Ministry of Land, Infrastructure, Transport and Tourism
JAPAN CIVIL AVIATION BUREAU

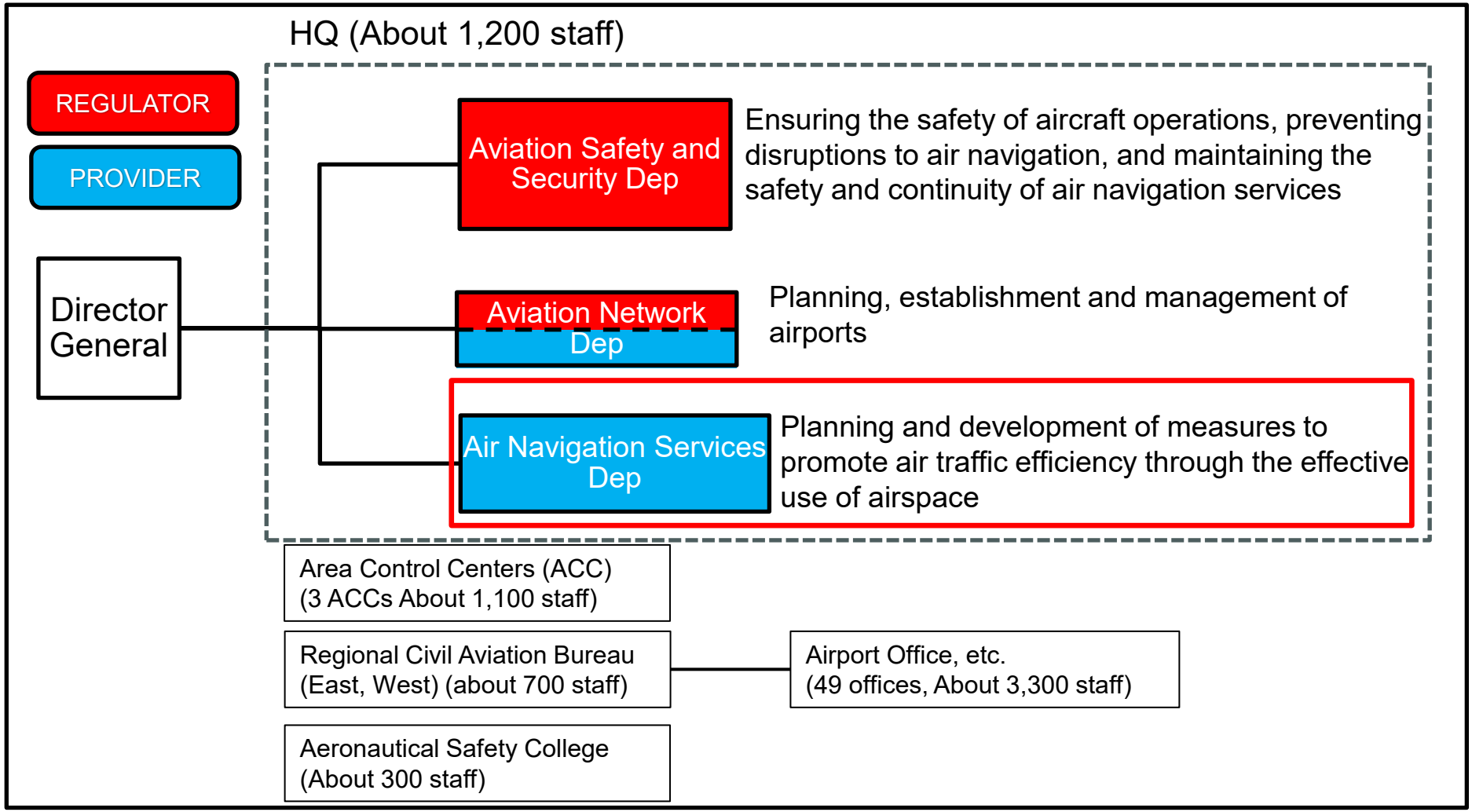
# ATM contingency coordination and operational collaboration with neighboring FIRs

