARY

Due to natural disasters which have occurred within parts of the Asia and Pacific (APAC) Region over the past decade, this working paper is a reminder of State responsibilities in the production of suitable Contingency Plans in association with neighbouring FIRs, which would allow a continued flow of aircraft through the affected area, or specific instructions as necessary to divert around the area affected.

1. INTRODUCTION

1.1 ATS Contingency Planning is necessary to ensure the continuing safety of air navigation within each FIR and to minimise effects on the travelling public in the event of facility failures, natural disasters, pandemics, civil unrest (demonstrations), operational personnel shortages or industrial action.

1.2 This working paper serves as a reminder of State responsibilities in the production of suitable Contingency Plans in association with neighbouring FIRs which would allow a continued flow of aircraft through the affected area, or specific instructions as necessary to divert around the area affected.

2. DISCUSSION

2.1 One of the most crucial areas where a sound contingency plan is important concerns natural disasters. This phenomena could be contained in one FIR or cover multiple FIRs within one State or adjacent States of the APAC region.

2.2 Due to the geographic features of many parts of the APAC region, there have been several occasions where the potential for disruption to aviation facilities have taken place. As an example, volcanic activity has occurred causing closure of airspace over particular areas. At other times, severe flooding of vast tracks of land has seen many lives lost and economies severely affected as well as mobilization of thousands of people away from the affected area. Another destructive event has been tsunamis, which have caused havoc to many nations over a wide area.

2.3 In this respect, APAC aviation has been fortunate so far in that there has been little or no disruption to air traffic services. Nevertheless States should be prepared to activate an established and trialled (normally by simulation) contingency plan to be implemented if this scenario occurs.

2.4 In light of the longstanding difficulties in Contingency Planning, APANPIRG/16 considered (Conclusion 16/15) that an ICAO Special Implementation Project (SIP) would be a suitable means for facilitating the development of contingency plans. Contingency plans would be developed for a selected State, which could then be used as a model for other States. In addition to addressing the contingency provisions of Annex 11, the SIP would be used to identify and prioritize other contingency factors that could impact the continuity of civil aviation operations, with a view to using the output of the SIP in a workshop or seminar format to assist other States of the Region. The completed model was based on the two Indonesian FIRs and was sent to all APAC States for their guidance in developing their own contingency plans for their airspace concerned.

2.5 Although circumstances where a State was unable to provide all the services listed in their AIP were sometimes unavoidable, this should not generally result in the closure of international airspace. Situations where difficult circumstances were being experienced by a ground unit were always regrettable, however contingency planning should make adequate provision for ongoing operations (including humanitarian operations), by putting in place alternative arrangements that may include assistance from neighbouring States to temporarily provide services within affected airspace.

2.6 One of the major thrusts of this contingency plan model dealt with the coordination and cooperation of the neighbouring FIRs. Of major concern was loss of communications by the State directly affected by the disaster and the necessary agreements with other States in assisting aircraft to communicate with another ACC. Another area was the harmonization of ATS routes crossing the FIR boundary with a neighbouring State(s).

2.7 The meeting should also observe that in the age of ultra-long haul operations, whereby a flight may be airborne for 15 hours and cross a large number of FIRs, contingency planning was required to minimise circumstances in which an en-route airspace or FIR was not able to be crossed. It should be noted that, in the experience of several APAC States, problems have occurred in developing Contingency Plans with adjacent ATS Providers when their ATM systems were not able to share traffic data.

2.8 It is emphasized to the meeting that on many occasions, to ensure that airlines and the travelling public have minimum disruption during a natural disaster, a contingency plan of one State has the agreed consensus of the neighbouring FIRs to be a productive and successful plan.

2.9 The meeting is also reminded that in this context the provisions of Attachment D to ICAO Annex 11 comprises the primary reference and all States are encouraged to again review the provisions of Attachment D.

2.10 A copy of the model Indonesia Contingency Plan agreed to by ICAO is displayed as **attachment 1 and 2** to this working paper.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) follow the guidance given in the ICAO Draft Contingency Plan;

b) where necessary to do so, arrange coordination meeting with their neighbouring States to ensure harmonization of respective Contingency Plans;

c) comment of any areas of the draft plan where there may be alternative thoughts on important matters; and,

d) advise the meeting on the status of each States' contingency plan, especially with regard to natural disasters.

……

INDONESIA AIR TRAFFIC SERVICES

CONTINGENCY PLAN

JAKARTA FIR – PART I

PREPARED BY

Indonesian Contingency Plan Project Team

AIR TRAFFIC SERVICES DIVISION
DIRECTORATE GENERAL OF CIVIL AVIATION, INDONESIA

TABLE OF CONTENTS

	Page
Foreword	ii
Record of Amendments	iii
PART 1 – Contingency Plan for the Jakarta FIR	1
Objective	1
States and FIRs Affected	1
Management of the Contingency Plan	2
Contingency Route Structure	3
ATM and Contingency Procedures	4
Pilots and Operator Procedures	7
Communication Procedures	8
Aeronautical Support Services	9
Search and Rescue	10
Appendix 1A – Contact Details	1A-1
Appendix 1B – Coordinating Bodies	1B-1
Appendix 1C – Specimen NOTAMs	1C-1
Appendix 1D – International Route Structure for Jakarta During Total Disruption	1D-1
Appendix 1E – Chart of Contingency Routes	1E-1
Appendix 1F – Contingency Frequencies for Control and/or Flight Monitoring	1F-1
Appendix 1G – Flight Planning	1G-1
Appendix 1H – ICAO Interception Procedures	1H-1

FOREWORD

This is the first edition of the Indonesian Air Traffic Management (ATM) Contingency Plan for Air Traffic Services (ATS) for the Upper Airspace of the Jakarta Flight Information Region (FIR). The Contingency Plan will come into effect as determined by the Director General of the Directorate General of Civil Aviation (DGCA), who is the authority for civil aviation operations in Indonesia.

This Contingency Plan (the Plan) is presented in two Parts: Part I for the Jakarta FIR, and Part II for the Ujung Pandang FIR. Part I of the Plan provides for the contingency arrangements to be introduced to permit the continuance of international flights to transit the Jakarta FIR, in the event that the air traffic and support services normally undertaken by the Jakarta Area Control Centre (ACC) should become partially or totally unavailable due to any occurrence that restricts flight operations. Similarly, Part II provides the contingency procedures for the Makassar ACC. In the event of both ACCs becoming inoperative, Parts I and II will be activated catering for the worst case scenario of a total disruption in ATS for the Upper Airspace of the Jakarta and Ujung Pandang FIRs.

