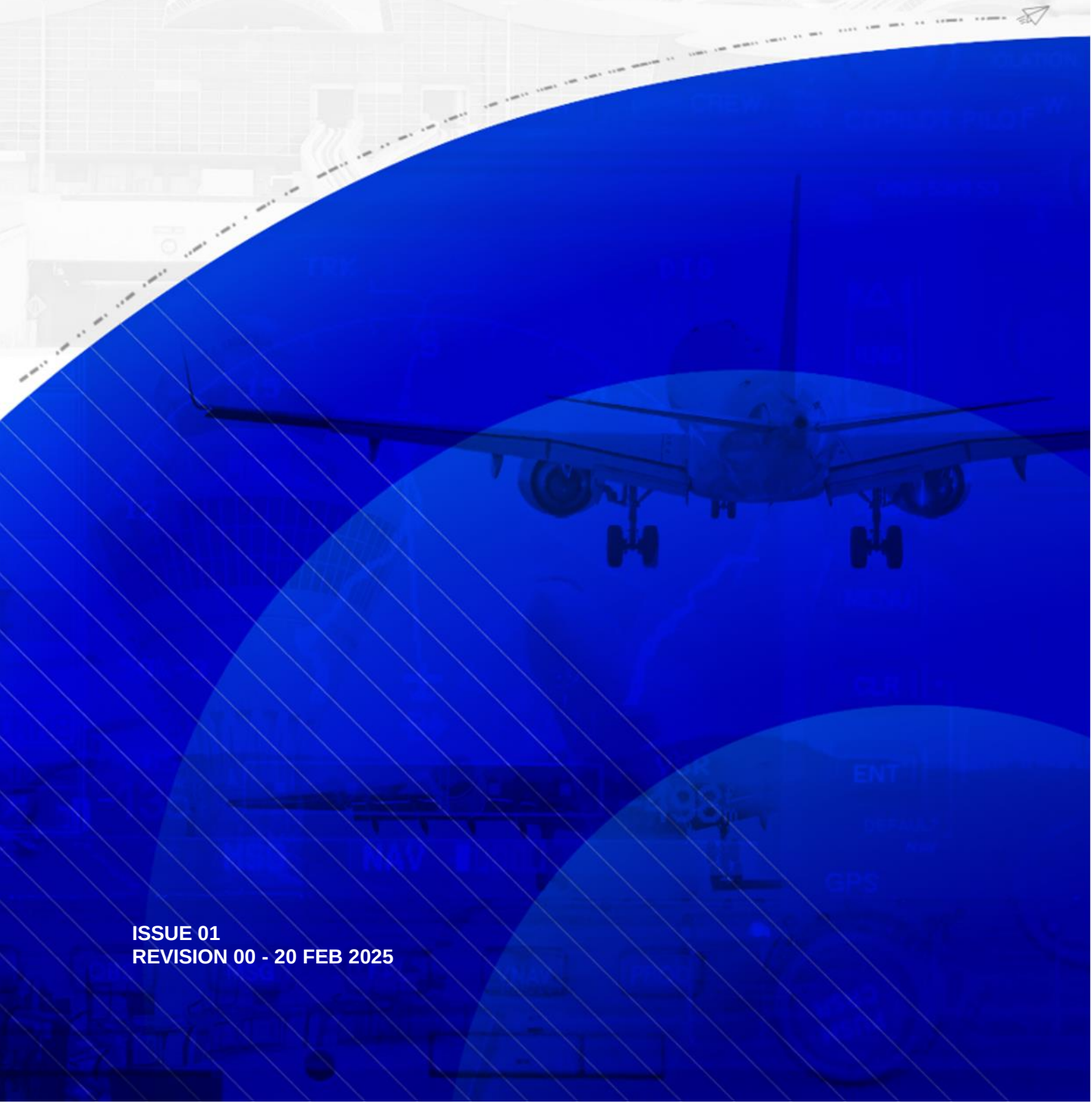
AIR NAVIGATION SERVICES IMPLEMENTATION PLAN – 1 VOLUME II

MALAYSIA ATM CONTINGENCY LEVEL 2 THE ARRANGEMENT

CIVIL AVIATION AUTHORITY OF MALAYSIA



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Introduction

The Malaysia Air Traffic Management (ATM) Level 2 The Arrangements and Procedures is one of a series of Air Navigation Services Implementation Plan (ANSIP) issued by the Air Navigation Services Divisions. It contributes to the national contingency planning for Malaysia in alignment with the provisions of Annex 11 and Civil Aviation Authority Malaysia (CAAM) Civil Aviation Directives (CAD) 11 to the Convention on Civil Aviation, as well as ICAO Doc 9426 (ATS Planning Manual) and Doc 9673 (Asia and Pacific Regions Air Navigation Plan), including the Asia/Pacific Region ATM Contingency Plan. This Arrangement, along with any necessary activation, is authorized by the CAAM.

This Malaysia ATM Contingency Level 2 The Arrangements and Procedures (herewith indicated as the Arrangement) provide the safe continuation of international air traffic through Kuala Lumpur (KL) FIR, Kota Kinabalu (KK) FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) during periods when ATS may be disrupted or unavailable, or when airspace may be affected by volcanic ash clouds, radioactive clouds, severe weather events or military activity.

This Arrangement has been developed in close cooperation and collaboration with airspace users and military authorities for KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1). This Arrangement provides the ATS procedures and contingency route structure using existing airways in most cases that will allow for domestic flight operations within the jurisdiction of the KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1).

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Chief Executive Officer
Civil Aviation Authority of Malaysia

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Record of Revisions

Revisions to this document shall be made by authorised personnel only. After inserting the revision, enter the required data in the revision sheet below. The 'Initials' must be signed off by the personnel responsible for the change.

Iss/Rev No.	Revision Date	Revision Details	Initials

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Summary of Changes

Iss/Rev No.	Item No.	Revision Details

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Table of Contents

1 General

1.1 Objective

1.1.1 This Arrangement details arrangements to ensure the continued safety of air navigation in the event of partial disruption of air traffic services in the KL Area Control Centre (ACC) area of responsibility, KK ACC area of responsibility and/or KCH Area Control Centre (ACC) area of responsibility, in accordance with ICAO Annex 11 / CAAM CAD 11 - Air Traffic Services.

1.1.2 This Arrangement provides the ATS procedures and contingency route structure using published ATS routes, where practicable, that will allow aircraft operators to transit KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) during the contingency period.

1.1.3 This Arrangement relate to the area control service (i.e. air traffic control service for controlled flights in control areas) within the jurisdiction of the KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1).

1.1.4 This Arrangement reflects the formal agreement between the States in their respective Air Traffic Services Coordination Procedures (ATSCP) or contingency agreement.

1.2 States, FIRs and ATSUs Affected

1.2.1 In the event this Arrangement is activated, adjacent and/or related civil aviation authorities will be notified in accordance with the coordination procedures established between the States concerned.

1.2.2 The adjacent ATSUs directly affected by this Arrangement are as follows:

a) KL FIR:

States	FIR/CTR	ACC/OCC/APP
India	Chennai FIR	Chennai Oceanic Control Centre (OCC)
Indonesia	Jakarta FIR	Jakarta ACC
Singapore	Singapore FIR	Singapore ACC
Thailand	Bangkok FIR	Bangkok ACC
Vietnam	Ho Chi Minh FIR	Ho Chi Minh ACC

b) KK FIR:

States	FIR/CTR	ACC/OCC/APP
Brunei	Brunei CTR	Brunei APP
Indonesia	Jakarta FIR	Jakarta ACC
	Ujung Pandang FIR	Ujung Pandang ACC

Philippines	Manila FIR	Manila ACC
Singapore	Singapore FIR	Singapore ACC

1.3 Level of ATM Contingency

1.3.1 This Arrangement will have an effect on external air navigation service providers and requires pre-existing coordination and agreement between states.

1.4 Plan Testing and Review

1.4.1 This Arrangement shall be tested in table top exercises, where necessary, including telephone or web-based conference facilities, at least once per three (3) years.

1.4.2 ATC simulation testing of the Arrangement should occur at least once per three (3) years and whenever required by the ACG.

1.4.3 A full review of this Arrangement shall be conducted at least once every three (3) years. Provisions for reviewing airspace, ATS route, coordination, and communications details of this Arrangement shall be included in relevant ATS airspace, data, and facility implementation plans.

1.4.4 A preliminary Post Activation Review (PAR) report within 28 days of any activation or testing of this Arrangement, including any recommendation to address deficiencies and implement improvements in this Arrangement.

1.4.5 A more comprehensive PAR report should be prepared for major contingency events, or any contingency event involving an air safety incident investigation.

1.5 Definition of Terms

Air Traffic Controller or simply Controller is variously used to mean all Air Traffic Control Officers, Assistant Air Traffic Control Officers and Trainee Air Traffic Controllers.

SIGMET (Significant Meteorological Information) is a weather advisory issued by meteorological authorities to provide critical information about significant weather phenomena that could affect aviation safety. It typically includes details about severe turbulence, thunderstorms, volcanic ash, and other hazardous conditions over a specified area. SIGMETs are essential for pilots and air traffic control to ensure safe flight operations.

1.6 Acronyms and Abbreviations

ACC = Area Control Centre

ACG = ATM Contingency Group

ADS-C = Automatic Dependent Surveillance - Contract

AIP = Aeronautical Information Publication

AIS = Aeronautical Information Service

ANS	= Air Navigation Services
ANSIP	= Air Navigation Services Implementation Plan
ANSP	= Air Navigation Services Provider
APAC	= Asia and Pacific
ARCC	= Aeronautical Rescue Coordination Centre
ARSC	= Aeronautical Rescue Sub-Coordination Centre
ATC	= Air Traffic Control
ATCC	= Air Traffic Control Centre
ATM	= Air Traffic Management
ATS	= Air Traffic Services
ATSCP	= Air Traffic Services Coordination Procedures
ATSU	= Air Traffic Services Unit
CAAM	= Civil Aviation Authority Malaysia
CAD	= Civil Aviation Directives
CCC	= Contingency Coordination Committee
CCT	= Contingency Coordination Team
CEO	= Chief Executive Officer
CNS	= Communication, Navigation and Surveillance
CPDLC	= Controller Pilot Data Link Communication
CTR	= Control Zone
FIR	= Flight Information Region
FIS	= Flight Information Services
FLAS	= Flight Level Allocation System
GNSS	= Global Navigation Satellite System
HF	= High Frequency
IATA	= International Air Transport Association
ICAO	= International Civil Aviation Organization
JAMCC	= Joint Air Management and Coordination Centre
JATCC	= Joint Air Traffic Control Centre
KCH	= Kuching
KK	= Kota Kinabalu
KL	= Kuala Lumpur
MET	= Meteorological Department
MWO	= Meteorological Watch Office
NOTAM	= Notice to Airmen