Air Navigation Services Department
Japan Civil Aviation Bureau

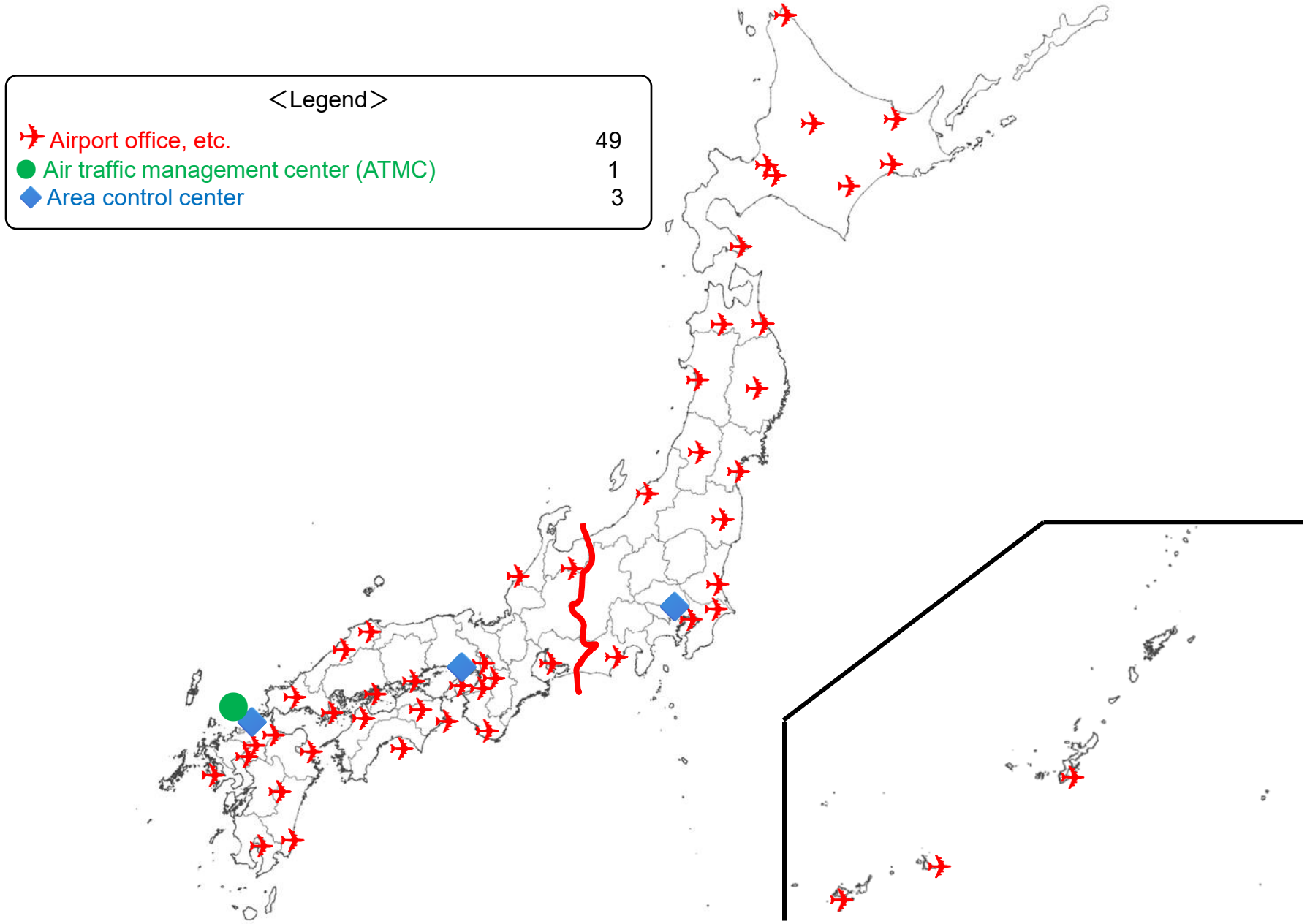
# JCAB Organizational Structure

- JCAB is a government organization (56 offices about 6,600 employs), it includes the Regulator and Provider (Air Navigation Services, Airports).

JCAB Organization Chart (Main Divisions)



# Location of Regional Civil Aviation Bureaus



# Crisis Management Operational Policy

○JCAB (ANS Department) has established a crisis management operational policy to ensure continuity of operations in the event that some ANS facilities become unable to continue operations.

○Structure of the operational policy

- Background
- Objective
- Assumed scenarios
- Organizational structure
- Basic policy
- Response procedures

# Objectives and Assumptions

○Objective

- To establish basic operational arrangements and recovery procedures to ensure continuity and restoration of operations when organizations responsible for air traffic services, primarily air traffic control and related services, are affected by disasters or other incidents and become unable to function.

○Assumed scenarios

- It is assumed that each ATC unit has sustained catastrophic damage as a result of a natural disaster or similar event, rendering the affected facility unable to continue operations.
- Personnel assigned to the affected facility are required to evacuate the building and associated facilities without delay, and in the case of an aerodrome, aerodrome functions will also be lost.
- The functions of the affected facility shall be immediately taken over and continued by designated alternate units.

# Organizational Structure(Crisis Response)

## ○Establishing Crisis Management Task Force

- JCAB (ANS Department) shall establish Contingency Coordination Committee (CCC) once ATC unit incurs catastrophic damage.
- CCC provides overall command and decision-making.

| Members | |
|---|---|
| Leader | Director-General (ANS Department) |
| Sub-Leader | Director(ANS Planning Division) |
| Member | Director(other divisions) |
| | Deputy Director(ANS planning Division) |

## ○Establishing Crisis Management Command Center

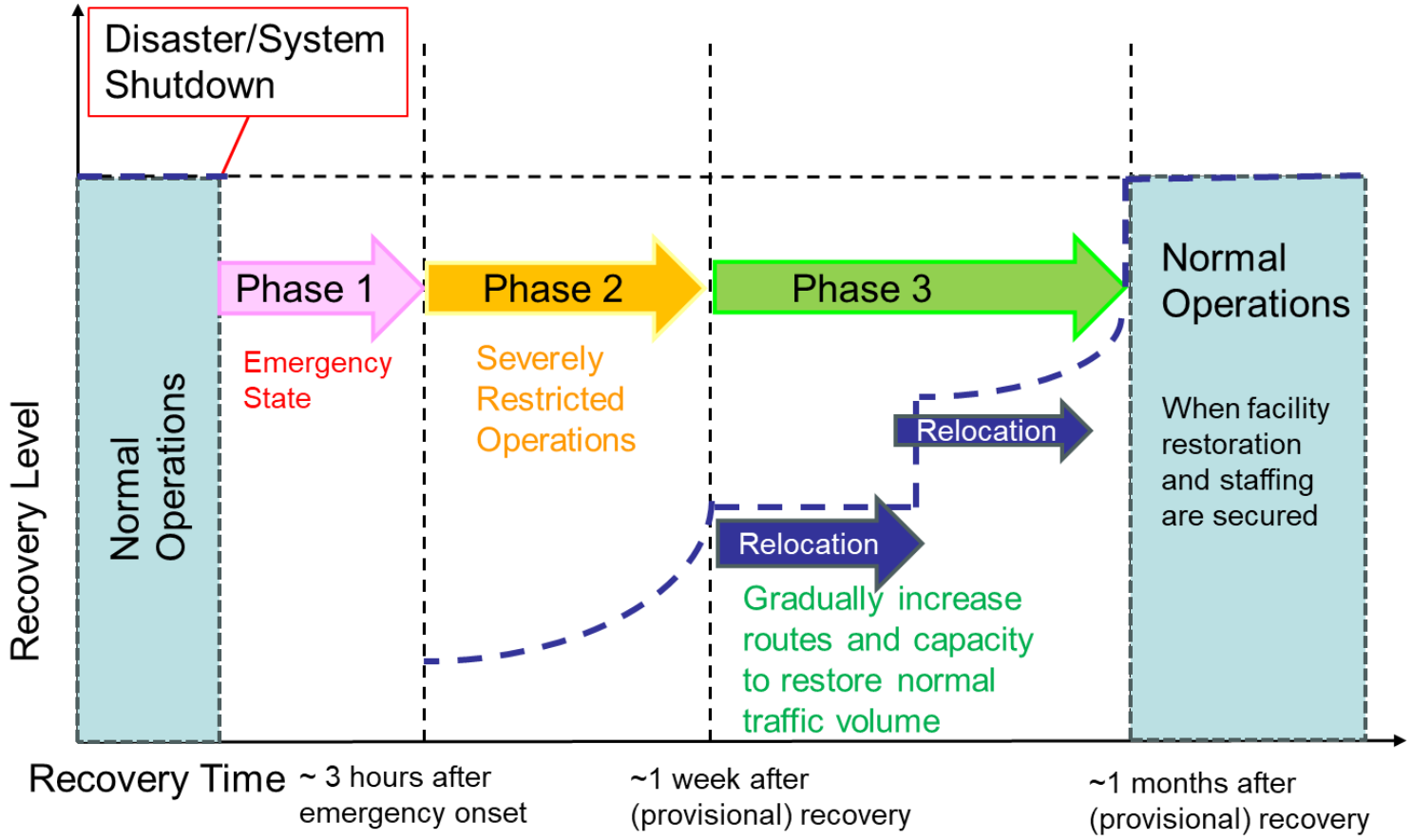
- ATMC shall establish a Crisis Management Command Center in the event of catastrophic damage..
- The Crisis Management Command Center shall be responsible for operational control and reporting, coordinate recovery levels, and communicate with the CCC.
- The Crisis Management Command Center shall assess recovery levels at the disaster-affected facility and its alternate facility and, in close coordination with the CCC, convey the CCC's directives to the relevant facilities and agencies.