The Indonesian territory, which comprises an archipelago of some 17,500 islands extending about 5000 kms mainly in an east/west direction, is located in a major earthquake zone with many active volcanoes. A major earthquake could strike at any time causing serious damage to civil aviation and air navigation services, facilities and infrastructure. With two major ACCs located at Jakarta for the west region and Ujung Pandang for eastern region, it is considered highly unlikely that both facilitates would be out of service simultaneously. However, in the event that one ACC becomes inoperable, and ATS became unavailable, it would take several days to relocate and operate ATS from the remaining ACC and restore a more normal level of service. During this interim period, flight operations in Indonesia would be severely restricted.

This Plan has been developed in close co-operation and collaboration with the civil aviation authorities responsible for the adjacent FIRs and representatives of the users of the airspace. The Indonesian Air Force also has been consulted and recognizes the requirement for the Plan and the civil aviation procedures that apply thereto.

The Plan will be activated by promulgation of a NOTAM issued by the Indonesian International NOTAM Office (NOF) 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 the designated authority, as authorized by the DGCA. 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 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 provide for the safe and orderly continuation of international flights through Indonesian airspace.

Any proposed amendments to this plan shall be forwarded to:

Director General
Directorate General of Civil Aviation
Jl. Medan Merdeka Barat No. 8
Gedung Karsa Lt. 5
Jakarta, 10110, Indonesia
Tel: (62-21) 3505137
Fax: (62-21) 3505139
Email: dirjenud@indosat.net.id

RECORD OF AMENDMENTS

Amendment Number	Effective Date	Date Entered	Entered By	Paragraph/ Reference

PART I

ATS CONTINGENCY PLAN FOR INTERNATIONAL FLIGHTS TO TRANSIT THE UPPER AIRSPACE OF THE JAKARTA FIR

Effective: 1 August 2007, 0000 (UTC)

1. OBJECTIVE

1.1 The Air Traffic Management (ATM) Contingency Plan, Part I contains arrangements to ensure the continued safety of air navigation in the event of partial or total disruption of air traffic services in the Jakarta FIR in accordance with ICAO Annex 11 ─ *Air Traffic Services,* Chapter 2, paragraph 2.29. The Contingency Plan provides the ATS procedures and contingency route structure using existing airways in most cases that will allow aircraft operators to transit the Jakarta FIR.

1.2 This Contingency Plan does not address arrangements for aircraft arriving and departing at Indonesian airports or for domestic flight operations within the territory of Indonesia.

2. STATES AND FIRS AFFECTED

2.1 In the event that the Director General, DGCA activates this Contingency Plan, the civil aviation authorities of the adjacent FIRs will be notified in accordance with the Operation Coordination Agreement (OCA) established between the States concerned. The adjacent States, FIRs and ACCs directly affected by this Contingency Plan are as follows:

a) Australia

Melbourne FIR (ACC)

b) India

Chennai FIR (ACC)

c) Malaysia

Kota Kinabalu FIR (ACC)
Kuala Lumpur FIR (ACC)

d) Singapore

Singapore FIR (ACC)

e) Sri Lanka

Colombo FIR (ACC)

f) Indonesia

Ujung Pandang FIR (ACC)

2.2 The contact details of the civil aviation authorities and organizations concerned are contained in **Appendix 1A.** These details should be kept up to date and relevant information provided to the DGCA as soon as practicable**.**

3. MANAGEMENT OF THE CONTINGENCY PLAN

3.1 The contingency measures set out in this Plan are applicable in cases of foreseeable events caused by unexpected interruptions in ATS caused by 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 Jakarta FIR.

3.2 The following arrangements have been put in place to ensure that the management of the Contingency Plan provides for international flights to proceed in a safe and orderly fashion through the Upper Airspace of the Jakarta FIR.

Central Coordinating Committee

3.3 As soon as practicable in advance of, or after a contingency event has occurred, the Director General, DGCA shall convene the Central Coordinating Committee (CCC) comprised of representatives from:

1) Directorate General of Civil Aviation

2) PT (Persero) Angkasa Pura I (ATS provider for the Ujung Pandang FIR and operator of major airports in the eastern region)

3) PT (Persero) Angkasa Pura II (ATS provider for the Jakarta FIR and operator of major airports in the western region)

4) Indonesian Air Force

5) Ministry of Defense

6) Representative from the airlines committee

7) Meteorological and Geophysical Agency

8) Other participants as required

3.4 The CCC shall oversee the conduct of the Contingency Plan and in the event that the Jakarta ACC premises are out of service for an extended period, make arrangements for and facilitate the temporary relocation of the Jakarta ACC at the Ujung Pandang ACC and the restoration of ATS services. The terms of reference for the CCC will be determined by the DGCA.

3.5 Contact details of the members of the CCC are provided in **Appendix 1B**.

ATM Operational Contingency Group

3.6 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 specialized personnel from the following disciplines:

- Air traffic services (ATS)
- Aeronautical telecommunication (COM)
- Aeronautical meteorology (MET)
- Aeronautical information services (AIS)
- ATS equipment maintenance service provider

The mission of the AOCG shall include:

i) review and update of the Contingency Plan as required;

ii) keep up to date at all times of the contingency situation;

iii) organize contingency teams in each of the specialized areas;

iv) keep in contact with and update the ICAO Asia and Pacific Regional Office, operators and the IATA Regional Office;

v) exchange up-to-date information with the adjacent ATS authorities concerned to coordinate contingency activities;

vi) notify the designated organizations in Indonesia of the contingency situation sufficiently in advance and/or as soon as possible thereafter;

vii) take the necessary action for issuing NOTAMs according to the corresponding contingency situation, this plan or as otherwise needed (example NOTAMS are provided in **Appendix 1C**). If the situation is foreseeable sufficiently in advance, a NOTAM will be issued 48 hours in advance.

4. CONTINGENCY ROUTE STRUCTURE

4.1 In the event of disruption of the ATC services provided by Jakarta ACC, contingency routes will be introduced 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 assignment 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. The contingency route structure for international flights is detailed in **Appendix 1D.** Additional contingency routes will be introduced as and when circumstances require, such as in the case of volcanic ash clouds forming.