OCC = Oceanic Control Centre

PAR = Post Activation Review

POC = Point of Contact

RO = Regional Office

RVSM = Reduced Vertical Separation Minima

SAR = Search and Rescue

SRR = Search and Rescue Region

SSR = Secondary Surveillance Radar

TMA = Terminal Area Approach

TIBA = Traffic Information Broadcast by Aircraft

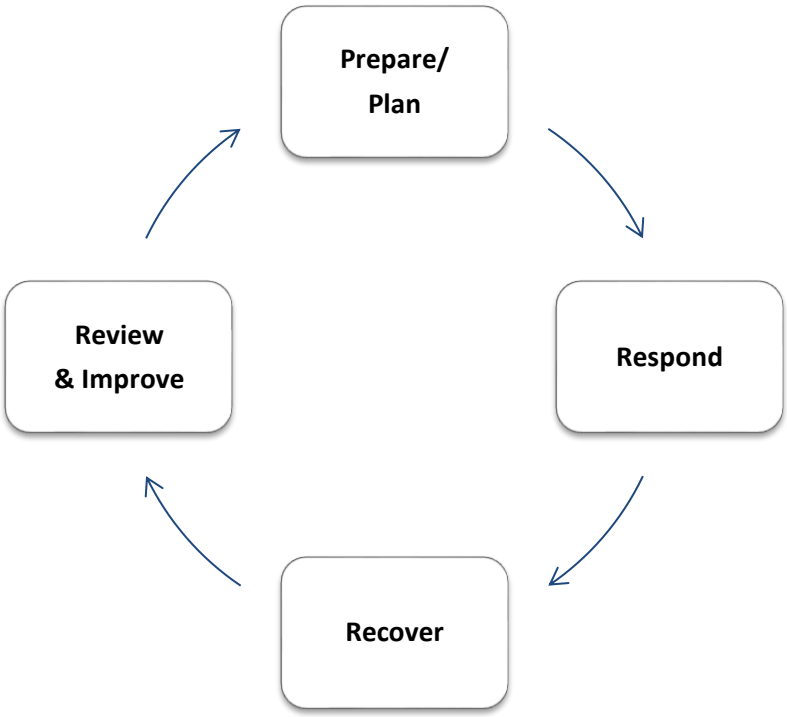
VAC = Volcanic Ash Cloud

VHF = Very high Frequency

2 ATM Contingency Management Cycle

2.1 Overview

2.1.1 There are four primary criteria within the ATM Contingency Management cycle that is specified for this Arrangement.



2.1.2 This Arrangement will address the planning and preparation:

a) To develop, authorise and agree between related states;

b) To collaborate with airspace users, military authorities, and adjacent FIRs; and

c) To ensure the continuity of the safe and orderly flow of international air traffic.

2.1.3 This Arrangement will address the timely response such as:

a) Airspace arrangements;

b) ATS Contingency Procedures;

c) Pilots and Operator Procedures;

d) Communication Procedures;

e) Aeronautical Support Services; and

f) ATC readiness/training.

2.1.4 This Arrangement will address the recovery procedure/process during the contingency period.

2.1.5 This Arrangement will address the Review and Improvement process such as:

a) Post Activation Review (PAR); and

b) Revision of Contingency Arrangements and Procedures for Improvement.

3 Contingency Management Structure

3.1 Overview

3.1.1 The Arrangement measures set out in this document 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 disrupt the provision of ATS and/or of the related support services in KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1).

3.2 ATM Contingency Group (ACG)

3.2.1 ACG may comprise the following members:

No	Function	Organisation/Representatives
1	ANSP (CAAM) Leader	Deputy CEO (Operations)
		ANS Regulatory Division: 1. Director 2. Deputy Director ANSA
		ANS Operations Division: 1. Director 2. Deputy Director KLACC 3. Deputy Director AIS 4. Deputy Director SAR
		Sabah Regional: 1. Director 2. Deputy Director Operations
		Sarawak Regional: 1. Director 2. Deputy Director Operations
		Semenanjung Regional: 1. Director 2. Deputy Director Operations
		ANS Technical Division: 1. Director 2. Deputy Director CNS 3. Deputy Director ATM 4. State ICAO Contingency Coordination Team (CCT) Point of Contact (POC)
		Director ANS Safety Division:
		Duty Watch Manager(s)
		Duty Watch Supervisor(s)
2	Military Liaison Officer	Royal Military Airforce: 1. JAMCC

		2. JATCC
3	CNS/ATM equipment maintenance service provider	Advanced Air Traffic Systems (M) Sdn. Bhd. (AAT)
		TM Technology Services Sdn. Bhd. (TM)
		Novatis Resources Sdn. Bhd.
		Crystal Solaris Sdn. Bhd.
4	Meteorological Service provider	MET Malaysia - National Aviation Meteorological Centre (PMPN)
		Pusat Operasi Cuaca dan Geofizik Nasional (POCGN)
5	Airport Operators	Malaysia Airports Holdings Berhad (MAHB)
		Senai Airport Terminal Services (SATS)
6	Airlines Operator	TBC
		TBC

3.2.2 ACG functions should include but not be limited to the following:

a) Convene rapidly to exchange information to support the assessment of the situation responding to a contingency event;

b) Identify the playbook and contingency level to apply and activate the contingency arrangement and procedures;

c) Initiate the implementation of the associated contingency arrangements and procedures;

d) Advise and coordinate with adjacent ACCs, the ICAO Asia and Pacific (APAC) Regional Office (RO), and airspace users;

e) Inform the Contingency Coordination Committee (CCC) of the situation and indicate actions required from the CCC, if any;

f) Carry out activities and planning set by CCC (if required);

g) NOTAMs issuance in accordance with this Arrangement or as otherwise required by the particular contingency situation. NOTAMs should be issued 48 hours in advance if the contingency situation is sufficiently foreseeable;

h) Keep updated on the contingency situation at all times to the relevant stakeholder(s) and organisation(s);

i) Responsible for overseeing daily operations during contingency arrangements and procedures activation;

j) Review and update the contingency management, as required;

k) Exchange up-to-date information with the adjacent ATS authorities concerned to coordinate contingency measures;

l) Notify the designated organisations of the contingency situation sufficiently in advance and/or as soon as possible thereafter;

m) Prepare actions for the recovery-getting back to normal operations;

n) Assess and confirm if the situation is rectified and normal operations can be resumed;

o) Initiate the deactivation of the contingency arrangements and procedures or advise the CCC, if established, to do so; and

p) Cancel NOTAMs related to the contingency situation.

3.3 Contingency Coordination Committee (CCC)

3.3.1 CCC Representatives are as follows:

No	Organisation	Representatives
1	CAAM - Leader	CEO
2	Ministry of Transport Malaysia (MOT)	Under Secretary (Aviation)
3	Malaysian Armed Forces	Chief of Air Force
4	Malaysian Meteorological Department (MET Malaysia)	Director

3.3.2 CCC functions should include but not be limited to the following:

a) Convene rapidly to exchange information and provide high-level support to the ACG in responding to and managing contingencies, as required;

b) Take actions, such as mobilising resources or means, for the provisions of ATS (i.e. relocation of staff, disaster management etc);

c) Facilitate coordination between civil and military for the management of the airspace; and

d) Coordinate internally and with the States and International Organizations concerned for actions that require high-level decision-making (i.e airspace closure), as necessary.

3.4 The detailed contact list can be found in Appendix A, Appendix B and Appendix C.

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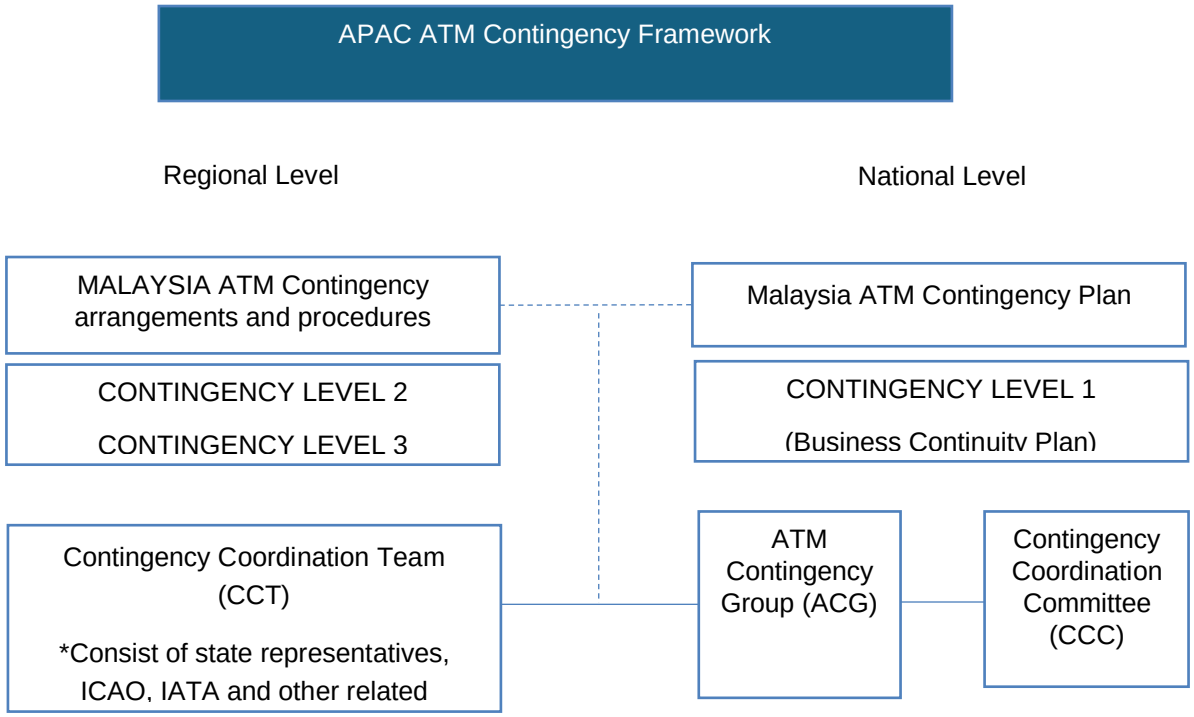
4 Regional and National ATM Contingency Framework

4.1 Scope and Scale of Contingency Response and Event:

a) Contingency Level 1 - contingency within the State's delineated FIR(s) that can be managed locally;

b) Contingency Level 2 - cross-border contingency requiring collaboration between two adjacent States; and

c) Contingency Level 3 - sub-regional or regional contingency requiring collaboration of more than two States.



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5 Contingency Matrix Table

5.1 Overview

5.1.1 The contingency matrix table is indicated as follows:

	ATS NORMAL	**ATS DEGRADED**	**NO ATC** (ONLY FIS AVAILABLE)	**NO ATS**
AIRSPACE AVAILABLE	Normal Operation	PLAYBOOK 1	PLAYBOOK 4	PLAYBOOK 5
AIRSPACE LIMTED	PLAYBOOK 2	PLAYBOOK 3		
AIRSPACE NOT AVAILABLE	PLAYBOOK 6			

5.1.2 Examples of contingency events according to the playbook are as follows:

5.1.2.1 Playbook 1 (traffic will have access to the whole FIR; however, ACC will have a limitation in providing services as normal):

a) Industrial action;

b) Pandemic;

c) Earthquake;

d) Nuclear emergency;

e) Adverse weather;

f) ATM system failure;

g) GNSS spoofing; and

h) Any other events that are deemed appropriate.