| Members |
|---|
| Director for ATMC |
| Deputy Director for ATMC |
| Chief Air Traffic Control Officer |
| Chief Air Navigation Services Engineer |
| Chief Aeronautical Information Officer |

# Basic policy and Framework ①

## Basic policy（Continuity and Maintenance of Operations）

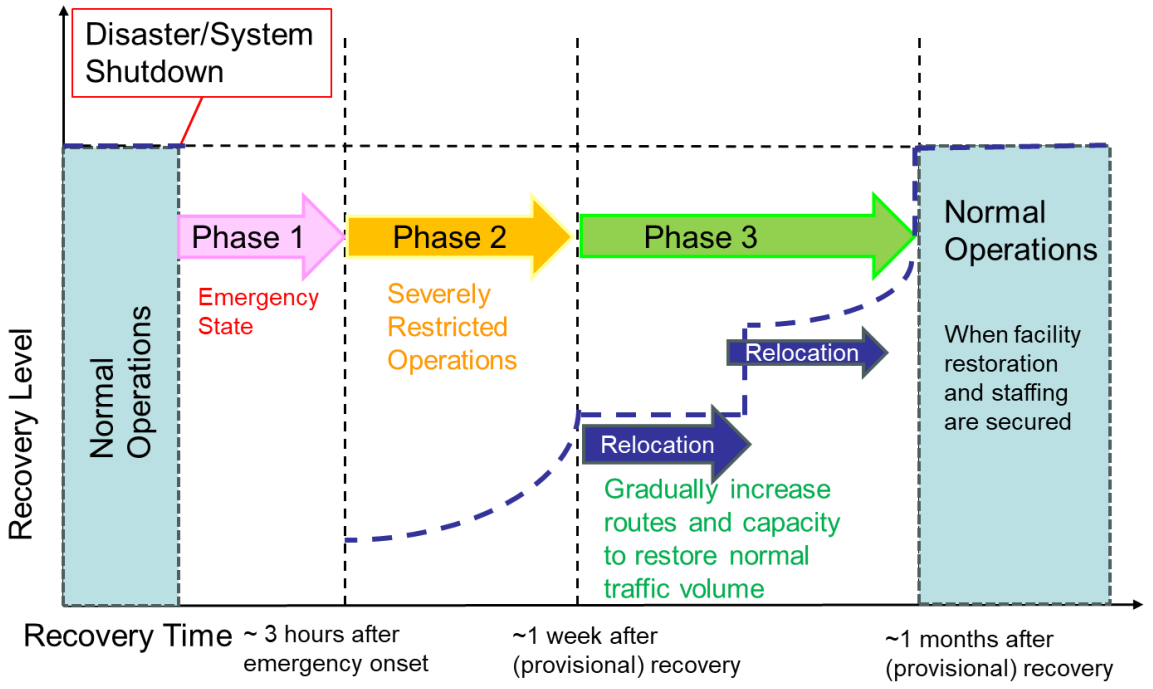
1) Immediately following the disaster, alternate units shall, to the extent practicable, ensure the safety of aircraft in flight by performing those functions of the affected unit that remain feasible.
2) Alternate units shall implement limited ATM services corresponding to the suspended functions of the affected unit in order to resume aircraft operations and ensure a minimum level of service continuity.
3) Personnel from the affected unit shall be deployed to alternate units to carry out operations, taking into account the human impact of the disaster, damage to housing, and disruption to transportation networks.



# Basic policy and Framework ①

## Operational Premises

- The post-disaster timeline is assumed to consist of an initial emergency phase lasting several hours until the situation is stabilized, followed by a phase in which minimum operations are resumed and limited services are provided. Subsequently, traffic volume is assumed to increase gradually from approximately one week after the event, with a return to normal traffic levels targeted from approximately one month after the event.
- Recovery is divided into three phases — Phase I, Phase II and Phase III — and recovery procedures are established for each phase.
- The duration of each recovery phase will vary depending on the disaster-affected facility.



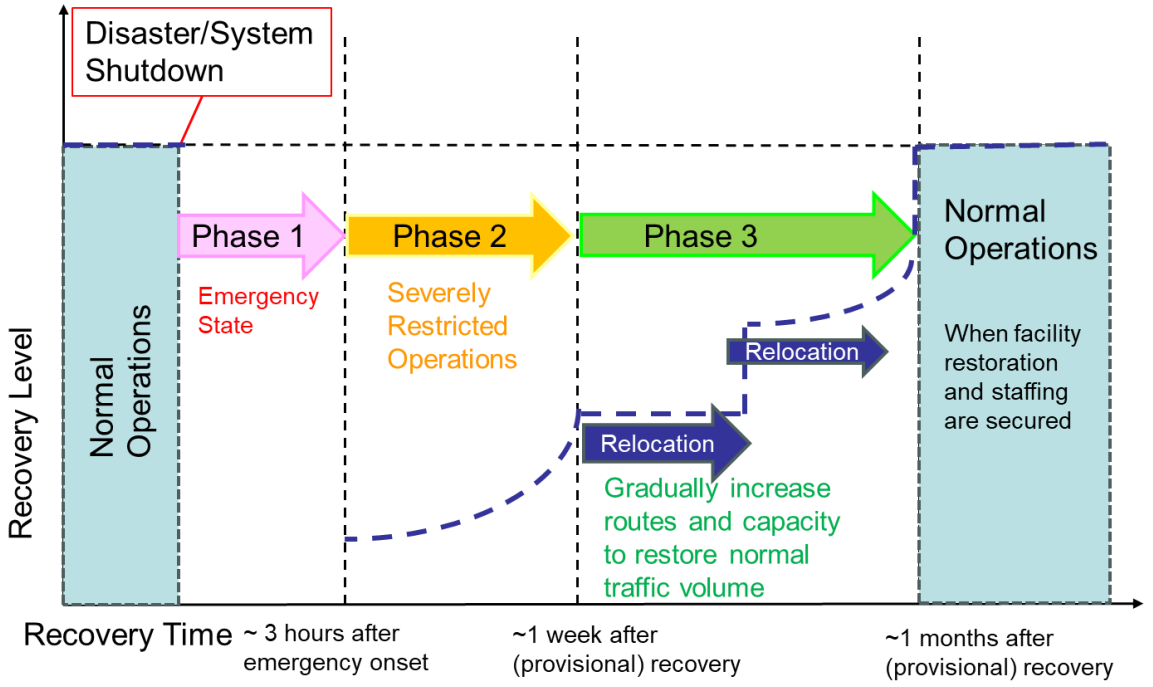
# Basic policy and Framework ②

## Basic Operational Procedure（Overview）

**＜Phase Ⅰ＞Ensuring the safety of aircraft in flight**

○ANS Department
- Establishment of the Contingency Coordination Committee (CCC)
- Coordination and information sharing with the ATMC regarding crisis management operations, etc.