4.2 In regard to domestic operations, if circumstances dictate, all flights shall be temporarily suspended 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.

4.3 Aircraft on long-haul international flights and special operations (e.g. Search and Rescue (SAR), State aircraft, humanitarian flights, etc), shall be afforded priority in accordance with this plan.

4.4 International operators affected by the suspension of all operations from Indonesian 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 Indonesian airspace and route to the west around the Jakarta FIR via the Melbourne and Colombo FIRs to the Chennai and Kuala Lumpur FIRs and vice versa. The contingency routes to be used in this scenario will be provided by the ATS authorities concerned.

5. AIR TRAFFIC MANAGEMENT AND CONTINGENCY PROCEDURES

Reduced ATS and provision of flight information services (FIS)

5.1 During the contingency critical period, ATS including ATC, may not be available, particularly with regard to availability of communications and radar services. In cases where service are not available, a NOTAM will be issued providing the relevant information, including an expected date and time of resumption of service. The contingency plan provides for limited flight information and alerting services to be provided by adjacent ACCs.

5.2 The Indonesian airspace will be divided into two parts, North and South along latitude 05 00 00S then along the existing FIR boundary of the Jakarta and Ujung Pandang FIRs. FIS and flight monitoring will be provided by the designated ATS authorities for the adjacent FIRs on the contingency routes that enter their respective FIRs. A chart depicting the airspace arrangement is provided in **Appendix 1E**.

5.3 The primary means of communication will be by VHF or HF radio except for aircraft operating automatic dependent surveillance (ADS) and controller /pilot data link communication (CPDLC) systems. When CPDLC has been authorized for use by the relevant ATC authority, this will become the primary means of communication with HF as secondary. In the case of ADS automatic position reporting, this replaces voice position reporting and CPDLC or HF will become the secondary means. Details of the communication requirements are provided in **Appendix 1F.**

ATS Responsibilities

5.4 During the early stages of a contingency event, ATC may be overloaded and tactical action taken to reroute aircraft on alternative routes not included in this Plan.

5.5 In the event that ATS cannot be provided in the Jakarta FIR a NOTAM shall be issued indicating the following:

a) time and date of the beginning of the contingency measures;

b) airspace available for landing and overflying traffic and airspace to be avoided;

c) 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;

d) information on the provisions made for alternative services;

e) any changes to the ATS contingency routes contained in this Plan;

f) any special procedures to be followed by neighbouring ATS units not covered by this Plan;

g) any special procedures to be followed by pilots; and

h) any other details with respect to the disruption and actions being taken that aircraft operators may find useful.

5.6 In the event that the Indonesian International NOTAM Office is unable to issue the NOTAM, the (alternate) International NOTAM Office at Singapore and/or Brisbane will take action to issue the NOTAM of closure airspace upon notification by the DGCA or its designated authority, e.g. the ICAO Asia and Pacific Regional Office.

Aircraft Separation

5.7 Aircraft separation criteria will be applied in accordance with the *Procedures for Air Navigation Services-Air Traffic Management* (PANS-ATM, Doc 4444) and the *Regional Supplementary Procedures* (Doc 7030).

5.8 The longitudinal separation will be 15 minutes. However, this may be reduced to 10 minutes in conjunction with application of the Mach number technique in light of developments and as authorized by the DGCA by the appropriate OCA.

5.9 The route structure provides for lateral separation of 100 NM and in cases where this is less, and for crossing routes, a standard minimum vertical separation will be applied.

Flight level restrictions

5.10 Where possible, aircraft on long-haul international flights shall be given priority with respect to cruising levels.

Aircraft position reporting

5.11 Pilots will continue to make routine position reports in line with normal ATC reporting procedures.

VFR operations

5.12 VFR flights shall not operate in the Jakarta FIR if there are extensive disruptions to ATC facilities, except in special cases such as State aircraft, Medivac flights, and any other essential flights authorized by the DGCA.

Procedures for ATS Units

5.13 The ATS units providing ATC services will follow their unit emergency operating procedures and activate the appropriate level of contingency procedures in line with the Operational Coordination Agreement. These procedures include the following:

a) the Jakarta ACC on determining that ATS may be reduced due to a contingency event, will inform pilots by the controller responsible of the emergency condition and advise if it is likely that the ACC will be evacuated and ATS suspended. In the event of it becoming necessary to evacuate the ACC building, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication;

b) during the period the contingency procedures are in effect, flight plan messages must continue to be transmitted by operators to the Jakarta ACC and to the Ujung Pandang ACC via the AFTN using normal procedures;

Note: Depending on the phase of emergency and circumstances, the Indonesian NOF may be suspended and alternative AFTN service introduced, e.g. at the Jakarta Airport Tower and Ujung Pandang ACC. Also, the NOF of adjacent ATS authorities may be used to issue Indonesian NOTAMs.

c) on notification by DGCA, Indonesia, the ATS authorities operating the ACCs of the adjacent FIRs, viz. Chennai, Colombo, Kota Kinabalu, Kuala Lumpur, Ujung Pandang, Melbourne, and Singapore will activate the contingency procedures in accordance with their respective Operational Coordination Agreement;

d) the adjacent ACC responsible for aircraft entering for transit of the Jakarta FIR must communicate, not less than 30 minutes beforehand, the estimated time over 0500 S;

e) the ACC responsible for aircraft entering the Jakarta FIR will instruct pilots to maintain the last flight level assigned and speed (MACH number if applicable) while overflying the Jakarta FIR;

f) the ACC responsible will not authorize any change in flight level or speed (MACH number, if applicable) later than 10 minutes before the aircraft enters the Jakarta FIR, except in the case specified in h) below;

g) to facilitate arrival and departures at Singapore on the following route sectors, aircraft may climb and descend under the control of Singapore ACC in line with normal operating procedures:

- R469 - From Pekan Baru (PKU) to TAROS;
- G579 - From Palembang (PLB) to PARDI; and
- B470 - From ANITO to Pangkal Pinang (PKP)

h) the ACC responsible prior to aircraft entering the Jakarta FIR will instruct aircraft that they must communicate with the next (downstream) ATC unit 10 minutes before the estimated time of 0500 S; and

i) aircraft may also chose to avoid the Indonesia airspace, and the controlling authorities of the FIRs concerned will provide alternative contingency routes as appropriate and these will be published by NOTAM.