5.1.2.2 Playbook 2 (traffic would not have access to the affected portion of the airspace):

a) Volcanic Ash;

b) Nuclear emergencies;

c) Military activity;

d) Weather condition; and

e) Any other events that are deemed appropriate.

5.1.2.3 Playbook 3 (the need to circumnavigate traffic away from the affected airspace taking into consideration the limitation of the ATS):

a) Volcanic Ash;

b) Nuclear emergencies;

c) Military activity;

d) ATM system failure;

e) Adverse weather; and

f) Any other events that are deemed appropriate.

5.1.2.4 Playbook 4 (Airspace is available or limited but no ATC, only flight information services can be provided. Provision of ATC is affected, but other ATS will remain available or arranged for):

a) Pandemic;

b) National security;

c) Industrial action;

d) ATM system failure; and

e) Any other events that are deemed appropriate.

5.1.2.5 Playbook 5 (no ATS could be provided, however, traffic might still have access or operate within, to or from the affected FIR):

a) Complete loss of facility operational capability;

b) Total loss of manpower; and

c) Any other events that are deemed appropriate.

5.1.2.6 Playbook 6 (Airspace is not available or avoided – Airspace Closure):

a) Adverse weather;

b) Military activities;

c) Natural disaster; and

d) Any other events that are deemed appropriate.

6 Probability - Impact Matrix Table

6.1 Overview

6.1.1 Probability – Impact Matrix table is a visual tool used to prioritise potential risks based on their level of probability and impact.

6.1.2 This table is an essential tool to be used by ACG and CCC during risk assessment processes to systematically evaluate and manage the situation appropriately. Using this tool, ACG and CCC will be able to appropriately evaluate the level of contingency plan to activate.

IMPACT \ LIKELIHOOD	Unlikely	Possible	Likely	Very Likely
Catastrophic	M	H	C	C
Significant	M	M	H	C
Moderate	L	M	M	H
Low	L	M	M	M

Note1. -
Catastrophic: ATS Service not Available/ ANS Service could not be provided
Significant: ATS Service is severely impacted, limited ATS Service available (Less than 30%)
Moderate: ATS Service available but noticeably impacted, limited ATS Service available (30-70%)
Low: ATS Service available and mildly impacted, limited ATS service available (not less than 70%)

Note2. -
Unlikely: Low/very slim chances for this risk to occur
Possible: Fifty-fifty chances for this risk to occur.
Probable: Good chances for this risk to occur
Very likely: You can bet this risk will occur at some point

Note3. -
L: LOW (ATM Contingency Level 1)
M: MEDIUM (ATM Contingency Level 1/Level 2)
H: HIGH (ATM Contingency Level 1/Level 2)
C: CRITICAL (ATM Contingency Level 2)

6.2 Example: Playbook 4 (ATM system failure)

6.2.1 ACG will evaluate the situation using the Probability – Impact Matrix table to determine the appropriate level of contingency.

6.2.2 If the ATM system failure is expected to recover and the risk is MEDIUM, Contingency Level 1 could be activated by ACG.

6.2.3 If the ATM system failure is expected to be prolonged and degrade, and evaluation of the risk is CRITICAL, Contingency Level 2 should be activated by ACG.

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7 Air Traffic Management and Contingency Procedures

7.1 Reduced ATS and Provision of Flight Information Services (FIS)

7.1.1 During the activation of this Arrangement period, limitation of airspace usage and unavailability, as well as of ATS may be degraded or unavailable (particularly communications and ATS surveillance services).

7.1.2 This condition warrants NOTAM issuance and shall consist of relevant information.

7.1.3 During the early stages of a contingency event, whereby KL ACC, KK ACC and/or KCH ACC are unable to provide ATS (including ATC), some areas within the designated airspace may be delegated to relevant ATSUs for the provision of ATS to temporarily provide recovery services to aircraft at the immediate onset of a contingency situation.

7.1.4 Management of air traffic prior to entering KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) will be provided by adjacent ATC authority in accordance with the Arrangement agreed upon in respective ATSCP or contingency agreement.

7.1.5 A chart depicting the airspace arrangement (conditional routes) is provided in Appendix H and Appendix I.

7.2 Exclusions

7.2.1 Non-scheduled and VFR flights shall not operate in KL ACC, KK ACC and/or KCH ACC area of responsibility during contingency operations, except for State aircraft, Search and Rescue (SAR), Medivac flights, flying doctor service and any other flights as authorised by the CCC.

7.3 Contingency Route (CR) and Flight Level Structure.

7.3.1 In the event of limited/unavailability of airspace and/or disruption of the ATC services provided by KL ACC, KK ACC and/or KCH ACC, contingency routes will be specified to ensure the safety of the flight and to facilitate limited flight operations commensurate with the prevailing conditions.

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

7.3.3 The contingency route structure applicable to international air traffic in transit across the KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) are detailed in Appendix H and Appendix I.

7.3.4 Additional unpublished contingency routes may be developed tactically by the ACG and promulgated by NOTAM as and when circumstances require, such as in the case of volcanic ash cloud, radioactive cloud or severe weather event.

7.3.5 As and where dictated by circumstances, domestic flights and international flights that have not yet departed may be temporarily suspended until a full assessment of the prevailing conditions has been determined and sufficient air traffic services restored. Decision to curtail or restart these operations will be assessed by ACG and recommended to CCC.

7.3.6 Aircraft on long-haul international flights and special operations (e.g. Search and Rescue (SAR), State aircraft, humanitarian flights, etc.) shall be afforded priority.

7.3.7 As and where dictated by circumstances, international air traffic intending to land at any airport in Kuala Lumpur FIR and/or Kota Kinabalu FIR but have not yet entered Kuala Lumpur FIR and/or Kota Kinabalu FIR, may be temporarily refused until a full assessment of the prevailing conditions has been determined and sufficient air traffic services restored.

7.3.8 International operators affected by the suspension of all operations from airports in KL FIR and/or KK FIR 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 which have received such approval may be required to flight plan via domestic routes to join international contingency routes.

7.4 TIBA Frequency

7.4.1 Traffic Information Broadcast by Aircraft (TIBA) procedures shall apply in the case of partial or total disruption of air traffic services in KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1).

7.4.2 TIBA frequencies are as follows:

FIR	Primary
Kuala Lumpur FIR	134.65 MHz
Kota Kinabalu FIR	128.75 MHz

7.4.3 Details of TIBA procedures and communications requirements are provided in Appendix J.

7.5 ATS Responsibilities

7.5.1 During the early stages of a contingency event, controller's workload may be increased, and tactical action may be temporarily taken.

7.5.2 The following flow and capacity mitigation may be applied during the activation of the contingency arrangements and procedures.

a) Issuing NOTAM;

b) Re-routing;

c) Separation - Miles-in-trail (MIT);

d) Separation - Minutes-in-trail (MINIT);

e) Level Restrictions;

f) Airborne Holding;

g) Ground Stop (GS);

h) Ground Delay Program (GDP);

i) Tunnelling;

j) Fix Balancing;

k) Airspace Classification; or

l) any other tactical action deemed suitable.

7.5.3 NOTAM

7.5.3.1 In the event that ATS cannot be provided, a NOTAM shall be issued indicating the following:

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

b) Airspace available for 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) Applicable ATS routes, AIP-published contingency routes, or tactically defined contingency routes;

f) Any special procedures to be followed by neighbouring ATSUs not covered by this Arrangements;

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.

7.5.3.2 NOTAM samples are provided in Appendix F.

7.5.3.3 The International NOTAM Office at WMKKYNYX will take action to issue the contingency NOTAM upon notification by ATSUs.

7.5.3.4 In the event that International NOTAM Office is unable to issue the NOTAM, Adjacent States International NOTAM Office will take action to issue the NOTAM upon notification by CAAM or its designated authority, e.g. the ICAO Asia and Pacific (APAC) Regional Office (RO).

7.5.4 Aircraft Separation

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

7.5.4.2 The minimum longitudinal separation will be 15 minutes. However, this may be reduced to 10 minutes in conjunction with application of the Mach number technique where authorised by CAAM and agreed upon in the appropriate ATSCP or other Contingency Arrangement.

7.5.4.3 The minimum vertical separation of 1,000 FT will be applied. Non RVSM-approved aircraft shall not operate in contingency airspace.

7.5.5 Flight Level Restrictions

7.5.5.1 Where possible, special operations (e.g. Search and Rescue (SAR) flights, state aircraft, humanitarian flights, etc) shall be given priority with respect to cruising levels.

7.5.6 Airspace Classifications

7.5.6.1 Depending on the degree of disruption, airspace classifications may be changed to reflect the reduced level of services.

7.5.6.2 Changes to airspace classification will be notified by NOTAM.

7.5.7 Aircraft Position Reporting

7.5.7.1 The primary means of communication will be by VHF or HF radio.

7.5.7.2 CPDLC will become the secondary means of communication for aircraft with Automatic Dependent Surveillance - Contract (ADS-C) and Controller-Pilot Data Link Communications (CPDLC) systems.

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

7.5.8 Procedures for ATSUs

7.5.8.1 The ATSUs providing ATC services will follow their respective unit emergency operating procedures and activate the appropriate level of contingency procedures in line with the Plan. These procedures include the following:

a) Where ATS provided by the KL ACC, KK ACC and/or KCH ACC may be reduced or disrupted by a short-notice contingency event, controllers will inform pilots of the emergency condition and provide appropriate information pending the issuance of NOTAM;

b) 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;

c) During the period this Arrangement is in effect, flight plan and other aircraft movement messages must continue to be transmitted by operators to KL ACC, KK ACC and/or KCH ACC via the Aeronautical Fixed Telephony Network (AFTN) using normal procedures;

d) Prior to entry to KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) during contingency operations, prior authorisation must be obtained from CAAM, and flights must comply with instructions issued by the ATC units responsible for the contingency airspace;

e) Upon notification by ACG, the ATS authorities operating at adjacent ACC (refer to details in para 5.2) will activate the contingency procedures in accordance with this Arrangement;

f) Coordination of aircraft boundary estimates and flight levels by the adjacent ATC authority responsible for aircraft entering KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) shall be in accordance with respective Air Traffic Services Coordination Procedures (ATSCP) or agreements;

g) Adjacent ACC responsible will instruct aircraft to reach the flight level assigned as per this Arrangements at least 10 minutes prior to entering Kuala Lumpur FIR;

h) Adjacent ACC responsible for aircraft entering KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) will not authorise any change in route, flight level or speed unless specifically authorised by the ATSU normally responsible for the affected airspace, or under this Arrangement;

i) Adjacent ACC responsible prior to aircraft entering the KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) will inform aircraft that they must establish contact with the first ATSU after transiting the Kuala Lumpur FIR not less than 10 minutes before the estimated time of entry to the next FIR; and

j) Aircraft may also choose to avoid the KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) by flight planning via published ATS routes or via any alternative contingency ATS routes

promulgated by NOTAM issued by the controlling authorities of the adjacent FIRs.

7.5.9 Transition to and from Contingency Operations

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

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

7.5.9.3 ATSUs concerned should recognise that when closures of airspace or airports are promulgated, individual airlines might have different company requirements as to their alternative routings. Controllers should be alert to respond to any request by aircraft and react commensurate with safety.

