

International Civil Aviation Organization

The Third Meeting of the Regional ATM Contingency Plan Task Force (RACP/TF/3)

Bangkok, Thailand, 12 – 15 November 2013

Agenda Item 3: Review the status of Asia/Pacific ATM Contingency Plans

REVIEW THE STATUS OF ASIA/PACIFIC ATM CONTINGENCY PLANS

(Presented by the Secretariat)

SUMMARY

This paper presents the latest update of Asia/Pacific Region ATM Contingency Plans, and proposes that the Task Force implements a process of regular update from States with contingency planning assessed as either marginal or incomplete, and to gather information from non-respondent States.

This paper relates to –

Strategic Objectives:

- A: Safety Enhance global civil aviation safety
- C: Environmental Protection and Sustainable Development of Air Transport Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment

Global Plan Initiatives:

- GPI-6 Air traffic flow management
- GPI-7 Dynamic and flexible ATS route management
- GPI-8 Collaborative airspace design and management
- GPI-10 Terminal area design and management
- GPI-12 Functional integration of ground systems with airborne systems
- GPI-13 Aerodrome design and management
- GPI-16 Decision support systems and alerting systems
- GPI-18 Aeronautical information
- GPI-19 Meteorological Systems
- GPI-22 Communication infrastructure

1. INTRODUCTION

1.1 RACP/TF/1 (Bangkok, Thailand, 17 – 19 April 2012) formed a Contingency Plan Task Force Review Team to review relevant portions of Level 1 (internal State) and Level 2 (Inter-State) ATM Contingency Plans, to identify areas where ATM contingency planning required improvement and to support the development of a Level 3 (Regional) ATM Contingency plan, based on Basic Planning Elements agreed by the Task Force.

1.2 The results of the review were reported to RACP/TF/2 (Bangkok, Thailand, 12 - 15 March 2013. Responses to a review questionnaire had been provided by only 15 Administrations.

1.3 RACP/TF should consider further activities to improve the overall understanding of Regional ATM contingency readiness, including updating information from Administrations assessed as having either *marginal* or *incomplete* contingency planning in place, and to gather information from non-respondent States.

2. **DISCUSSION**

2.1 The Contingency Readiness Self-Assessment Questionnaire used to gather information for analysis and reporting to RACP/TF/2 is provided at **Attachment A.**

2.2 **Attachment B** provides the results of State and Regional ATM contingency readiness analysis, as updated by any information received since RACP/TF/2.

2.3 No mechanism was established to further update the information or analysis post RACP/TF/2. Unless changes are made to the Questionnaire there should be no need for Administrations assessed as having *robust* Level 1 and Level 2 Contingency Plans to report further. There is, however, an ongoing need for monitoring and analysis of contingency readiness, any improvement among Administrations assessed as having *marginal* or *incomplete* Level 1 or Level 2 plans, and to obtain information from those that did not respond to the survey.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the Contingency Readiness Self-Assessment Questionnaire;
- b) note the contingency readiness of responding Administrations; and
- c) agree to a process for regular updating of information from Administrations assessed as having marginal or incomplete Level 1 or Level 2 plans, and for gathering information from non-responding Administrations.

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State Self-Assessment of Readiness: Level 1 – Internal State (Domestic) - Contingency Plans Level 2 – Inter-State – Contingency Plans

Reference: Annex 11 to the Convention on Civil Aviation

See Explanatory Notes attached to this questionnaire

Name of State / Administration:

| Points-of-Contact for | Contingency Plan Task Force Review Team: |
|-----------------------|--|
| | |
| Primary Contact | |
| Name : | |
| Position Title: | |
| Telephone: | |
| Fax: | |
| Email : | |
| | |
| Secondary Contact: | |
| Name: | |
| Position Title: | |
| Telephone: | |
| Fax: | |
| Email: | |

Level 1 – Internal State (Domestic) Contingency Plans

| Number of ATS Units within the State: | | | | | | | | | | | | | | |
|---------------------------------------|---------------------|-------------------|--------|--|--|--|--|--|--|--|--|--|--|--|
| Area / En-route | Approach / Terminal | Aerodrome / Tower | Others | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |

| Number of ATS Units with Domestic Contingency Plans: | | | | | | | | | | | | | |
|--|---------------------|-------------------|--------|--|--|--|--|--|--|--|--|--|--|
| Area / En-route | Approach / Terminal | Aerodrome / Tower | Others | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

| Does your State have a broader plan to coordinate the Contingency Plans of ATS Units at a National Level? | YES 🗆 | NO 🗆 |
|---|-------|------|
| | | |
| Are your State's Contingency Plans subjected to a regular program of testing by desktop exercises or other suitable methods? | YES 🗆 | NO 🗆 |
| | | |
| Are your State's Contingency Plans routinely reviewed and amended in response to changed operational circumstances, testing or lessons learned? | YES 🗆 | NO 🗆 |