Transition to contingency scheme

5.14 During times of uncertainty when airspace closures seem possible, aircraft operators should be prepared for a possible change in routing while en-route, familiarization of the alternative routes outlined in this Contingency Plan, as well as those which may be promulgated by a State via NOTAM or AIP.

5.15 In the event of airspace closure that has not been promulgated, ATC should, if possible, broadcast to all aircraft in their airspace, what airspace is being closed and to stand by for further instructions.

5.16 ATS providers should recognize that when closures of airspace or airports are promulgated, individual airlines might have different company requirements as to their alternative routings. ATC should be alert to respond to any request by aircraft and react commensurate with safety.

Review of OCAs

5.17 The ATS providers concerned should review the effectiveness of current coordination requirements and procedures in light of contingency operations or short notice of airspace closure, and make any necessary adjustments to the Contingency Plan and OCAs.

6. PILOTS AND OPERATOR PROCEDURES

Filing of flight plans

6.1 Flight planning requirements for the Jakarta FIR are to be followed in respect to normal flight planning requirements contained in the Indonesia Aeronautical Information Publication (AIP) and as detailed at **Appendix 1G.**

Overflight approval

6.2 Aircraft operators must obtain normal over flight approval from the DGCA, Indonesia prior to operating flights through the Jakarta FIR.

Pilot operating procedures

6.3 Aircraft overflying the Jakarta FIR shall follow the following procedures:

a) all aircraft proceeding along the ATS routes established in this Contingency Plan will comply with the instrument flight rules (IFR) and will be assigned a flight level in accordance with the flight level allocation scheme applicable to the route(s) being flown as specified in Appendix 1D;

b) flights are to file a flight plan using the Contingency Routes specified in Appendix 1D, according to their airport of origin and destination;

c) pilots are to keep a continuous watch on the specified contingency frequency as specified in Appendix 1F and transmit in English position information and estimates line with normal ATC position reporting procedures;

d) pilots are to maintain during their entire flight time within Jakarta FIR, the flight level last assigned by the last ACC responsible prior to the aircraft entering the Jakarta FIR, and under no circumstances change this level and Mach Number, except in cases of emergency and for flight safety reasons. In addition, the last SSR transponder assigned shall be maintained or, if no transponder has been assigned, transmit on SSR code 2000;

e) aircraft are to reach the flight level last assigned by the responsible ACC at least 10 minutes before entering the Jakarta FIR or as otherwise instructed by the ATC unit in accordance with the OCA with Indonesia;

f) pilots are to include in their last position report prior to entering the Jakarta FIR, the estimated time over the entry point of the Jakarta FIR and the estimated time of arrival over the relevant exit point of the Jakarta FIR;

g) pilots are to contact the next adjacent ACC as soon as possible, and at the latest, ten (10) minutes before the estimated time of arrival over 0500 S;

h) whenever emergencies and/or flight safety reasons make it impossible to maintain the flight level assigned for transit of Jakarta FIR, pilots are to climb or descend well to the right of the centerline of the contingency route, and if deviating outside the Jakarta FIR, to inform immediately the ACC responsible for that airspace. Pilots are to make blind broadcast on 121.5 MHz of the relevant emergency level change message (comprising the aircraft call sign, the aircraft position, the flight levels being vacated and crossed, etc);

i) 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.

Interception of civil aircraft

6.4 Pilots need to be aware that in light of current international circumstances, a contingency routing requiring aircraft to operate off 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.

6.5 The Indonesian Air Force may intercept civil aircraft over the territory of Indonesia in the event that a flight may not be known to and identified by the military authority. In such cases, the ICAO intercept procedures contained in Annex 2 (reproduced in **Appendix 1H**) will be followed by the Indonesian Air Force, and 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.

6.6 If circumstances lead to the closure of the Indonesian airspace and no contingency routes are available through the Jakarta and Ujung Pandang FIRs, aircraft will be required to route around the Indonesian airspace. As much warning as possible will be provided by the appropriate ATS authorities in the event of the complete closure of Indonesian airspace.

6.7 Pilots need to continuously guard the VHF emergency frequency 121.5 MHz and should operate their transponder 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 discrete code assigned by ATC or select code 2000 if ATC has not assigned a code.

7. COMMUNICATION PROCEDURES

Degradation of Communication - Pilot Radio Procedures

7.1 When operating within the contingency airspace of the Jakarta FIR, pilots should use normal radio communication procedures where ATS services are available. These will be in accordance with the communication procedures in this Plan or as otherwise notified by NOTAM.

7.2 If communications are lost unexpectedly on the normal ATS frequencies, pilots should try the next applicable frequency, e.g. if en-route contact is lost then try the next appropriate frequency, that is, the next normal handover frequency. Pilots should also consider attempting to contact ATC on the last frequency where two-way communication had been established. In the absence of ~~no~~ communication with ATC, the pilot should continue to make routine position reports on the assigned frequency, and also broadcast positions on the specified contingency frequency.

Communication frequencies

7.3 A list of frequencies to be used for the contingency routes and the ATS units providing FIS and air-ground communication monitoring for the Jakarta FIR is detailed at Appendix 1F

8. AERONAUTICAL SUPPORT SERVICES

Aeronautical Information Services (AIS)

8.1 A NOTAM contingency plan will be developed to ensure continuation of the NOTAM service for the Jakarta FIR in support of contingency operations. The NOTAMs will establish the actions to be taken in order to reduce the impact of the failures in the air traffic services. The NOTAMs will also establish the necessary coordination and operational procedures that would be established before, during and after any Contingency phase.

8.2 NOTAM services will be provided by neighboring AIS authorities in accordance with OCAs.

Meteorological Services (MET)

8.3 The Indonesian Meteorological and Geophysical Agency (MGA) is the designated meteorological authority of Indonesia. MGA is also the provider of meteorological services for the international and domestic air navigation. In order to comply with the ICAO requirements on aeronautical meteorology specified in Annex 3, Meteorological Service for International Air Navigation and the ASIA/PAC Air Navigation Plan – Doc 9673, MGA should ensure regular provision of the following products and services:

a) aerodrome observations and reports – local MET REPORT and SPECIAL, as well as WMO-coded METAR and SPECI; METAR and SPECI should be provided for all international aerodromes listed in the AOP Table of ASIA/PAC Basic ANP and FASID Table MET 1A;

b) terminal aerodrome forecast - TAF as per the requirements indicated in FASID Table MET 1A;

c) SIGMET for the two Indonesian FIRs – Jakarta and Ujung Pandang; SIGMET should be issued by the meteorological watch offices (MWO) designated in FASID Table MET 1B – WIII and WAAA;

d) Information for the ATS units (TWR, APP, ACC) as agreed between the meteorological authority and the ATS units concerned;

e) Flight briefing and documentation as per Annex 3, Chapter 9.