7.5.10 Transfer of Control and Coordination

7.5.10.1 Unless otherwise specified, transfer of control and communication should be at the common TMA/CTR/FIR boundary between ATSUs/ANSP unless there is a mutual agreement and authorisation given to use the alternative transfer of control points.

7.5.11 Coordinated Recovery from ATS Contingency Operations

7.5.11.1 The recovery from any contingency operation can be just as difficult to safely manage as the initial onset of the contingency situation, particularly when involving multiple ANSPs/FIRs. To avoid ad hoc recovery actions that place aircraft and/or the service provided by adjacent ATSUs in an unsafe or unmanageable situation, it is important to consider, coordinate and agree on recovery actions.

7.5.11.2 Establishing, in coordination with the ANSPs responsible for the identified Core Contingency FIRs (i.e. those FIRS that have responded to the contingency situation by making changes to traffic flows, use of ATS routes, Flight Level Allocation Schemes (FLAS) and separation minima or spacing, or other procedures) an agreed time of resumption of normal operations or agreed resumption time (i.e. the common time on any day when the traffic situation is most suitable for contingency recovery);

7.5.11.3 Providing prior notification of resumption of normal operations at the agreed resumption time via NOTAMs promulgated not less than 6-12 hours (or longer where necessary) before the resumption time, noting that aircraft operators are normally flight planning six hours or more before flight, although there is a need

to take into account any long haul and ultra long haul flights that may be already airborne). The NOTAM template for notification of resumption is included in Appendix

7.5.11.4 Specify, through coordinated contingency recovery planning and associated NOTAMS that:

a) the only that may plan via non-contingency routes are those flights that:

i. with Expected Off-Block Times (EOBT) after the agreed resumption time; or

ii. that will enter the first of any of the Core Contingency FIRs at or after the agreed resumption time;

b) no re-filing of FPL routes or requests for direct tracking are to be made by airborne flights within the Core Contingency FIRs at the time of resumption to normal operations, although ATC may tactically offer improved tracking; and

7.5.11.4.2 Ensure the ATC service in each Core Contingency FIR is prepared for any 'mixed mode' (contingency route/level and non-contingency route/level) operations in the same airspace during the transition to full normal operations.

7.6 Special Procedures (KL FIR)

7.6.1 Aircrafts arriving in Singapore aerodromes from beyond KL FIR are advised to file their flight plan via alternative routes.

7.6.2 Aircraft departing from Singapore FIR bound for aerodrome beyond KL FIR are advised to file the route via alternative routes.

7.6.3 To reduce the impact on Singapore Aerodrome departure/arrival due to Kuala Lumpur airspace closure, a special arrangement for routes/area delegation is set in place.

7.6.4 Area A/C/E/H that is within Kuala Lumpur ACC which contained within coordinates 013206N 1035031E, 022205N 1034724E, 025234N 1033340E, 025432N 1034341E, 033822N 1034139E, 023600N 1044500E, 012000N 1042000E, 012000N 1040528E, thence along the Malaysia/Singapore International boundary to 012600N 1034055E to 013022N 1033437E, 013130N 1034236E to 013206N 1035031E will be delegated to Singapore ACC to manage traffic to/from Singapore airports during the activation of contingency plan.

7.6.5 The responsibility for air traffic control on the portions of B469 from 90PU to PU will be delegated temporarily to Singapore ACC. Singapore ACC shall not affect any change of cruising flight level from 90PU northward.

7.6.6 Aircraft shall strictly maintain its flight plan route. Any deviation (i.e weather deviation, tactical vectoring) shall be carried out towards the eastern side of ATS route B469 (90PU to PU) and within the contained Area A/C/E/H.

7.6.7 For aircraft departure from Singapore FIR traversing Kuala Lumpur FIR using CRMYS002, aircraft shall maintain the flight level allocation prior to 90PU.

7.7 Pilot and Operator Procedures

7.7.1 Filing of Flight Plans

7.7.1.1 Flight planning requirements detailed in Malaysia AIP continue to apply during contingency operations, except where modified by the contingency ATS routes and FLAS specified by ATSU and/or in AIP, reproduced in Appendix H and Appendix I.

7.7.1.2 Airspace users are expected to familiarise themselves with this Arrangement and the activation times. For aircraft intending to operate in areas during periods when this Arrangement is activated, the operators shall plan the flight to conform to the requirements in this Arrangement.

7.7.1.3 The flight planning requirements during contingency periods will be in accordance with ICAO Annex 2 and DOC 4444. Information, will, however, be required, to indicate that the aircraft will operate in airspace where this Arrangement is active.

7.7.2 Overflight Approval

7.7.2.1 Aircraft operators must obtain overflight approval from CAAM prior to operating flights through KL FIR and/or KK FIR.

7.7.2.2 During the activation period of this Arrangements, the adjacent ATS authority will provide normal ATC clearances for aircraft to enter Kuala Lumpur FIR and/or Kota Kinabalu FIR. However, the adjacent ATS authority is not responsible for coordinating or providing overflight clearances for KL FIR and/or KK FIR. The operator must ensure approval of any required overflight has been obtained.

7.7.3 CNS Capability

7.7.3.1 Flights operating through KL FIR and/or KK FIR shall be equipped with the following minimum communications, navigation and surveillance capability:

a) Appropriate communications and navigation equipment enabling them to maintain two-way communication with the appropriate ATC unit. The radio communication equipment shall provide for communications on the aeronautical emergency frequency 121.5 MHz. The minimum requirement

is VHF Radiotelephony (RTF) equipment suitable for communicating on ATC frequencies;

b) Navigation equipment which continuously provides indications to the flight crew of adherence to or departure from track to the required degree of accuracy at any point along that track and to navigate in accordance with ATC instructions. The minimum requirement is aircraft is equipped with one radio compass;

c) The vertical navigation performance capability that satisfies the Altimetry System requirement for operations in RVSM airspace; and

d) Pressure altitude reporting secondary surveillance radar (SSR) transponder and any other SSR transponder capability required for the route being flown.

7.8 Pilot Operating Procedures

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

7.8.2 Pilots of aircraft operating in KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) during contingency operations shall comply with the following procedures:

a) all aircraft proceeding along the ATS routes established in this Arrangement shall 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 H and Appendix I.

b) flights are to flight plan using the Contingency Routes specified Appendix H and Appendix I according to their airport of origin and destination;

c) aircraft are to operate as close as possible to the centre line of the assigned contingency route;

d) a continuous communications watch shall be maintained on the specified contingency frequency as specified in Appendix I.

e) aircraft position reports and other information as necessary shall be broadcasted in accordance with TIBA procedures defined in Appendix J.

f) aircraft navigation and anti-collision lights shall be displayed;

g) except in cases of emergency or for reasons of flight safety, pilots are to maintain during their entire flight within KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1), the last assigned flight level, Mach number and SSR transponder code. If no transponder code has been assigned, aircraft shall squawk code A2000;

h) aircraft are to reach the flight level last assigned by the responsible ACC at least ten (10) minutes before entering KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1) or as otherwise instructed by the ATC unit acting in accordance with the ATSCP or other contingency arrangement;

i) pilots are to include in their last position report prior to entering KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1), the estimated time over the entry point of and the estimated time of arrival over the relevant exit point;

j) pilots are to contact the next adjacent ACC as soon as possible, and in any event not less than ten (10) minutes before the estimated time of arrival over the relevant exit point from KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1);

k) pilots are to strictly adhere to the ICAO Traffic Information Broadcasts by Aircraft (TIBA) procedures, reproduced in Appendix J, on the specified VHF and HF frequencies listed in Appendix I. When necessitated by emergency conditions or flight safety requirements, pilots are to transmit blind on these frequencies, their current circumstances and the commencement and completion of any climb and descent or deviation from the cleared contingency route;

l) whenever emergencies and/or flight safety reasons make it impossible to maintain the flight level assigned for transit of KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1), pilots are to climb or descend well to the right of the centreline of the contingency route, and if deviating outside KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1), to immediately inform the ACC unit responsible for that airspace. Pilots are to broadcast details of any level change including aircraft identification, aircraft position and route, vacated flight level, intended flight level, flight level passed and cruising flight level maintained on TIBA frequency to KL FIR and/or KK FIR;

m) pilots are to maintain own longitudinal separation of ten (10) minutes with no closing speed from preceding aircraft at the same cruising level; and

n) not all operational circumstances can be addressed by this Arrangements 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.

7.8.3 Interception of Civil Aircraft

7.8.3.1 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 CAAM CAD 2 and ICAO Annex 2 –Rules of the Air.

7.8.3.2 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.

7.8.3.3 If circumstances lead to the closure of KL FIR and/or KK FIR and no contingency routes are available, aircraft will be required to remain clear of KL FIR and/or KK FIR.

7.8.3.4 Pilots shall continuously guard the VHF emergency frequency 121.5 MHz and should operate their transponder at all times during the 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 the last discrete code assigned by ATC or select code A2000 if no code was assigned.

7.9 Communication Procedure

7.9.1 Degradation of Communication - Pilot Radio Procedure

7.9.1.1 When operating within the contingency airspace, pilots should use normal radio communication procedures where ATS are available. Where limited or no ATS is available communications will be conducted in accordance with the procedures in this Arrangements, or as otherwise notified by NOTAM.

7.9.1.2 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 unit on the last frequency where two-way communication had been established. In the absence of communication with the ATC unit, the pilot should continue to make routine position reports on the assigned frequency, and also broadcast positions broadcast positions in accordance with the TIBA procedures.

7.9.2 Communication Frequencies

7.9.2.1 A list of frequencies to be used for the contingency routes and the ATSUs providing FIS and air-ground communication monitoring for Kuala Lumpur FIR is detailed at Appendix I.

7.10 Aeronautical Support Services

7.10.1 Aeronautical Information Services (AIS)

7.10.1.1 The Aeronautical Information Service is responsible in ensuring the flow of information necessary for the safety, regularity and efficiency of international and national air navigation within its area of responsibility. It consists of AIS Unit, International NOTAM Office (NOF) and AIS units established at certain aerodromes as listed below:

AIS Unit	
Name	Aeronautical Information Services
Address	Civil Aviation Authority of Malaysia, Air Traffic Control Tower West, KL International Airport, 64000 KLIA Sepang Selangor Darul Ehsan Malaysia
Telephone	(+60) 3 87784106
Fax	NIL

International NOTAM Office (NOF)	
Telephone	(+60) 3 87784100/87784101
Fax	(+60) 3 87784104
AFS	WMKKYNYM WMKKYNYN

7.10.2 Meteorological Services (MET)

7.10.2.1 Meteorological Watch Offices (MWO) are designated to provide meteorological services for Air Traffic Services within the Flight Information Region or Control Terminal Area.