○ATMC（Crisis Management Command Center）
- Establishment of the Crisis Management Command Center
- Implementation of traffic flow management measures for crisis response, including departure restrictions
- Coordination with the Task Force and external operational entities, and dissemination of information to airspace users, etc.



# Basic policy and Framework ③

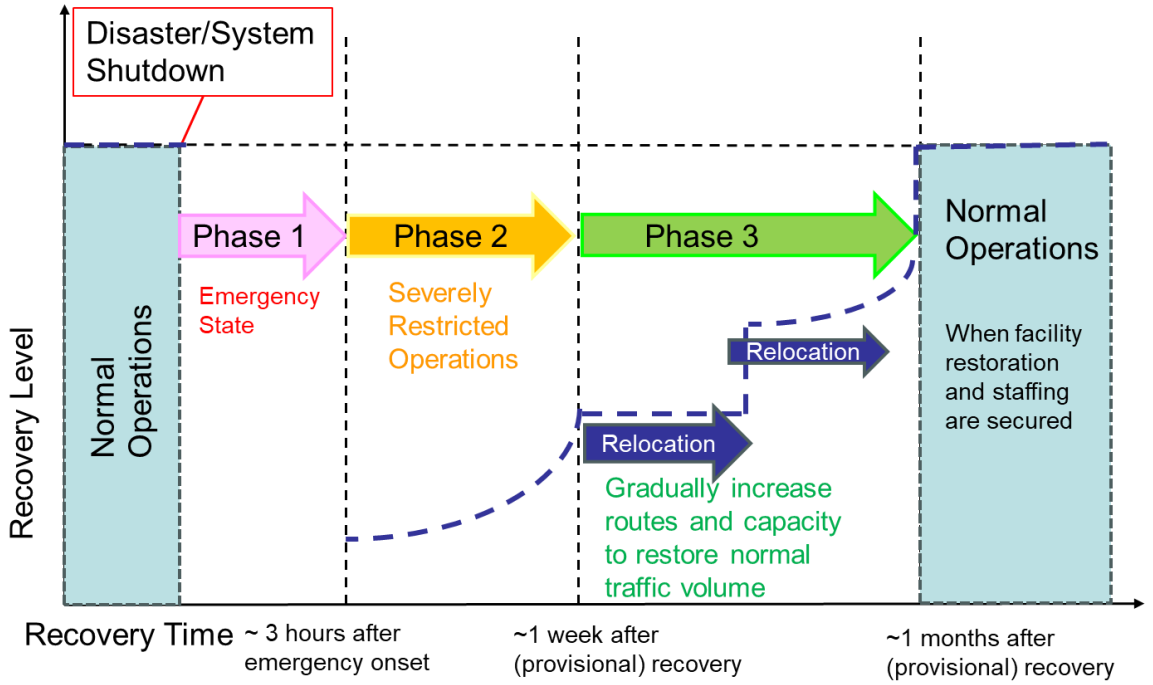
## Basic Operational Procedures（Overview）

**＜Phase II＞Ensuring Minimum Operations through Limited Routes**

○Contingency Coordination Committee (CCC)
- Examination of recovery routes for Phase III operations and determination of implementation timing

○Crisis Management Command Center
- Assessment and determination of recovery levels for Phase III operations

○Affected Units
- Initiation of relocation in accordance with instructions from the Crisis Management Command Center, once preparations are complete



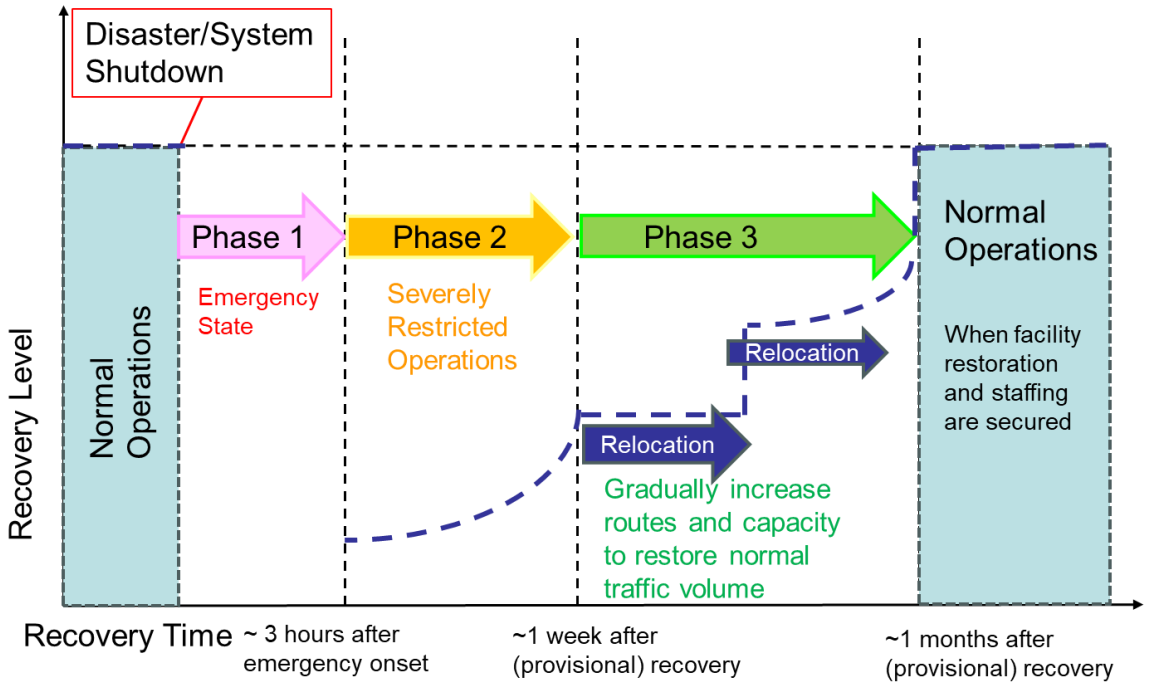
# Basic policy and Framework ③

## Basic Operational Procedures（Overview）

**＜Phase Ⅲ＞Progressive Recovery to Normal Traffic Levels**

○Affected Units

・Reporting the progress of relocation to the Crisis Management Command Center (requesting support from the CCC where relocation is difficult)