8.4 It is expected that the Indonesia MET services would continue to be available in the event of an ATS contingency situation. However, should ATS services for the Jakarta FIR be withdrawn, timely MET information may not be immediately available to pilots in flight. Alternative means of obtaining up to date MET information concerning the Jakarta FIR will be provided to the extent possible through the adjacent ATS authorities. In addition, alternative means of OPMET information transmission to the regional OPMET data bank Singapore and both WAFCs (London and Washington), which offers available contingency for the global dissemination of OPMET information will be attempted, e.g. making use of the communication networks of communication service providers (ARINC and SITA).

9. SEARCH AND RESCUE

Notification and Coordination

9.1 ACCs involved in this Contingency Plan are required to assist as necessary to ensure that the proper Search and Rescue (SAR) authorities are provided with the information necessary to support downed aircraft or aircraft with an in-flight emergency in respect to the Jakarta FIR.

9.2 The SAR authority responsible for the Jakarta FIR is the Jakarta Rescue Coordination Centre (Jakarta RCC/Jakarta SAR Office)

IDD	62-21-5501512 and 3521111
Fax	62-21-5501513 and 34832884
AFTN	WIIIYKYX
Email	basarnas@indo.net.id

9.3 Each ACC shall assist as necessary in the dissemination of INCERFA, ALERFA and DETRESFA in respect to incidents in the Jakarta FIR.

9.4 In the event that the Jakarta ACC is not available, the responsibility for coordinating with the Jakarta RCC for aircraft emergencies and incidents involving the Jakarta FIR will be undertaken by the Ujung Pandang ACC. The CCC will take appropriate steps to ensure that SAR information is made available to the Jakarta RCC. The AOCG will also oversee SAR coordination and disseminate relevant contact information.

9.5 In the event that both Jakarta and Ujung Pandang ACCs are not available, there are 24 hour-alert SAR Offices (JRCCs) throughout Indonesia coordinated by the National SAR Agency (BASARNAS) to ensure the provision of SAR services in the Indonesian SSR.

INDONESIA AIR TRAFFIC MANAGEMENT

CONTINGENCY PLAN

UJUNG PANDANG FIR – PART II

PREPARED BY

Indonesian Contingency Plan Project Team

AIR TRAFFIC SERVICES DIVISION
DIRECTORATE GENERAL OF CIVIL AVIATION, INDONESIA

TABLE OF CONTENTS

	Page
Foreword	ii
Record of Amendments	iii
PART 2 – Contingency Plan for the Ujung Pandang FIR	1
Objective	1
States and FIRs Affected	1
Management of the Contingency Plan	2
Contingency Route Structure	3
ATM and Contingency Procedures	4
Pilots and Operator Procedures	6
Communication Procedures	8
Aeronautical Support Services	8
Search and Rescue	10
Appendix 2A – Contact Details	2A-1
Appendix 2B – Coordinating Bodies	2B-1
Appendix 2C – Specimen NOTAMs	2C-1
Appendix 2D – International Route Structure for Jakarta During Total Disruption	2D-1
Appendix 2E – Chart of Contingency Routes	2E-1
Appendix 2F – Contingency Frequencies for Control and/or Flight Monitoring	2F-1
Appendix 2G – Flight Planning	2G-1
Appendix 2H – ICAO Interception Procedures	2H-1
Signatories	

FOREWORD

This is the first edition of the Indonesian Air Traffic Management (ATM) Contingency Plan for Air Traffic Services (ATS) for the Upper Airspace of the Ujung Pandang Flight Information Region (FIR). The Contingency Plan will come into effect as determined by the Director General of the Directorate General Civil Aviation (DGCA), who is the authority for civil aviation operations in Indonesia.

This Contingency Plan (the Plan) is presented in two Parts: Part I for the Jakarta FIR, and Part II for the Ujung Pandang FIR. Part I of the Plan provides for the contingency arrangements to be introduced to permit the continuance of international flights to transit the Jakarta FIR, in the event that the air traffic and support services normally undertaken by the Jakarta Area Control Centre (ACC) should become partially or totally unavailable due to any occurrence that restricts flight operations. Similarly, Part II provides the contingency procedures for the Ujung Pandang ACC. In the event of both ACCs becoming inoperative, Parts I and II will be activated catering for the worst case scenario of a total disruption in ATS for the Upper Airspace of the Jakarta and Ujung Pandang FIRs.

The Indonesian territory, which comprises an archipelago of some 17,500 islands extending about 5000 kms mainly in an east/west direction, is located in a major earthquake zone with many active volcanoes. A major earthquake could strike at any time causing serious damage to civil aviation and air navigation services, facilities and infrastructure. With two major ACCs located at Jakarta for the west region and Ujung Pandang for eastern region, it is considered highly unlikely that both facilitates would be out of service simultaneously. However, in the event that one ACC becomes inoperable, and ATS became unavailable, it would take several days to relocate and operate ATS from the remaining ACC and restore a more normal level of service. During this interim period, flight operations in Indonesia would be severely restricted.

This Plan has been developed in close co-operation and collaboration with the civil aviation authorities responsible for the adjacent FIRs and representatives of the users of the airspace. The Indonesian Air Force also have been consulted and recognize the requirement for the Plan and the civil aviation procedures that apply thereto.

The Plan will be activated by promulgation of a NOTAM issued by the Indonesian International NOTAM Office (NOF) 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 the designated authority, as authorized by the DGCA. 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 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 provide for the safe and orderly continuation of international flights through Indonesian airspace.

Any proposed amendments to this plan shall be forwarded to:

Director General
Directorate General of Civil Aviation
Jl. Medan Merdeka Barat No. 8
Gedung Karsa Lt. 5
Jakarta, 10110, Indonesia
Tel: (62-21) 3505137
Fax: (62-21) 3505139
Email: dirjenud@indosat.net.id

RECORD OF AMENDMENTS

Amendment Number	Effective Date	Date Entered	Entered By	Paragraph/ Reference

PART II

ATM CONTINGENCY PLAN FOR INTERNATIONAL FLIGHTS TO TRANSIT THE UPPER AIRSPACE OF THE UJUNG PANDANG FIR

Effective: 1 August 2007, 0000 (UTC)

1. OBJECTIVE

1.1 The Air Traffic Management (ATM) Contingency Plan, Part II contains arrangements to ensure the continued safety of air navigation in the event of partial or total disruption of air traffic services in the Ujung Pandang FIR in accordance with ICAO Annex 11 ─ *Air Traffic Services,* Chapter 2, paragraph 2.29. The Contingency Plan provides the ATS procedures and contingency route structure using existing airways in most cases that will allow aircraft operators to transit the Ujung Pandang FIR.