7.10.2.2 The MWO provide the following types of information for the use of meteorological service for ATS:

a) METAR; Aerodrome Forecast (TAF);

b) Landing Forecasts (Trend Forecast);

c) Forecasts for Take Off;

d) Area QNH;

e) Aerodrome Warnings;

f) Tropical Cyclone Advisory Bulletins;

g) Volcanic Ash Advisory Bulletins;

h) SIGMET Info;

i) AIRMET Info;

j) Wind Shear Alerts & Wind Shear Warnings;

k) Area Forecast (ARFOR) & Route Forecast ROFOR;

l) Forecast of Upper Winds (Local area);

m) Domestic Significant Weather Chart (Local area);

n) WAFS Products (Flight Plan & Flight Doc);

o) WAFS Significant Weather Chart;

p) WAFS Wind & Temp Chart;

q) Briefing & Consultation;

r) Display of Met Info (Aviation Briefing Terminal, ABT);

s) Radar Imageries;

t) Satellite Imageries; and

u) Meteorological Information for SAR.

7.11 Search and Rescue (SAR) Alerting

7.11.1 Notification and Coordination

7.11.1.1 SAR services are available for aircraft in distress within the Kuala Lumpur and Kota Kinabalu Search and Rescue Regions (SRRs), with the related Aeronautical Rescue Co-ordination Centre (ARCC) or Aeronautical Rescue Sub Centre (ARSC) being activated. The following are the ARCC/ARSC address and additional details:

Kuala Lumpur SRR	
Name	Kuala Lumpur ARCC
Address	Kuala Lumpur Air Traffic Control Centre Jalan CTA 3 (KLIA) Lapangan Terbang Antarabangsa Kuala Lumpur 64000 KLIA, Sepang, Selangor Darul Ehsan.
Telephone	(+60) 3 8787 8601/8602
Telefax	(+60) 3 8787 8600
AFS	WMKKYCYX
Email	klarcc@caam.gov.my

Kota Kinabalu SRR	
Name	Kota Kinabalu ARCC
Address	Civil Aviation Authority of Malaysia, ATCC Building, Jalan Kepayan, 88618 Kota Kinabalu, Sabah
Telephone	(+60) 8 8224 403
Telefax	(+60) 8 8219 280
AFS	WBKKYCYX
Email	kkarcc@caam.gov.my

Kota Kinabalu SRR

Name	Kuching ARSC
Address	Civil Aviation Authority of Malaysia Kuching International Airport P.O Box 1359 93728 Kuching, Sarawak Malaysia
Telephone	(+60) 8 245 3928
Telefax	(+60) 8 257 1526
AFS	WBGGZTZX
Email	kcharsc@caam.gov.my

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8 Appendices

8.1 APPENDIX A - Contact Details CCC

Organisation/ Division/Unit	Contact details		
Ministry of Transport Malaysia	Under Secretary Aviation Division No. 26, Jalan Tun Hussein, Presint 4, 62100 Putrajaya		
	Tel	(+60) 3 8892 1408	
	Fax	(+60) 3 8888 0158	
	Email	Primary	aduan@mot.gov.my
		Secondary	Mohamad Radzuan Bin Mazlan radzuan@mot.gov.my
Civil Aviation Authority of Malaysia	Chief Executive Officer Civil Aviation Authority of Malaysia No. 27, Persiaran Perdana, Aras 1-4, Blok Podium, Presint 4, 62618 Wilayah Persekutuan Putrajaya, Putrajaya, Malaysia		
	Tel	(+60) 3 8871 4000	
	Fax	(+60) 3 8890 1640	
	Email	Primary	ceo.office@caam.gov.my
		Secondary	Dato' Capt. Norazman Bin Mahmud norazman.mahmud@caam.gov.my
Air Operations Command Headquarters, Royal Malaysian Air Force	Air Operations Command Headquarters (MPOU), d/a Pangkalan Udara Subang, 40000 SHAH ALAM, Selangor		
	Tel	(+60) 3 4017 1836	
	Fax	(+60) 3 7841 7061	
	Email	Primary	potu@mod.gov.my
		Secondary	mouranopsisopda@gmail.com
Meteorological Department Malaysia	Pusat Meteorologi Penerbangan Nasional, Jabatan Meteorologi Malaysia, Aras 1, Pusat Pengurusan Lapangan Terbang, 64000 Selangor Darul Ehsan.		
	Tel	(+60) 387872390	
	Fax	(+60) 387871019	
	Email	klia@met.gov.my	

8.2 APPENDIX B - Contact Details ACG (KL FIR)

Organisation/ Division/Unit	Representative		Contact details
CAAM (DCEO Operations)	Primary	Deputy Chief Executive Office	Email : dceooperations@caam.gov.my
	Secondary	Zainul Abidin Bin Maslan Deputy Chief Executive Officer (Operations)	Tel : (+60) 3 8529 1200 Email : luniaz@caam.gov.my
CAAM (ANS Standard)	Primary	ANS Standards Office	Email : ansa@caam.gov.my
	Secondary	Raja Amsyar Hillman Bin Raja Badrul Hisham Director ANS Standard	Tel : (+60) 19 381 1209 Email : r.amsyarhillman@caam.gov.my
CAAM (ANS Operations)	Primary	ANS Operation Division Office	Email : bopnu@caam.gov.my
	Secondary	Khairul A'amali Bin Ismail Director ANS Operations Division	Tel : (+60) 11 6504 8177 Email : khairulamali@caam.gov.my
CAAM (Aeronautical Information Services)	Primary	AIS Unit	Email : ais@caam.gov.my
	Secondary	Sahrol Nizal Bin Ab Rashid Deputy Director ANS Operations Division	Tel : (+60) 12 224 2276 Email : sahrol@caam.gov.my
	Third	Mohd Rahimi bin Jamaludin Principal Assistant Director ANS Operations Division	Tel : (+60) 13 7702445 Email : rahimi@caam.gov.my
CAAM (Search and Rescue)	Primary	Search and Rescue Unit	Tel : (+60) 3 8529 1225 Email : sar.hq@caam.gov.my
	Secondary	Mohammad Khairul B. Abu Yamin Deputy Director ANS Operations Division (A)	Tel : (+60) 10-225 5491 Email : khairul@caam.gov.my
	Third	Dayang Zarina Binti Abang Alli Deputy Director (KL ATCC)	Tel : (+60) 13-864 5376 Email : dygzarina@caam.gov.my

Organisation/ Division/Unit	Representative		Contact details
CAAM (ANS Technical Division)	Primary	ANS Technical Division Office	Email : btpnu@caam.gov.my
	Secondary	Mohd Fitri Bin Ishak Director ANS Technical Division	Tel : (+60) 17 433 6486 Email : fitri@caam.gov.my
	Third	Muhammad Firdaus Bin Ismail Deputy Director ANS Technical Division ATM	Tel : (+60) 12 257 7628 Email : firdaus.ismail@caam.gov.my
		Mohd Fitri Bin Ishak Deputy Director ANS Technical Division CNS	Tel : (+60) 17 433 6486 Email : fitri@caam.gov.my
	Fourth	Nur A`fifah Binti Mansor ICAO CCT Point of Contact	Tel : (+60) 12 279 9875 Email : afifah@caam.gov.my
CAAM (ANS Safety Division)	Primary	ANS Safety Division Office	Email : bkpnu@caam.gov.my
	Secondary	Md Nastain Bin Mahazur Deputy Director ANS Technical Division	Tel : (+60) 19 391 2524 Email : mdnastain@caam.gov.my
CAAM (KL ATCC)	Primary	KLATCC	Tel : (+60) 3 8539 1200 Email : klatccwm@caam.gov.my klatcc@caam.gov.my
	Secondary	Dayang Zarina Binti Abang Alli Deputy Director (KL ATCC)	Tel : (+60) 13-864 5376 Email : dygzarina@caam.gov.my
CAAM (Regional Office Peninsular)	Primary	Regional Office Peninsular	Email : pws.group@caam.gov.my
	Secondary	Mohd Rodzi Bin Salleh Director Regional Peninsular	Tel : (+60) 19 232 9486 Email : rodzi@caam.gov.my
	Third	Irman Bin Ridwan Depuy Director Regional Peninsular	Tel : (+60) 19 213 8773 Email : irman.ridwan@caam.gov.my
Royal Malaysian Air Force - JAMCC	Primary	Pusat Operasi Tentera Udara	Email : potu@mod.gov.my

Organisation/ Division/Unit	Representative		Contact details
	Secondary	Lt Kol Mohamad Nor Azlan bin Ab Rahim Ketua Cawangan KLLU, JATCC	Tel : (+60) 11 3373 7673 Email : azlan.rahim@airforce.mil.my
	Third	Mej Haniz bin Yahya Pegawai TMK, JAMCC	Tel : (+60) 19 941 3297 Email : haniz8001@gmail.com
Meteorological Department Malaysia	Primary	Ketua Operasi	Tel : (+60) 12 744 2388 Email : klia@met.gov.my
	Secondary	Muhammad Nazri Bin Noordin Ketua Penolong Pengarah	Tel : (+60)12 670 6170 Email : mnazri@met.gov.my
Airport Operator	Primary	Malaysia Airport Holding Berhad/ Malaysia Airports Sepang Sdn. Bhd.	Shahrunnizam Abd Jamil General Manager, Malaysia Airports Sepang Sdn. Bhd. Tel : (+60) 12 203 7834 Email : shahrun@malaysiaairports.com.my
	Secondary		Ahmad Harris Azizool Arif Senior Manager Malaysia Airports Sdn. Bhd. Tel : (+60) 17 660 3900 Email : harris@malaysiaairports.com.my
	Primary	Senai Airport Terminal Services Sdn Bhd (SATSSB)	Aerodrome Admin Email : adadmin@senaiairport.com

Organisation/ Division/Unit	Representative		Contact details
	Secondary		Mohd Farhan Mohd Fauzi Senior Manager Tel : (+60) 19-406 2663 Email : farhan@senaiairport.com
	Third		Aswad Asady Naemat Senior Executive Tel : (+60) 197441304 Email : aswad@senaiairport.com
CNS/ATM provider	Primary	Advanced Air Traffic Systems (M) Sdn. Bhd. (AAT)	Unit Operasi CNS AAT KLATCC Tel : 019-3772779 Email : cnsklatcc@aat.my
	Secondary		W Ahmad Akhirey Bin W Abd Rahman Site Manager KLATCC Tel : (+60) 19 219 9856 Email : akhirey@aat.my
	Third		Mohd Hakim Bin Sepihie Assist. Site Manager KLATCC Tel : 019- 6171716 Email : hakim@aat.my

Organisation/ Division/Unit	Representative		Contact details
	Primary	Government Specialised Services, TM Techology Sdn Bhd	GSS HELPDESK, Specialised Expert Team Tel : 1-800-22-0046 / : 1-800-22-0024/ : 1-800-22-0032 Email : snsh@tm.com.my
	Secondary		Ahmad Razaleigh Bin Mohd Ghastu Tel : (+60) 13 856 8575 Email : arazaleigh@tm.com.my
	Primary	Crystal Solaris Sdn. Bhd.	TBD
	Secondary		Wan Mohammad Norsafrin Bin Ab Rasip Project Leader Tel : (+60) 19 661 1780 Email : norsafrin@crystalsolaris.com
	Third		Helmi Bin Hashim (Subang & KLATCC) System Engineer Tel : (+60) 19 2640585 Email : helmi@crystalsolaris.com Ahmad Safwat Bin Abd Majid (KLIA & Johor) System Engineer Tel : (+60) 12 6253448 Email : safwat@crystalsolaris.com