# Contingency Plan between Manila FIR and Fukuoka FIR

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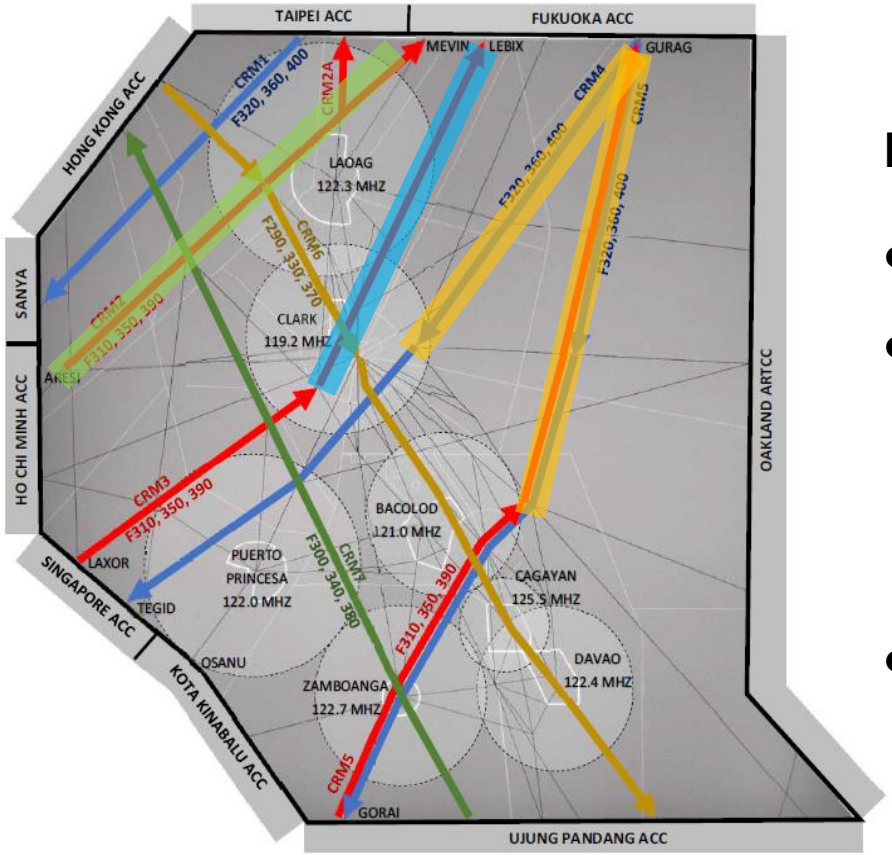
## ☐ Contingency Plan

- ICAO provisions call for States to establish measures to respond to disruptions affecting air traffic control units. Accordingly, a contingency plan has been developed for the Manila FIR.




Former Contingency Plan in the Manila FIR

## ☐ Operational Considerations

- In the Manila FIR, Contingency Route Manila (hereinafter referred to as “CRM”) had been established.
- For CRM4 and CRM5 in the northeastern part of the Manila FIR, Fukuoka ACC had been designated as the alternate unit. However, as these routes serve as entry and exit routes for the oceanic control area, VHF communications were conducted with Fukuoka ACC, whereas HF communications were conducted through the Tokyo International Air-to-Ground Station (“Tokyo Radio”).
- In addition, CRM2 (shown in green) and CRM3 (shown in blue) are both routes entering Fukuoka ACC. As aircraft are transferred to Fukuoka ACC on VHF at MEVIN or LEBIX, which serve as FIR boundary fixes, no specific additional measures are required.

# Contingency Plan between Manila FIR and Fukuoka FIR

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For CRM4 (A590, GURAG–JOM) and CRM5 (G578, GURAG–MCT), shown in orange, Fukuoka ACC was designated as the alternate unit. In practice, however, communications for these routes would be handled by Tokyo Radio, as they serve as entry and exit routes for the oceanic control area.

| ATS Route | | | | Alternate Unit | | |
|---|---|---|---|---|---|---|
| CRM4 | A590 GURAG - JOM | Southwest | FL320 FL360 FL400 | Fukuoka ACC | At JOM, contact Clark APP 119.2 MHZ. | International operators may choose to avoid the Manila FIR by using alternate ATS routes in other FIRs.<br><br>Clark APP Facility HR of OPS: H24.<br><br>Puerto Princesa APP Facility HR of OPS: 2100 - 1300. |
| | M767 JOM - TOKON | | | Clark APP | Applicable between 1300 - 2100. Clark APP to advise aircraft at TELEN, log on WSJC for ADS-C CPDLC equipped aircraft or contact Singapore HF: 6556 KHZ / 8942 KHZ.<br><br>Applicable between 2100 - 1300. Clark APP to advise aircraft at TOKON, contact Puerto Princesa APP 122.0 MHZ. | |
| | M767 TOKON - TEGID | | | Puerto Princesa APP | Puerto Princesa APP to advise aircraft at TOSOV, log on to WSJC for ADS-C CPDLC equipped aircraft or contact Singapore HF: 6556 KHZ / 8942 KHZ. | |

| ATS Route | | | | Alternate Unit | | |
|---|---|---|---|---|---|---|
| CRM5 | G578 GURAG - MCT | Southwest | FL320 FL360 FL400 | Fukuoka ACC | At MCT, contact Bacolod APP 121.0 MHZ. | International operators may choose to avoid the Manila FIR by using alternate ATS routes in other FIRs.<br><br>Bacolod APP Facility HR of OPS: H24.<br><br>Zamboanga APP / TWR Facility HR of OPS: 2100 - 1300. |
| | G578 MCT - GORAI | | | Bacolod APP | Applicable between 1300 - 2100. Bacolod APP to advise aircraft at GORAI, contact Ujung Pandang ACC 128.1 MHZ.<br><br>Applicable between 2100 - 1300. At 100 NM to ZAM, contact Zamboanga APP 122.7 MHZ. | |
| | | | | Zamboanga APP | Zambonga APP to advise aircraft at GORAI, contact Ujung Pandang ACC 128.1 MHZ. | |
| | G578 GORAI - MCT | Northeast | FL310 FL350 FL390 | Ujung Pandang ACC | Applicable between 1300 - 2100. At AROLA, contact Bacolod APP 121.0 MHZ.<br><br>Applicable between 2100 - 1300. At 100 NM to ZAM, contact Zamboanga APP 122.7 MHZ. | |
| | | | | Zamboanga APP | Zamboanga APP to advise aircraft at AROLA, contact Bacolod APP 121.0 MHZ. | |
| | G578 MCT - GURAG | | | Bacolod APP | Bacolod APP to advise aircraft at GURAG, contact Tokyo radio HF: 8903 KHZ / 4666 KHZ. | |

Composition of the Former Contingency Routes in the Manila FIR

# Contingency Plan between Manila FIR and Fukuoka FIR

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## ☐ Key Issues Related to the Conclusion of the MOU

1. Services Provided in the Contingency Segment

- No ATC service will be provided.
- Fukuoka ACC will provide flight information service (FIS) only.
- FIS will be provided only to flights operating on CRM routes.