1.2 This Contingency Plan does not address arrangements for aircraft arriving and departing at Indonesian airports or for domestic flight operations within the territory of Indonesia.

2. STATES AND FIRS AFFECTED

2.1 In the event that the Director General, DGCA activates this Contingency Plan, the civil aviation authorities of the adjacent FIRs will be notified in accordance with Operational Coordination Agreement (OCA) established between the States concerned. The adjacent States, FIRs and ACCs directly affected by this Contingency Plan are as follows:

a) Australia

Brisbane FIR (ACC)

b) Malaysia

Kota Kinabalu FIR (ACC)

c) United States of America

Oakland FIR (ACC)

d) Philippines

Manila FIR (ACC)

e) Papua New Guinea

Port Moresby FIR (ACC)

f) Indonesia

Jakarta FIR (ACC)

2.2 The contact details of the civil aviation authorities and organizations concerned are contained in **Appendix 2A.** These details should be kept up to date and relevant information provided to the DGCA as soon as practicable**.**

3. MANAGEMENT OF THE CONTINGENCY PLAN

3.1 The contingency measures set out in this Plan are applicable in cases of foreseeable events caused by unexpected interruptions in ATS caused by 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 Ujung Pandang FIR.

3.2 The following arrangements have been put in place to ensure that the management of the Contingency Plan provides for international flights to proceed in a safe and orderly fashion through the Upper Airspace of the Ujung Pandang FIR.

Central Coordinating Committee

3.3 As soon as practicable in advance of, or after a contingency event has occurred, the Director General, DGCA shall convene the Central Coordinating Committee (CCC) comprised of representatives from:

1) Directorate General of Civil Aviation

2) PT (Persero) Angkasa Pura I (ATS provider for the Ujung Pandang FIR and operator of major airports in the eastern region)

3) PT (Persero) Angkasa Pura II (ATS provider for the Jakarta FIR and operator of major airports in the western region)

4) Indonesian Air Force

5) Ministry of Defense

6) Representative from the airlines committee

7) Meteorological and Geophysical Agency

8) Other participants as required

3.4 The CCC shall oversee the conduct of the Contingency Plan and in the event that the Ujung Pandang ACC premises are out of service for an extended period, make arrangements for and facilitate the temporary relocation of the Ujung Pandang ACC at the Jakarta ACC and the restoration of ATS services. The terms of reference for the CCC will be determined by the DGCA.

3.5 Contact details of the members of the CCC are provided in **Appendix 2B**.

ATM Operational Contingency Group

3.6 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 specialized personnel from the following disciplines:

- Air traffic services (ATS)
- Aeronautical telecommunication (COM)
- Aeronautical meteorology (MET)
- Aeronautical information services (AIS)
- ATS equipment maintenance service provider

The mission of the AOCG shall include taking the following action:

i) review and update of the Contingency Plan as required;

ii) keep up to date at all times of the contingency situation;

iii) organize contingency teams in each of the specialized areas;

iv) keep in contact with and update the ICAO Asia and Pacific Regional Office, operators and the IATA Regional Office;

v) exchange up-to-date information with the adjacent ATS authorities concerned to coordinate contingency activities;

vi) notify the designated organizations in Indonesia of the contingency situation sufficiently in advance and/or as soon as possible thereafter; and

vii) issue NOTAMs according to the corresponding contingency situation, this plan or as otherwise needed (example NOTAMS are provided in **Appendix 2C**). If the situation is foreseeable sufficiently in advance, a NOTAM will be issued 48 hours in advance.

4. CONTINGENCY ROUTE STRUCTURE

4.1 In the event of disruption of the ATC services provided by Ujung Pandang ACC, contingency routes will be introduced 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 assignment 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 The contingency route structure for international flights is detailed in **Appendix 2D.** Additional contingency routes will be introduced as and when circumstances require, such as in the case of volcanic ash clouds forming.

4.3 In regard to domestic operations, if circumstances dictate, all flights shall be temporarily suspended 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.

4.4 Aircraft on long-haul international flights and special operations (e.g. Search and Rescue (SAR), State aircraft, humanitarian flights, etc), shall be afforded priority for levels at FL290 and above.

4.5 International operators affected by the suspension of all operations from Indonesian 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.

4.6 International operators may elect avoid the Ujung Pandang FIR to the east routing via the Brisbane, Port Moresby and Oakland FIRs to the Manila and Kota Kinabalu FIRs. The contingency routes to be used in this scenario will be provided by the ATS authorities concerned.

5. AIR TRAFFIC MANAGEMENT AND CONTINGENCY PROCEDURES

Reduced ATS and provision of flight information services (FIS)

5.1 During the contingency critical period, ATS including ATC, may not be available, particularly with regard to availability of communications and radar services. In cases where service are not available, a NOTAM will be issued providing the relevant information, including an expected date and time of resumption of service. The contingency plan provides for limited flight information and alerting services to be provided by adjacent ACCs.

5.2 The Indonesian airspace will be divided into two parts, North and South along latitude 05 00 00S then along the existing FIR boundary of the Jakarta and Ujung Pandang FIRs. FIS and flight monitoring will be provided by the designated ATS authorities for the adjacent FIRs on the contingency routes that enter their respective FIRs. A chart depicting the airspace arrangement is provided in **Appendix 2E**.

5.3 The primary means of communication will be by VHF or HF radio except for aircraft operating automatic dependent surveillance (ADS) and controller/pilot data link communication (CPDLC) systems. When CPDLC has been authorized for use by the relevant ATC authority, this will become the primary means of communication with HF as secondary. In the case of ADS automatic position reporting, this replaces voice position reporting and CPDLC or HF will become the secondary means. Details of the communication requirements are provided in **Appendix 2F.**

ATS Responsibilities

5.4 During the early stages of a contingency event, ATC may be overloaded and tactical action taken to reroute aircraft on alternative routes not included in this Plan.