Organisation/ Division/Unit	Representative		Contact details
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	Fourth		Nur Afrina Elyia Binti Muhamad Ghazali (AIS LAB) System Engineer Tel : (+60) 19 2640585 Email : afrina@crystalsolaris.com
Airlines representative	-	TBD	Tel : (+60) Email :
	-	TBD	Tel : (+60) Email :

8.3 APPENDIX C - Contact Details ACG (KK FIR)

Organisation/ Division/Unit	Representative		Contact details
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	Secondary	Zainul Abidin Bin Maslan Deputy Chief Executive Officer (Operations)	Tel : (+60) 3 8529 1200 Email : luniaz@caam.gov.my
CAAM (ANS Standard)	Primary	ANS Standards Office	Email : ansa@caam.gov.my
	Secondary	Raja Amsyar Hillman Bin Raja Badrul Hisham Director ANS Standard	Tel : (+60) 19 381 1209 Email : r.amsyarhillman@caam.gov.my
CAAM (ANS Operations)	Primary	ANS Operation Division Office	Email : bopnu@caam.gov.my
	Secondary	Khairul A'amali Bin Ismail Director ANS Operations Division	Tel : (+60) 11 6504 8177 Email : khairulamali@caam.gov.my
CAAM (Aeronautical Information Services)	Primary	AIS Unit	Email : ais@caam.gov.my
	Secondary	Sahrol Nizal Bin Ab Rashid Deputy Director ANS Operations Division	Tel : (+60) 12 224 2276 Email : sahrol@caam.gov.my
	Third	Mohd Rahimi bin Jamaludin Principal Assistant Director ANS Operations Division	Tel : (+60) 13 7702445 Email : rahimi@caam.gov.my
CAAM (Search and Rescue)	Primary	Search and Rescue Unit	Tel : (+60) 3 8529 1225 Email : sar.hq@caam.gov.my
	Secondary	Mohammad Khairul B. Abu Yamin Deputy Director ANS Operations Division (A)	Tel : (+60) 10-225 5491 Email : khairul@caam.gov.my
	Third	Dayang Zarina Binti Abang Alli Deputy Director (KL ATCC)	Tel : (+60) 13-864 5376 Email : dygzarina@caam.gov.my

Organisation/ Division/Unit	Representative		Contact details
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	Third	Muhammad Firdaus Bin Ismail Deputy Director ANS Technical Division ATM	Tel : (+60) 12 257 7628 Email : firdaus.ismail@caam.gov.my
		Mohd Fitri Bin Ishak Deputy Director ANS Technical Division CNS	Tel : (+60) 17 433 6486 Email : fitri@caam.gov.my
	Fourth	Nur A`fifah Binti Mansor ICAO CCT Point of Contact	Tel : (+60) 12 279 9875 Email : afifah@caam.gov.my
CAAM (ANS Safety Division)	Primary	ANS Safety Division Office	Email : bkpnu@caam.gov.my
	Secondary	Md Nastain Bin Mahazur Deputy Director ANS Technical Division	Tel : (+60) 19 391 2524 Email : mdnastain@caam.gov.my
CAAM (Regional office Sabah)	Primary	KK ATCC	Tel : (+60) 88 224404 Email : kkatcc@caam.gov.my
	Secondary	Mohd Razi Bin Abu Samah Regional Director, Sabah	Tel : (+60) 12 345 0464 Email : razi@caam.gov.my
	Third	Osman Bin Md Salleh Deputy Director (Operations) KK ATCC, Sabah	Tel : (+60) 19 840 1330 Email : osman@caam.gov.my
CAAM (Regional office Sarawak)	Primary	Kuching ATCC	Tel : (+60)82 455572 Email : atcckuching@caam.gov.my
	Secondary	Hajijah Binti Mohd Bujang RegionaL Director, Sarawak	Tel : (+60) 11 1568 9497 Email : hajijah@caam.gov.my

Organisation/ Division/Unit	Representative		Contact details
	Third	Noorashikin Binti Haron Deputy Director (Operation) Kuching ATCC, Sarawak	Tel : (+60) 19 818 8617 Email : noorashikin@caam.gov.my
Royal Malaysian Air Force – JATCC	Primary	Pusat Operasi Tentera Udara	Email : potu@mod.gov.my
	Secondary	Lt Kol Noor Hayusri bin Noordin Pegawai Memerintah JATCC Kota Kinabalu	Tel : (+60) 19 473 3676 Email : haziqhannah2528@gmail.com
	Third	Mej Adi Sofian bin Md Yusof Pegawai P4, JATCC Kota Kinabalu	Tel : (+60) 16 718 7545 Email : yanzsophillea@gmail.com
Meteorological Department Malaysia	Primary	Ketua Operasi	Tel : (+60)159 211 9849 Email : rfokkinabalu@met.gov.my
	Secondary	Dr Chai Mui Fat Ketua Penolong Pengarah	Tel : (+60)17 412 8981 Email : chai@met.gov.my
Airport Operator	Primary	Malaysia Airports Sdn. Bhd.	Ahmad Harris Azizool Arif Senior Manager Tel : (+60) 17 660 3900 Email : harris@malaysiaairports.com.my
CNS/ATM provider	Primary	Advanced Air Traffic Systems (M) Sdn. Bhd. (AAT)	Unit Operasi CNS AAT Kota Kinabalu Tel : (+60) 19 271 7160 Email : cnskk@aat.my
	Secondary		Shahril Amry Site Manager Tel : (+60) 19 248 2979 Email : shahril@aat.my

Organisation/ Division/Unit	Representative		Contact details
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	Secondary		Awg Nasradi Awg Ali Manager, Sabah Region Tel : (+60) 13 864 4020 Email :nasradi@tm.com.my
	Third		Mad Saidin Samshuddin Assistant Manager Sabah Region Tel : (+60) 13 801 3029 Email : saidin.samshuddin@tm.com.my
	Primary	Novatis Resources Sdn. Bhd.	Tel : (+60) 88 273 044 Email : katoc@novatis.com.my
	Secondary		Mohd Yusof Bin Abdul Razak Tel : (+60)14 505 9433 Email : yusof@novatis.com.my
	Primary	Crystal Solaris Sdn. Bhd.	TBD
	Secondary		Wan Mohammad Norsafrin Bin Ab Rasip Project Leader Tel : (+60) 19 661 1780 Email : norsafrin@crystalsolaris.com

Organisation/ Division/Unit	Representative		Contact details
	Third		Helmi Bin Hashim (Subang & KLATCC) System Engineer Tel : (+60) 19 2640585 Email : helmi@crystalsolaris.com Ahmad Safwat Bin Abd Majid (KLIA & Johor) System Engineer Tel : (+60) 12 6253448 Email : safwat@crystalsolaris.com Abdul Al-Alim Bin Ismail (Borneo) System Engineer Tel : (+60) 14 9775079 Email : alim@crystalsolaris.com Hasrul Bin Ismail (Penang & Langkawi) System Engineer Tel : (+60) 16 2956475 Email : hasrul@crystalsolaris.com
	Fourth		Nur Afrina Elyia Binti Muhamad Ghazali (AIS LAB) System Engineer Tel : (+60) 19 2640585 Email : afrina@crystalsolaris.com
Airlines representative	-	TBD	Tel : (+60) Email :
	-	TBD	Tel : (+60) Email :

8.4 APPENDIX D - Contact Details Adjacent States & ICAO

8.4.1 Existing Digital Communication System (DCS) / International Direct Dialling (IDD) at CWP or Supervisor Position in ATCC shall be used as the main means of communication with adjacent ANSP.

8.4.2 Listed below are the alternative contacts to communicate with adjacent ANSP:

No	Contact details
1	Indonesia/Jakarta ACC Tel : +62 21 550 5302 Fax : +62 21 550 5302 Email : TBC ATFN : WIIFZQZX Indonesia/Jakarta Upper ACC Tel : +62 21 550 6582 Fax : +62 21 550 5302 Email : TBC ATFN : WIIFZQZX Indonesia/Ujung Pandang ACC Tel : +62 41 1481 3223 Fax : TBC Email : deputyops.matsc@airnavindonesia.co.id ace.matsc@airnavindonesia.co.id ATFN : WAAAZRZX
2	India/Chennai OCC Tel : +91 44 2256 1283 Fax : +91 44 2256 1365 Email : vomm.wsi@aai.aero ATFN : VOMFZQZX
3	Singapore/Singapore ACC Tel : TBC Fax : +65 6441 0221 Email : TBC ATFN : WSJCZQZX
4	Philippines/Manila ACC Tel : +63 2 944 2235 Fax : TBC Email : TBC ATFN : RPHIZRZX

No	Contact details
5	Thailand/Bangkok ACC Tel : +66 2 285 9111 Fax : +66 2 285 9077 Email : TBC ATFN : VTBBZRZX
6	Vietnam/Ho Chi Minh ACC Tel : +84 283 844 1153 Fax : +84 283 844 3774 Email : TBC ATFN : VVTSZRZX, WTSZQZX

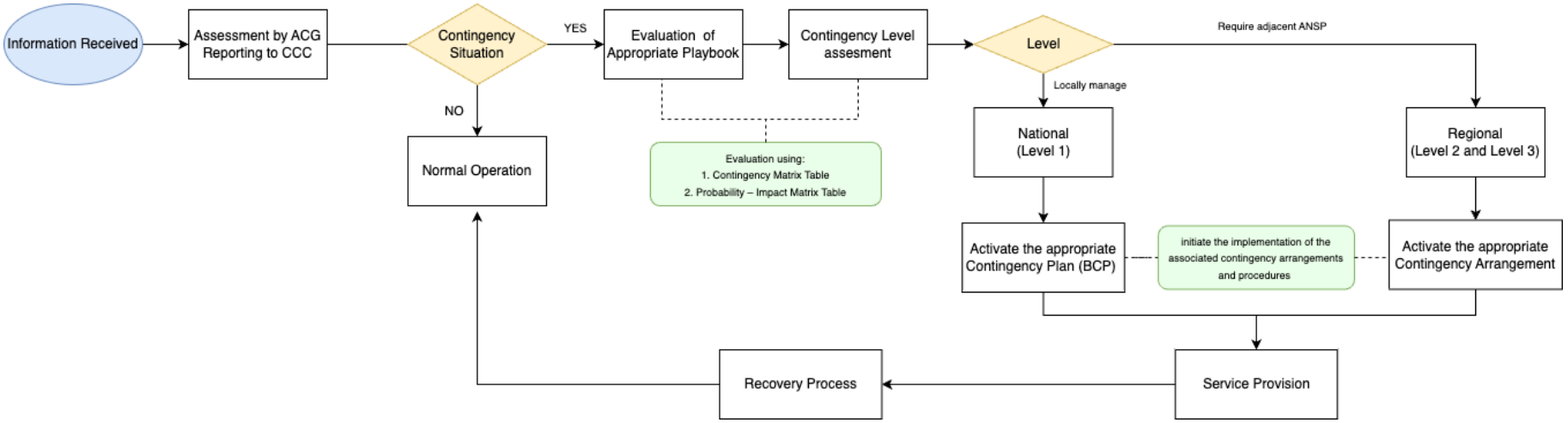
8.4.3 ICAO Asia and Pacific (APAC) Regional Office (RO)

No	Contact details
1	ICAO APAC Regional Office Tel : (+66) 2 537 8189 Fax : (+66) 2 537 8199 Email : apac@icao.int

8.4.4 ICAO Contingency Coordination Team (CCT)

No	Contact details
1	ICAO APAC Regional Office Tel : (+66) 2 537 8189 ext. 159 Fax : (+66) 2 537 8199 Email : msallehhuddin@icao.int

8.5 APPENDIX E - Activation Process Flowchart



8.6 APPENDIX F - Specimen NOTAM

8.6.1 Airspace available, Degraded ATS/No ATC:

NOTAM _____ DUE TO ANTICIPATED DISRUPTION OF ATS IN KUALA LUMPUR FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING AIRSPACE.