Example of the MOU provisions

Fukuoka ACC shall:

a) Provide flight information service only to aircraft operating on CRM routes.
b) Exchange flight information on aircraft operating on CRM routes with Manila ACC, or, if Manila ACC is unavailable, with Laoag APP and/or Clark APP via commercial telephone.
c) Provide the HF frequency of Tokyo Radio to Clark APP via commercial telephone.

# Contingency Plan between Manila FIR and Fukuoka FIR

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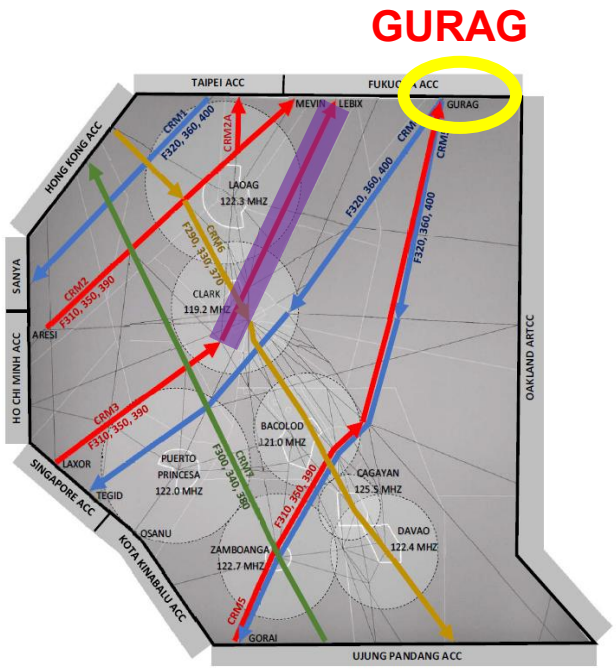
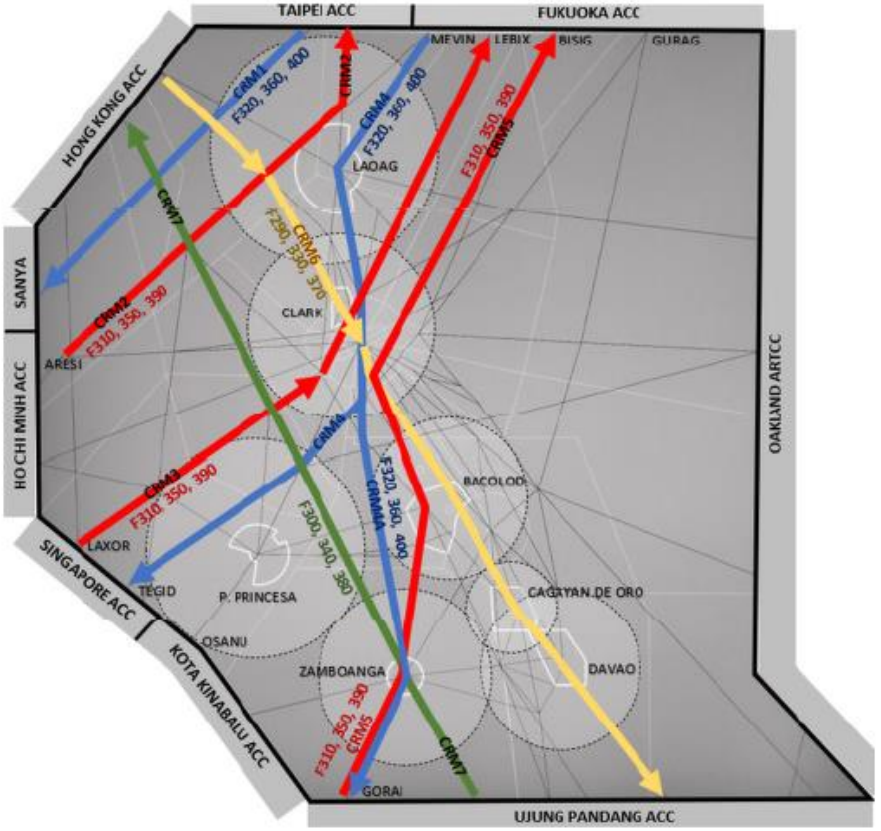
## ☐ Key Issues Related to the Conclusion of the MOU

2. Proposal of New Contingency Routes

- Since GURAG was the only exit from the Fukuoka FIR to the Manila FIR, entry/exit fixes that could be accommodated by Fukuoka ACC were proposed and examined.