5.5 In the event that ATS cannot be provided in the Ujung Pandang FIR a NOTAM shall be issued indicating the following:

a) time and date of the beginning of the contingency measures;

b) airspace available for landing and overflying traffic and airspace to be avoided;

c) 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;

d) information on the provisions made for alternative services;

e) any changes to the ATS contingency routes contained in this Plan;

f) any special procedures to be followed by neighbouring ATS units not covered by this Plan;

g) any special procedures to be followed by pilots; and

h) any other details with respect to the disruption and actions being taken that aircraft operators may find useful.

5.6 In the event that the Indonesian International NOTAM Office is unable to issue the NOTAM, the (alternate) International NOTAM Office at Singapore and/or Brisbane will take action to issue the NOTAM of closure airspace upon notification by the DGCA or its designated authority, e.g. the ICAO Asia and Pacific Regional Office.

Aircraft Separation

5.7 Aircraft separation criteria will be applied in accordance with the *Procedures for Air Navigation Services-Air Traffic Management* (PANS-ATM, Doc 4444) and the *Regional Supplementary Procedures* (Doc 7030).

5.8 The longitudinal separation will be 15 minutes. However, this may be reduced to 10 minutes in conjunction with application of the Mach number technique in light of developments and as authorized by the DGCA by the appropriate OCA.

5.9 The route structure provides for lateral separation of 100 NM and in cases where this is less, and for crossing routes, a standard vertical separation will be applied.

Flight level restrictions

5.10 Where possible, aircraft on long-haul international flights shall be given priority with respect to cruising levels.

Aircraft position reporting

5.11 Pilots will continue to make routine position reports in line with normal ATC reporting procedures.

VFR operations

5.12 VFR flights shall not operate in the Ujung Pandang FIR if there are extensive disruptions to ATC facilities, except in special cases such as State aircraft, Medivac flights, and any other essential flights authorized by the DGCA.

Procedures for ATS Units

5.13 The ATS units providing ATC services will follow their unit emergency operating procedures and activate the appropriate level of contingency procedures in line with the operational Letter of Agreement. These procedures include the following:

a) the Ujung Pandang ACC on determining that ATS may be reduced due to a contingency event, will inform pilots by the controller responsible of the emergency condition and advise if it is likely that the ACC will be evacuated and ATS suspended. In the event of it becoming necessary to evacuate the ACC building, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication;

b) during the period the contingency procedures are in effect, flight plan messages must continue to be transmitted by operators to the Jakarta ACC and to the Ujung Pandang ACC via the AFTN using normal procedures;

Note: The Ujung Pandang ACC.AFTN is routed through the Jakarta Airport AMSC for the NOF.

c) on notification by DGCA, Indonesia, the ATS authorities operating the ACCs of the adjacent FIRs, viz. Brisbane, Kota Kinabalu, Oakland, and Manila will activate the contingency procedures in accordance with their respective Operational Coordination Agreement;

d) the adjacent ACC responsible for aircraft entering for transit of the Ujung Pandang FIR must communicate not less than 30 minutes beforehand, the estimated time over 0500 S;

e) the ACC responsible for aircraft entering the Ujung Pandang FIR will instruct pilots to maintain the last flight level assigned and speed (MACH number if applicable) while overflying the Ujung Pandang FIR;

f) the ACC responsible will not authorize any change in flight level or speed (MACH number, if applicable) later than 10 minutes before the aircraft enters the Ujung Pandang FIR, except in the case specified in h) below;

g) the ACC responsible prior to aircraft entering the Ujung Pandang FIR will inform aircraft that they must communicate with the next (downstream) ATC unit 10 minutes before the estimated time of 0500 S; and

h) operators may also chose to avoid the Indonesia airspace, and the controlling authorities of the FIRs concerned will provide alternative contingency routes as appropriate and these will be published by NOTAM.

Transition to contingency scheme

5.14 During times of uncertainty when airspace closures seem possible, aircraft operators should be prepared for a possible change in routing while en-route, familiarization of the alternative routes outlined in this Contingency Plan, as well as those which may be promulgated by a State via NOTAM or AIP.

5.15 In the event of airspace closure that has not been promulgated, ATC should, if possible, broadcast to all aircraft in their airspace, what airspace is being closed and to stand by for further instructions.

5.16 ATS providers should recognize that when closures of airspace or airports are promulgated, individual airlines might have different company requirements as to their alternative routings. ATC should be alert to respond to any request by aircraft and react commensurate with safety.

Review of OCAs

5.17 The ATS providers concerned should review the effectiveness of current coordination requirements and procedures in light of contingency operations or short notice of airspace closure, and make any necessary adjustments to the Contingency Plan and OCAs.

6. PILOTS AND OPERATOR PROCEDURES

Filing of flight plans

6.1 Flight planning requirements for the Ujung Pandang FIR are to be followed in respect to normal flight planning requirements contained in the Indonesia Aeronautical Information Publication (AIP) and as detailed at **Appendix 2G.**

Overflight approval

6.2 Aircraft operators must obtain overflight approval from the DGCA, Indonesia prior to operating flights through the Ujung Pandang FIR.

Pilot operating procedures

6.3 Aircraft overflying the Ujung Pandang FIR shall follow the following procedures:

a) all aircraft proceeding along the ATS routes established in this Contingency Plan will comply with the instrument flight rules (IFR) and will be assigned a flight level in accordance with the flight level allocation scheme applicable to the route(s) being flown as specified in **Appendix 2D**;

b) flights are to file flight plan using the Contingency Routes specified in **Appendix 2D**, according to their airport of origin and destination;

c) pilots are to keep a continuous watch on the specified contingency frequency as specified in **Appendix 2F** and transmit in English position information and estimates in line with normal ATC position reporting procedures;

d) pilots are to maintain during their entire flight time within Ujung Pandang FIR, the flight level last assigned by the last ACC responsible prior to the aircraft entering the Ujung Pandang FIR, and under no circumstances change this level and Mach Number, except in cases of emergency and for flight safety reasons. In addition, the last SSR transponder assigned shall be maintained or, if no transponder has been assigned, transmit on SSR code 2000;

e) aircraft are to reach the flight level last assigned by the responsible ACC at least 10 minutes before entering the Ujung Pandang FIR or as otherwise instructed by the ATC unit in accordance with the OCA with Indonesia;

f) pilots are to include in their last position report prior to entering the Ujung Pandang FIR, the estimated time over the entry point of the Ujung Pandang FIR and the estimated time of arrival over the relevant exit point of the Ujung Pandang FIR;

g) pilots are to contact the next adjacent ACC as soon as possible, and at the latest, ten (10) minutes before the estimated time of arrival over 0500 S;

h) whenever emergencies and/or flight safety reasons make it impossible to maintain the flight level assigned for transit of Ujung Pandang FIR, pilots are to climb or descend well to the right of the centerline of the contingency route, and if deviating outside the Ujung Pandang FIR, to inform immediately the ACC responsible for that airspace. Pilots are to make blind broadcast on 121.5 MHz of the relevant emergency level change message (comprising the aircraft call sign, the aircraft position, the flight levels being vacated and crossed, etc);

i) 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.