NOTAM _____ TRAFFIC NOT WISHING TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE KUALA LUMPUR FIR.

8.6.2 Airspace available, No ATS:

NOTAM _____ DUE TO DISRUPTION OF ATS IN KUALA LUMPUR FIR ACFT WISHING TO TRANSIT THROUGH THE FIR SHALL STRICTLY ADHERE TO FOLLOWING CONTINGENCY FL ALLOCATION SCHEME AND ADHERE TO THE ATS CONTINGENCY PLAN FOR KUALA LUMPUR FIR.

8.6.3 Airspace limited:

NOTAM _____ DUE TO VOLCANIC ASH IN KUALA KINABALU FIR ALL ACT ON ATS ROUTE _____ EXPECT REROUTE _____.

8.6.4 Avoidance of airspace (Airspace not Available):

NOTAM _____ DUE TO TOTAL DISRUPTION OF ATS IN KUALA LUMPUR FIR ALL ACT ARE ADVISED TO AVOID THE FIR.

8.6.5 Non-adherence to the Contingency Plan

NOTAM _____ OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE *(BANGKOK/ KUALA LUMPUR)* FIR.

8.6.6 Resumption to Normal Operation (during KL/KK FIR Contingency or other states contingency activation)

The following sample NOTAMN Field E text is provided to facilitate harmonized information in affected Contingency FIRs.

[KL/KK] FIR CONTINGENCY – RECOVERY TO NORMAL OPERATIONS

TRANSITION TO NORMAL OPERATIONS IN THE [XXXX] FIR/S WILL COMMENCE AT [TIME] ALL FLIGHTS OPERATING IN THE [XXXX FIR/S] PRIOR TO [TIME] SHALL FLIGHT PLAN AND OPERATE IN ACCORDANCE WITH THE REQUIREMENTS PROMULGATED IN [LIST OF EXISTING CONTINGENCY ROUTE NOTAMS FOR THE FIR/S].

FLIGHTS PLANNED TO OPERATE IN THE [XXXX FIR/S] AT OR AFTER [TIME] SHALL FLIGHT PLAN VIA STANDARD NON-

CONTINGENCY ATS ROUTES AS PUBLISHED IN [STATE NAME] AIP. LEVEL AND ROUTE RESTRICTIONS MAY BE TACTICALLY APPLIED DURING THE TRANSITION TO NORMAL OPERATIONS. OPERATORS SHOULD CONSIDER THE CARRIAGE OF ADDITIONAL FUEL.

FLIGHTS OPERATING WITHIN [XXXX] FIR/S SHALL NOT SUBMIT IN-FLIGHT RE-FILE OF FLIGHT PLANS OR REQUEST TACTICAL RE-ROUTING TO NORMAL ROUTES OR TRACK SHORTENING, EXCEPT ONLY IN CASES OF EMERGENCY OR DIVERSION FOR LANDING AT AERODROMES OTHER THAN FLIGHT PLANNED.

ATC MAY TACTICALLY OFFER IMPROVED ROUTES OR FLIGHT LEVELS WHERE AVAILABLE.

FLIGHT CREWS SHOULD BE AWARE THAT THERE MAY BE MIXED CONTINGENCY ROUTE/LEVEL AND NON-CONTINGENCY ROUTE/LEVEL OPERATIONS IN THEIR VICINITY DURING THE TRANSITION TO NORMAL OPERATIONS.

8.7 APPENDIX G - Contingency Form Template

CONTINGENCY FORM		
☐ Kuala Lumpur ACC	☐ Kota Kinabalu ACC	☐ Kota Kinabalu ACC
☐ Playbook 1 ☐ Playbook 2 ☐ Playbook 3 ☐ Playbook 4 ☐ Playbook 5 ☐ Playbook 6		
Name:	**Date:**	**Time:**
Contingency Type: ☐Communication ☐Facility ☐Surveillance ☐Staffing ☐Natural Disaster ☐Others		
Contingency Events: ☐ATM system failure ☐Volcanic Ash ☐Industrial action ☒Pandemic ☐Facility incidents ☐Military activity ☐Nuclear emergency ☐ Cyber attack ☐Adverse weather ☐GNSS spoofing/interference ☐Others (specify) _____		
Details:		
Contingency Level: ☐ Level 1 – National Level (Business Continuity Plan) ☐ Level 2 – Regional Level ☐ Level 3 – Regional Level		
States Involved: ☐ WSJC ☐ VTBB ☐ VOMF ☐ VVHM ☐ WIIF ☐ WAAF ☐ RPHI ☐ Brunei TMA ☐ ____ ☐ ____		

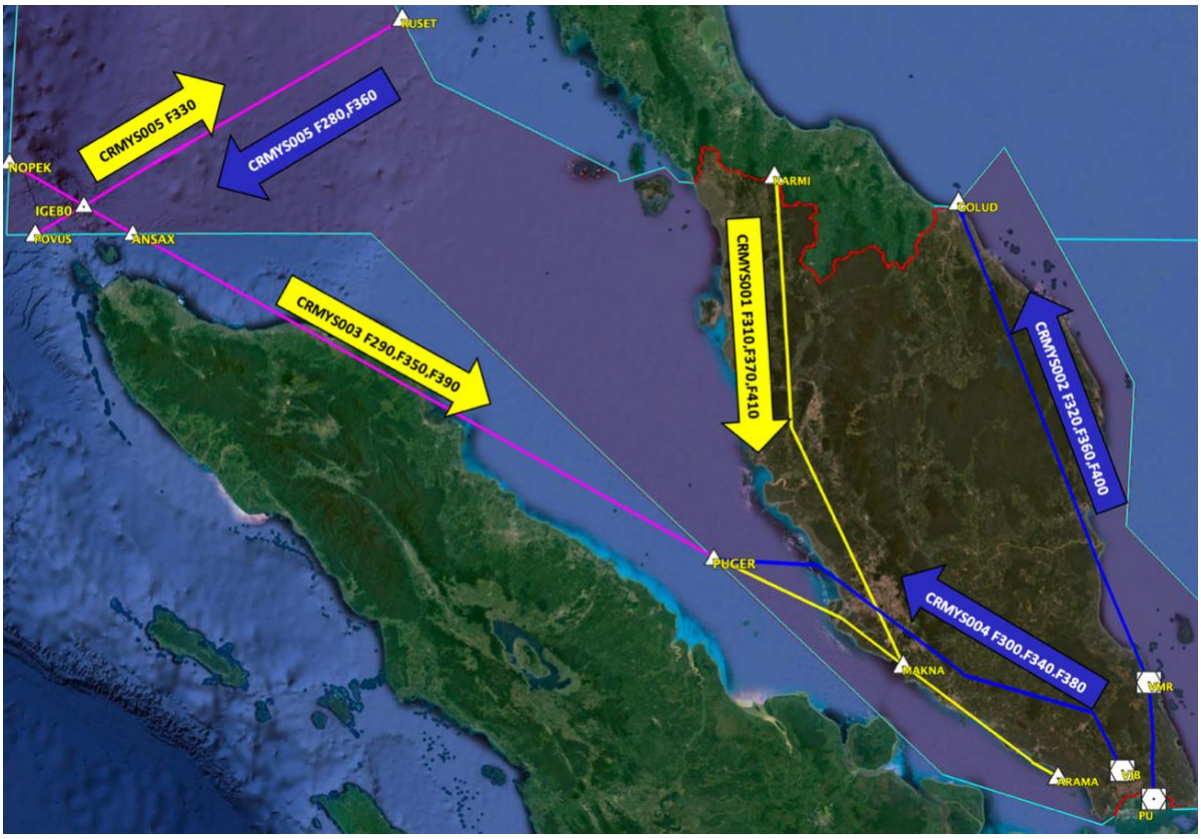
Notification		Actions	
States/organisation	**PIC**	**Status**	**Details**
WSJC	ACG	Yes / No	
VTBB		Yes / No	
VOMF		Yes / No	
VVHM		Yes / No	
WIIF		Yes / No	
WAAF		Yes / No	
RPHI		Yes / No	
Brunei TMA		Yes / No	
ICAO APAC		Yes / No	

CCT	State CCT Representative	Yes / No	

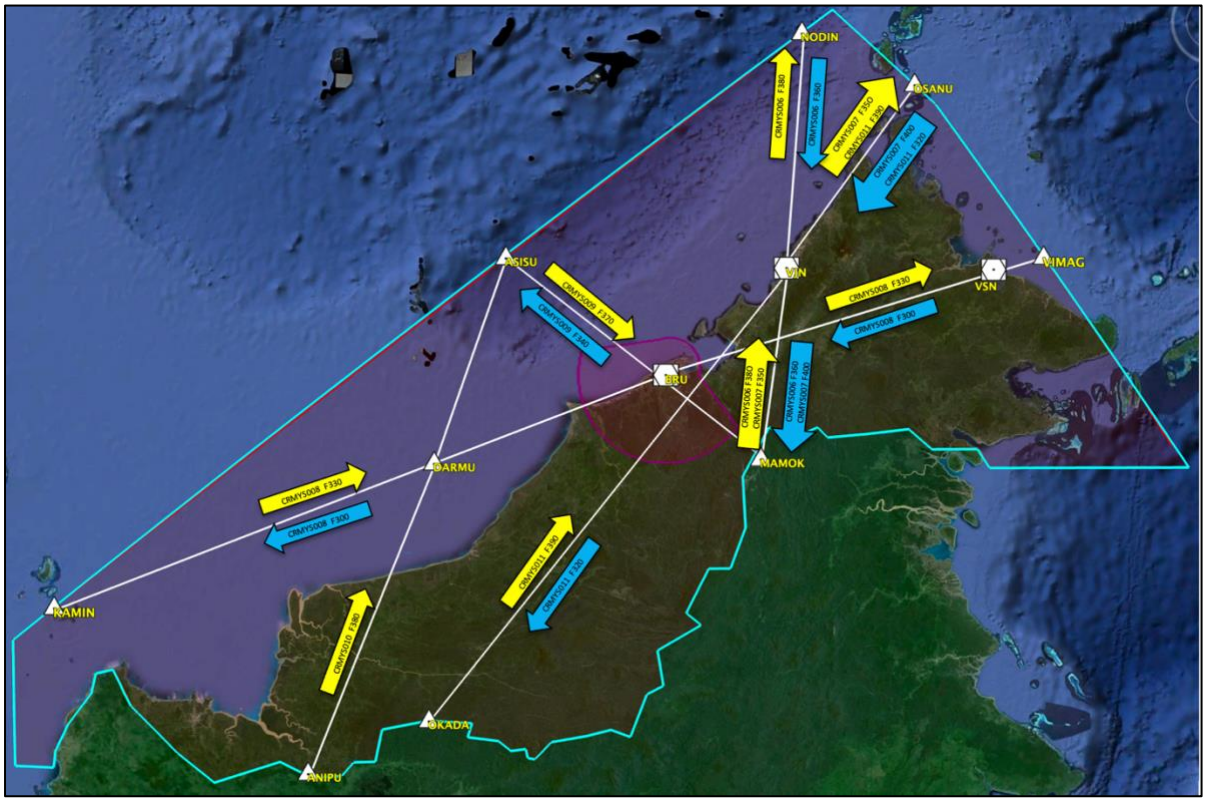
ATS Operational procedure and flow/capacity management mitigation		
Action(s) taken		**Details**
Issuing NOTAM	☐	
Re-routing	☐	
Separation - Miles-in-trail (MIT)	☐	
Separation - Minutes-in-trail (MINIT)	☐	
Level Restrictions	☐	
Airborne Holding	☐	
Ground Stop (GS)	☐	
Ground Delay Program (GDP)	☐	
Tunnelling	☐	
Fix Balancing	☐	
Airspace Classification	☐	
Others (specify)	☐	
TRANSFER OF CONTROL		
Action(s) taken		**Details (if applicable)**
Position Reporting	☐	
Instructions for Overflying traffic	☐	
Procedures for flights to/from airports within Kuala Lumpur FIR/ Kota Kinabalu FIR	☐	
Filing of flight plans	☐	
Pilot operating procedures	☐	
Collision Avoidance	☐	
OVERFLIGHT PERMISSION		
Prior Permission Required (PPR) if any	☐	
INTERCEPTION OF CIVIL AIRCRAFT	☐	
SEARCH AND RESCUE	☐	