Former Contingency Plan in the Manila FIR




New Contingency Plan in the Manila FIR

# Contingency Plan between Manila FIR and Fukuoka FIR

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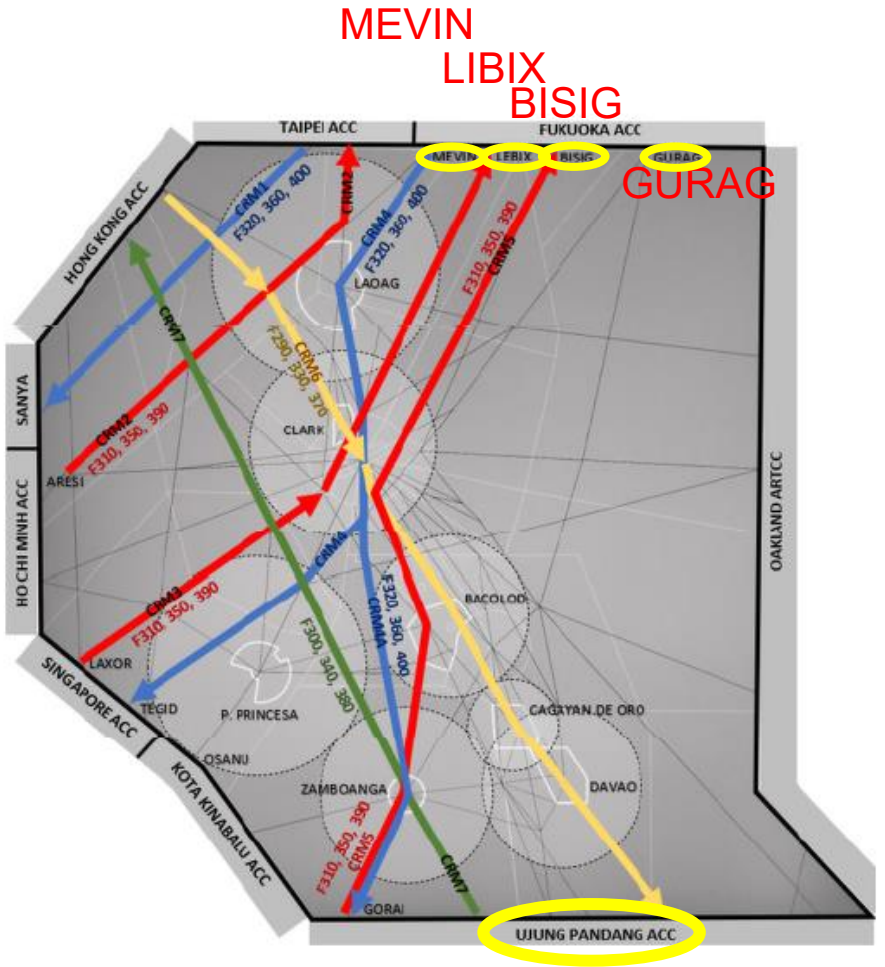
## ☐ Key Issues Related to the Conclusion of the MOU

Examinations and Proposals

- It was proposed that entry into and exit from Fukuoka airspace should be restricted to routes that do not require communication via Tokyo Radio, and that outbound traffic should be routed via MEVIN rather than GURAG, with communications transferred to Laoag APP at MEVIN.

- Agreement was reached on the establishment of CRM2 and CRM3, and detailed operational procedures were subsequently examined.

- Possible fixes at which HF communications handled by Tokyo Radio could be established were also examined. BISIG, approximately midway between LEBIX and GURAG, and GURAG were proposed to Manila as possible entry/exit fixes to/from the Ujung Pandang FIR.




Ujung Pandang FIR

# Contingency Plan between Manila FIR and Fukuoka FIR

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## ☐ Conclusion of the MOU

- Following discussions on these issues, an arrangement concerning the contingency plan was concluded between Fukuoka ACC and Manila ACC, with an effective date of March 19, 2026.
- Based on the proposal from Fukuoka ACC, the CRMs were revised.
- As a result, the transfer at GURAG was eliminated, and, except during certain time related to the CRM3, all transfers are now conducted via VHF communications with Fukuoka ACC instead of HF communications with Tokyo Radio.

**MEMORANDUM OF UNDERSTANDING**

**ON THE IMPLEMENTATION OF**

**PHILIPPINE AIR TRAFFIC MANAGEMENT CONTINGENCY PLAN**

**BETWEEN**

**FUKUOKA AREA CONTROL CENTRE**

**AND**

**MANILA AREA CONTROL CENTRE**

**Effective date: 0000 UTC, Mar 19, 2026**

1. Scope

In the event of partial or total disruption to the provision of ATS and/or the related support services in Manila FIR, the Philippine Air Traffic Management (ATM) Contingency Plan, herein referred to as "ATM contingency plan" or simply "the plan", shall be activated to ensure the continued safety of air navigation in Manila FIR.

The ATM Contingency Plan provides:

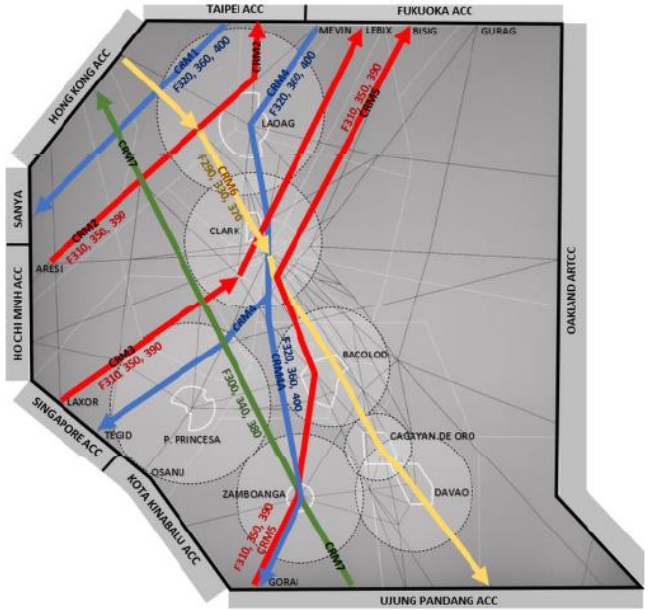
a) The contingency flight level allocation scheme (FLAS) and transfer of communication procedures as detailed in the *ATTACHMENT*.

b) The Contingency Route of Manila (CRM) structure, also outlined in the *ATTACHMENT*, using the existing published airways that will allow the transit of aircraft between Manila FIR and Fukuoka FIR.

This Plan applies exclusively to aircraft transiting (overflying) the Manila FIR. Upon activation, the procedures outlined herein shall supersede relevant provisions of the Letter of Agreement (LOA) between Manila ACC and Fukuoka ACC, where applicable.

The contingency ATC procedures are supplementary to the ICAO Standards and Recommended Practices contained in Annex 11 and in the Regional Supplementary Procedures (Doc 7030).

MOU on the Implementation of Philippine ATM Contingency Plan




Contingency Plan in the Manila FIR as Specified in the MOU

# Contingency Plan between Manila FIR and Fukuoka FIR

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## ☐ Actions upon Activation

**Contingency Plan Activation**

**Manila ACC**

- Immediately notify Fukuoka ACC
- Issue a NOTAM specifying the applicable procedures
  Note: Upon issuance of the NOTAM, the routes, flight level allocation scheme (FLAS), and communication transfer procedures set forth in the MOU shall be take effect immediately.
- Provide Fukuoka ACC with information on aircraft approved for CRM operations
- Notify operators and flight crews via NOTAM of their responsibility to maintain longitudinal separation at the altitudes assigned on the CRM

Notify

**Fukuoka ATMC**

- Take measures such as departure restrictions as appropriate depending on the situation

Share information

**Fukuoka ACC**

- Provide flight information service to aircraft flying on CRM routes
- Provide HF frequency of Tokyo RADIO with Clark APP
- Exchange information with Laoag /Clark APP if information cannot be exchanged with Manila ACC