Interception of civil aircraft

6.4 Pilots need to be aware that in light of current international circumstances, a contingency routing requiring aircraft to operate off 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.

6.5 The Indonesian Air Force may intercept civil aircraft over the territory of Indonesia in the event that a flight may not be known to and identified by the Indonesian Air Force. In such cases, the

ICAO intercept procedures contained in Annex 11, Attachment C (reproduced in **Appendix 2I**) will be followed by the military authority, and 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.

6.6 If circumstances lead to the closure of the Indonesian airspace and no contingency routes are available through the Jakarta and Ujung Pandang FIRs, aircraft will be required to route around the Indonesian airspace. As much warning as possible will be provided by the appropriate ATS authorities in the event of the complete closure of Indonesian airspace.

6.7 Pilots need to continuously guard the VHF emergency frequency 121.5 MHz and should operate their transponder 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 discrete code assigned by ATC or select code 2000 if ATC has not assigned a code.

7. COMMUNICATION PROCEDURES

Degradation of Communication - Pilot Radio Procedures

7.1 When operating within the contingency airspace of the Ujung Pandang FIR, pilots should use normal radio communication procedures where ATS services are available. These will be in accordance with the communication procedures in this Plan or as otherwise notified by NOTAM.

7.2 If communications are lost unexpectedly on the normal ATS frequencies, pilots should try the next applicable frequency, e.g. if en-route contact is lost then try the next appropriate frequency, that is, the next normal handover frequency. Pilots should also consider attempting to contact ATC on the last frequency where two-way communication had been established. In the absence of no communication with ATC, the pilot should continue to make routine position reports on the assigned frequency, and also broadcast positions on the specified contingency frequency.

Communication frequencies

7.3 A list of frequencies to be used for the contingency routes and the ATS units providing FIS and air-ground communication monitoring for the Ujung Pandang FIR is detailed at **Appendix 2F**.

8. AERONAUTICAL SUPPORT SERVICES

Aeronautical Information Services (AIS)

8.1 A NOTAM contingency plan will be developed to ensure continuation of the NOTAM service for the Ujung Pandang FIR in support of contingency operations. The NOTAMs will establish the actions to be taken in order to reduce the impact of the failures in the air traffic services. The NOTAMs will also establish the necessary coordination and operational procedures that would be established before, during and after any contingency phase.

8.2 NOTAM services will be provided by neighboring AIS authorities in accordance with OCAs.

Meteorological Services (MET)

8.3 The Indonesian Meteorological and Geophysical Agency (MGA) is the designated meteorological authority of Indonesia. MGA is also the provider of meteorological services for the international and domestic air navigation. In order to comply with the ICAO requirements on

aeronautical meteorology specified in Annex 3, Meteorological Service for International Air Navigation and the ASIA/PAC Air Navigation Plan – Doc 9673, MGA should ensure regular provision of the following products and services:

a) aerodrome observations and reports – local MET REPORT and SPECIAL, as well as WMO-coded METAR and SPECI; METAR and SPECI should be provided for all international aerodromes listed in the AOP Table of ASIA/PAC Basic ANP and FASID Table MET 1A;

b) terminal aerodrome forecast - TAF as per the requirements indicated in FASID Table MET 1A;

c) SIGMET for the two Indonesian FIRs – Jakarta and Ujung Pandang; SIGMET should be issued by the meteorological watch offices (MWO) designated in FASID Table MET 1B – WIII and WAAA;

d) information for the ATS units (TWR, APP, ACC) as agreed between the meteorological authority and the ATS units concerned;

e) Flight briefing and documentation as per Annex 3, Chapter 9.

8.4 It is expected that the Indonesia MET services would continue to be available in the event of an ATS contingency situation. However, should ATS services for the Ujung Pandang FIR be withdrawn, timely MET information may not be immediately available to pilots in flight. Alternative means of obtaining up to date MET information concerning the Ujung Pandang FIR will be provided to the extent possible through the adjacent ATS authorities. In addition, alternative means of OPMET information transmission to the regional OPMET data bank Singapore and both WAFCs (London and Washington), which offers available contingency for the global dissemination of OPMET information will be attempted, e.g. making use of the communication networks of communication service providers (ARINC and SITA).

9. SEARCH AND RESCUE

Notification and Coordination

9.1 ACCs involved in this Contingency Plan are required to assist as necessary to ensure that the proper Search and Rescue (SAR) authorities are provided with the information necessary to support downed aircraft or aircraft with an in-flight emergency in respect to the Ujung Pandang FIR.

9.2 The SAR authority responsible for the Ujung Pandang FIR is the Makassar Rescue Coordination Centre (Makassar RCC/Makassar SAR Office)

IDD	62-411-554111
Fax	62-411-554852
AFTN	WAAAYCYE
E-mail	basarnas@indo.net.id

9.3 Each ACC shall assist as necessary in the dissemination of INCERFA, ALERFA and DETRESFA in respect to incidents in the Ujung Pandang FIR.

9.4 In the event that the Ujung Pandang ACC is not available, the responsibility for coordinating with the Jakarta RCC for aircraft emergencies and incidents involving the Ujung Pandang FIR will be undertaken by the Jakarta ACC. The CCC will take appropriate steps to ensure that SAR information is made available to the Jakarta RCC. The AOCG will also oversee SAR coordination and disseminate relevant contact information.

9.5 In the event that both Jakarta and Ujung Pandang ACCs are not available, there are 24 hour-alert SAR Offices (JRCCs) throughout Indonesia coordinated by the National SAR Agency (BASARNAS) to ensure the provision of SAR services in the Indonesian SSR.