8.8 APPENDIX H - Contingency Routes Charts

8.8.1 Kuala Lumpur FIR Contingency Route (CR)



8.8.2 Kota Kinabalu FIR Contingency Route (CR)



8.9 APPENDIX I - Contingency Routes Structure

8.9.1 Kuala Lumpur FIR Contingency Route (CR) Structure

Contingency Route (CR)	ATS Routes	Direction	FLAS	TIBA	ACC
CRMYS 001	Y507/Y511/A464	Uni-directional Southbound	FL310 FL370 FL410	134.65 MHz	**Bangkok ACC** (P) 133.9 MHz (S) 268.5 MHz **Singapore ACC** (P) 133.25 MHz (S) 127.3 MHz HF: 5655 / 8942 ADS-C/CPDLC: WSJC
CRMYS 002	M751/B469	Uni-directional Northbound	FL320 FL360 FL400		**Singapore ACC** (P) 133.25 MHz (S) 127.3 MHz HF: 5655 / 8942 ADS-C/CPDLC: WSJC **Bangkok ACC** (P) 133.9 MHz (S) 268.5 MHz
CRMYS 003	P574/ Y511/A464	Uni-directional Eastbound	FL290 FL350		**Jakarta ACC** (P) 128.3 MHz

Contingency Route (CR)	ATS Routes	Direction	FLAS	TIBA	ACC
			FL390	134.65 MHz	(S) 132.2 MHz HF: 3470 kHz 6556 kHz 11396 kHz 13318 kHz **Singapore ACC** (P) 133.25 MHz (S) 127.3 MHz HF: 5655 / 8942 ADS-C/CPDLC: WSJC
CRMYS 004	Y342/Y513/Y504/G582/P574	Uni-directional westbound	FL300 FL340 FL380		**Singapore ACC** (P) 133.25 MHz (S) 127.3 MHz HF: 5655 / 8942 ADS-C/CPDLC: WSJC **Jakarta ACC** (P) 128.3 MHz (S) 132.2 MHz HF: 3470 kHz 6556 kHz

Contingency Route (CR)	ATS Routes	Direction	FLAS	TIBA	ACC
				134.65 MHz	11396 kHz 13318 kHz
CRMYS 005	P627	Eastbound	FL330		**Jakarta ACC** (P) 128.3 MHz (S) 132.2 MHz **Bangkok ACC** (P) 133.9 MHz (S) 268.5 MHz
		Westbound	FL280 FL360		

8.9.2 Kota Kinabalu FIR Contingency Route (CR) Structure

Contingency Route (CR)	ATS Routes	Direction	FLAS	TIBA	ACC
CRMYS 006	M522	Southbound	FL360	128.75 MHz	**Manila ACC** (P) 118.9MHz (HF) 11396/8942KHz **Ujung Pandang ACC** (P) 133.325 MHz **/** 134.025 MHz (HF) 11396/6556 KHz
		Northbound	FL380		
CRMYS 007	M646/M522	Southbound	FL400		**Manila ACC** (P) 118.9MHz (HF) 11396/8942KHz **Ujung Pandang ACC** Ujung Pandang ACC (P) 133.325 MHz **/** 134.025 MHz (HF) 11396/6556 KHz
		Northbound	FL350		
CRMYS 008	M646/W461/A341	Eastbound	FL330		**Jakarta ACC** (P) 133.7 MHz/ 133.325 MHz (S) 125.7 MHz/ 134.025 MHz (HF) 11396/6556 KHz
		Westbound	FL300		

Contingency Route (CR)	ATS Routes	Direction	FLAS	TIBA	ACC
				128.75 MHz	**Manila ACC** (P) 118.9MHz (HF) 11396/8942KHz
CRMYS 009	M768	Eastbound	FL370		**Singapore ACC** (HF Primary) 8942 KHz (HF Secondary) 5655 KHz **Ujung Pandang ACC** (P) 133.325 MHz **/** 134.025 MHz (HF) 11396/6556 KHz
		Westbound	FL340		
CRMYS 010	M722	Uni-directional northbound	FL380		**Jakarta ACC** (P) 133.7 MHz/ 133.325 MHz (S) 125.7 MHz/ 134.025 MHz (HF) 11396/6556 KHz **Singapore ACC** (HF Primary) 8942 KHz (HF Secondary) 5655 KHz
CRMYS 011	M646/P648	Southbound	FL320		**Manila ACC** (P) 118.9MHz (HF) 11396/8942KHz
		Northbound	FL390		

Contingency Route (CR)	ATS Routes	Direction	FLAS	TIBA	ACC
					Jakarta ACC (P) 133.7 MHz/ 133.325 MHz (S) 125.7 MHz/ 134.025 MHz (HF) 11396/6556 KHz

8.10 APPENDIX J -Traffic Information Broadcasts by Aircraft (TIBA) Procedures

8.10.1 TIBA Frequency

8.10.1.1 Where VHF is used for air-ground communications with ATS and an aircraft has only two serviceable VHF sets, one should be tuned to the appropriate ATS frequency and the other to the TIBA frequency.

8.10.2 Listening Watch

8.10.2.1 A listening watch shall be maintained on the TIBA frequency 10 minutes before entering KL FIR, KK FIR and airspace where ATS is provided by Malaysia (see ENR 2.1) until leaving this airspace.

8.10.3 Time of Broadcast. A broadcast shall be made

a) 10 minutes before entering KL FIR, KK FIR and airspace where ATS is provided by Malaysia (see ENR 2.1) or, for a pilot taking off from an aerodrome located within the lateral limits of KL FIR, KK FIR and/or airspace where ATS is provided by Malaysia (see ENR 2.1), as soon as appropriate after take-off;

b) 10 minutes prior to crossing a reporting point;

c) 10 minutes prior to crossing a reporting point;

d) At 10-minute intervals between distant reporting points;

e) To 5 minutes, where possible, before a change in flight level (only in case of emergency);

f) At the time of a change in flight level; and; and

g) At any other time considered necessary by the pilot.

8.10.4 Forms of Broadcast.

8.10.4.1 The broadcasts should be in the following form:

a) ALL STATIONS (necessary to identify a traffic information broadcast);

b) CALLSIGN;

c) FLIGHT LEVEL (number);

d) DIRECTION;

e) FROM (position) TO (position);

f) POSITION (reporting point) AT (time);

g) ESTIMATE (next reporting point) AT (time);

h) CALLSIGN;

i) OUT;

j) Example: "ALL STATIONS 9MCAAM FLIGHT LEVEL 350 SOUTHBOUND FROM KARMI TO ARAMA POSITION ANBIK AT 0530 ESTIMATE KAKAK AT 0536 9MCAAM OUT"

8.10.4.2 Broadcasts reporting flight level change (i.e emergency) should be in the following form:

a) ALL STATIONS (necessary to identify a traffic information broadcast)

b) CALLSIGN

c) FLIGHT LEVEL (number)

d) DIRECTION

e) FROM (position) TO (position)

f) POSITION (reporting point) AT (time)

g) LEAVING FLIGHT LEVEL (number) NOW FOR

h) ALTITUDE/FLIGHT LEVEL (number)

i) Followed as soon as practicable by:

1) ALL STATIONS

2) CALLSIGN

3) MAINTAINING ALTITUDE/FLIGHT LEVEL (number)

4) NOW

8.10.4.3 Broadcasts reporting temporary flight level change to avoid an imminent collision risk should be in the following form:

a) ALL STATIONS (necessary to identify a traffic information broadcast)

b) CALLSIGN

c) FLIGHT LEVEL (number)

d) DIRECTION

e) FROM (position) TO (position)

f) POSITION (reporting point) AT (time)

g) LEAVING FLIGHT LEVEL (number) NOW FOR

h) FLIGHT LEVEL (number)

i) Followed as soon as practicable by:

1) ALL STATIONS

2) CALLSIGN

3) RETURNING TO ALTITUDE/FLIGHT LEVEL (number)

4) NOW

8.10.5 Acknowledgement of the Broadcasts.

8.10.5.1 The broadcasts should not be acknowledged unless a potential collision risk is perceived.

8.10.6 Related Operating Procedures

8.10.6.1 Changes of Cruising Level

a) Cruising level changes should not be made within the KL FIR, KK FIR and airspace where ATS is provided by Malaysia (see ENR 2.1) during the period of contingency, unless considered necessary by pilots to avoid traffic conflicts, for weather avoidance or for other valid operational reasons.

b) When cruising level changes are unavoidable, all available aircraft lighting which would improve the visual detection of the aircraft should be displayed while changing levels.

8.10.6.2 Collision Avoidance

a) If, on receipt of traffic information broadcast from another aircraft, a pilot decides that immediate action is necessary to avoid an imminent collision risk, and this cannot be achieved in accordance with the right-of-way provisions of Annex 2, the pilot should:

1) unless an alternative manoeuvre appears more appropriate, immediately descend or climb 500 FT;

2) display all available aircraft lighting which improve the visual detection of the aircraft;

3) as soon as possible, reply to the broadcast advising action being taken;

4) notify the action taken on the appropriate ATS frequency; and

5) as soon as practicable, resume normal flight level, notifying the action on the appropriate ATS frequency.