Coordination

Take over coordination with Fukuoka ACC

**Laoag APP** | **Clark APP**

# Contingency Plan between Manila FIR and Fukuoka FIR

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## 【Reference】 Composition of the Contingency Routes as Specified in the MOU

| Contingency Route | ATS Route | Direction | FLAS | ATSu | Transfer of Communication | Remarks |
|---|---|---|---|---|---|---|
| CRM-3 | N884 LAXOR-LULBU | Northeast | FL310 FL350 FL390 | Singapore Area Control Center | *Applicable between 1300-2100UTC* At LUBAN, contact Clark 119.2 MHz<br>*Applicable between 2100-1300UTC* At LULBU, contact PTO APP 122.0 MHz | International operators may choose to avoid the Manila FIR by using alternate ATS routes in other FIRs |
| | N884 LULBU - LUBAN | | | Puerto Princesa Approach (PTO APP) | PTO APP to advise aircraft At LUBAN, contact CRK 119.2 MHz | Puerto Approach Facility Hours of Operations 2100-1300UTC |
| | N884 LUBAN-DADNU | | | Clark (CRK) | *Applicable between 1400-2200UTC* CRK to advise aircraft at DADNU, to contact Tokyo Radio on HF*<br>*Applicable between 2200-1400UTC* CRK to advise aircraft At DADNU, contact LAO APP 122.3MHz | Clark Facility Hours of Operations – H24<br>*HF frequency will be notified by Fukuoka ACC |
| | N884 DADNU-LEBIX | | | Laoag Approach (LAO APP) | LAO APP to advise aircraft At 20NM south of LEBIX (2040N on N884), contact Fukuoka ACC 123.9 MHz | LAO APP Facility Hours of Operations 2200-1400UTC |

| Contingency Route | ATS Route | Direction | FLAS | ATSu | Transfer of Communication | Remarks |
|---|---|---|---|---|---|---|
| CRM-4 | B462 MEVIN-LAO | Southwest | FL320 FL360 FL400 | Fukuoka Area Control Center | *Applicable between 1400-2200UTC* At 40 NM north of CAB (1609N on B462), contact Clark 119.2 MHz<br>*Applicable between 2200-1400UTC* At 130 NM northeast of LAO (2000N on B462), contact Laoag Approach 122.3MHz | International operators may choose to avoid the Manila FIR by using alternate ATS routes in other FIRs<br>LAO APP Facility Hours of Operations 2200-1400UTC<br>Clark Facility Hours of Operations – H24<br>Puerto Approach Facility Hours of Operations 2100-1300UTC |
| | B462 LAO- CAB | | | Laoag Approach (LAO APP) | *Applicable between 2200-1400UTC* LAO APP to advise aircraft at 40NM north of CAB (1609N on B462), contact Clark 119.2 MHz | |
| | CAB-MIA-VERDE - TAPAP | | | Clark (CRK) | *Applicable between 1300-2100UTC* CRK to advise aircraft at TAPAP, Log on WSJC for ADSC CPDLC equipped aircraft or, contact Singapore HF: 6556/8942<br>*Applicable between 2100-1300UTC* CRK to advise aircraft at TOKON, contact PTO APP 122.0 MHz | |
| | M767 TAPAP-TEGID | | | Puerto Princesa Approach (PTO APP) | *Applicable between 2100-1300UTC* PTO APP to advise aircraft At TOSOV, log on to WSJC for ADSC CPDLC equipped aircraft or, contact Singapore HF: 6556/8942 | |

| Contingency Route | ATS Route | Direction | FLAS | ATSu | Transfer of Communication | Remarks |
|---|---|---|---|---|---|---|
| CRM 4A | A461 TAPAP - ZAM | Southwest | FL320 FL360 FL400 | Clark (CRK) | CRK to advise aircraft at PUSIT, to contact Bacolod 121.0 MHz | Zamboanga APP Facility Hours of Operations 2100-1300 |
| | | | | Bacolod (BCD) | *Applicable between 1300-2100UTC* BCD to advise aircraft at GORAI, contact UPG ACC 128.1MHz<br>*Applicable between 2100-1300UTC* BCD to advise aircraft, at TINDO to contact ZAM APP 122.7MHz | |
| | G578 ZAM - GORAI | | | Zamboanga Approach (ZAM APP) | ZAM APP to advise aircraft at TABUL log-on to WAAF for ADS-C/CPDLC equipped aircraft, or At GORAI, contact UPG ACC 132.5 MHZ | |
| CRM 5 | G578 GORAI - ZAM | Northeast | FL310 FL350 FL390 | Ujung Pandang Area Control Center (UPG ACC) | *Applicable between 1300-2100UTC* UPG ACC to advise aircraft at GAYUD to contact BCD 121.0 MHz<br>*Applicable between 2100-1300UTC* UPG ACC to advise aircraft at TABUL, to contact ZAM APP 122.7MHz | International operators may choose to avoid the Manila FIR by using alternate ATS routes in other FIRs<br>Zamboanga APP Facility Hours of Operations 2100-1300 |
| CRM 5 | ZAM -W3 - IOO - B472-NUMRU – A582 - BISIG | Northeast | FL310 FL350 FL390 | Zamboanga Approach (ZAM APP) | ZAM APP to advise aircraft at GAYUD, to contact BCD 121.0 MHz | *HF frequency will be notified by Fukuoka ACC |
| | | | | Bacolod (BCD) | BCD to advise aircraft at NUMRU, to contact Clark 119.2MHz | |
| | | | | Clark (CRK) | CRK to advise aircraft at PIBEM, to contact Tokyo Radio on HF* | |

# Contingency Plan between Manila FIR and Fukuoka FIR

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【Reference】 Communication/Coordination Framework between Manila ACC and Fukuoka ACC

- Normal Conditions

**Communication Systems**

- Use of communication systems for coordination should be in the following order of priority:

  (1) Direct controller-to-controller voice speech circuit.

  (2) Commercial telephone.
  (Commercial telephone numbers are shown in Attachment.)

  (3) Aeronautical Fixed Telecommunication Network (AFTN).

  (4) Any other means of communications available.

- The transferring ACC should obtain an acknowledgment receipt for the transfer message of the TCP sent by AFTN.

- Emergency Conditions (when direct verbal coordination between controllers is not available)

**Commercial telephone numbers for ATC coordination in case of direct controller-to-controller voice speech circuit outage**

(1) Fukuoka ACC

Tel: 81-92-607-1436, 81-92-607-9974
81-92-608-8894, 81-92-608-8879 (Oceanic Sector 4 and/or 5)

(2) Manila ACC

Tel: (632) 8672-7723, (632) 8851-6956, (632) 8851-7080