| Do your State's Level 1 – Internal State - (Domestic) Contingency Plans address the following Category 1 and 2 events? (See explanatory notes) | | | | | | | | | | |
|---|-------|------|--|--|--|--|--|--|--|--|
| ATM/CNS system failure or degradation? | YES 🗆 | NO 🗆 | | | | | | | | |
| Industrial Action | YES 🗆 | NO 🗆 | | | | | | | | |
| Volcanic Ash Cloud | YES 🗆 | NO 🗆 | | | | | | | | |
| Earthquake | YES 🗆 | NO 🗆 | | | | | | | | |
| Inundation of ATM/CNS facilities by Tsunami or Storm Surge | YES 🗆 | NO 🗆 | | | | | | | | |
| Nuclear Emergency | YES 🗆 | NO 🗆 | | | | | | | | |
| Pandemic | YES 🗆 | NO 🗆 | | | | | | | | |
| National Security | YES 🗆 | NO 🗆 | | | | | | | | |

<u>Level 2 – Inter-State - Contingency Plans</u>

| Does your State have existing formal Inter-State Contingency Plan | YES 🗆 | NO 🗆 |
|---|-------|------|
| agreements with neighbouring States? | | |

| If YES, with which | States? (List) | | |
|--------------------|----------------|------|------|
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| Do your State's Level 2 – Inter-State – Contingency Plans (i | if any) include any of the follo | wing? |
|--|----------------------------------|-------|
| Contingency route structure | YES 🗆 | NO 🗆 |
| | | 1 |
| Flight Level Allocation Scheme | YES 🗆 | NO 🗆 |
| | | |
| Minimum longitudinal Spacing | YES 🗆 | NO 🗆 |
| | | |
| Frequency transfer arrangements | YES 🗆 | NO 🗆 |
| | | |
| Delegation of ATC separation services | YES 🗆 | NO 🗆 |
| | | |
| Delegation of FIS and SAR alerting services | YES 🗆 | NO 🗆 |

Basic Plan Elements

Do your State's Contingency Plans incorporate the following <u>DRAFT</u> Basic Plan Elements?

Indicate in the checkboxes any component of the Draft BPE currently included in your State's Contingency Plans

Element 1: Administration

- *Record of signatories, version control and records of amendment.*
- Definition of the objectives, applicable airspace and operations, and exclusions.

Element 2: Plan Management

- List of States and FIRs affected, and the agreed methods of notification in the event of activation of the plan.
- Details of the arrangements in place for management of the plan, including provisions for a Central Coordinating Committee to authorize and oversee the activation of the plan and arrange for ATS restoration in the event of an extended outage, an ATM Operational
 Contingency Group for 24 hour coordination of operational and supporting activities under the plan, and the terms-of-reference, structure and contact details for each.

Element 3: Airspace

• Procedures and determinants for implementation and activation of Special Use Airspace including, where necessary, Restricted or Prohibited Areas in territorial airspace or Danger Areas over the high seas.

Element 4: ATM Procedures

- Details of re-routing to avoid the whole or part of the airspace concerned, normally involving the establishment of:
 - Additional routes or route segments, with associated conditions for their use; or
 - A simplified route network through the airspace concerned, together with a Flight Level Allocation Scheme.
- Details of how domestic traffic, departing and arriving flights and SAR, humanitarian and State aircraft flights will be managed during the contingency period.
- Procedures for transition from normal service levels to contingency services, and resumption of normal service.
- *Provisions for reduced levels of service, if any, within the affected airspace.*
- Establishment of arrangements for controlled access to the contingency area to prevent overloading of the contingency system
- Procedures for adjacent service providers to establish longitudinal separation at the entry point, and to maintain such separation through the airspace, and/or reassignment of responsibility for providing air traffic services over the high seas or in delegated airspace.
- Coordination and frequency transfer procedures for aircraft entering and leaving the affected airspace.

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Element 5: Pilot/Operator Procedures

- Requirements for flight plan submission during the contingency period, including contingency route planning requirements and arrangements if airspace is closed when no contingency route is available.
- Emergency procedures, including in-flight requirements for broadcast of position and other information, and for continuous listening watch on specified pilot-to-pilot and GUARD VHF frequencies.
- *Requirements for display of navigation and anti-collision lights.*
- Requirements for climbing and descending well to the right of centerline of specifically identified routes.
- Requirements for all operations to be conducted in accordance with IFR, including operating at IFR levels from the relevant Table of Cruising Levels in Appendix 3 of Annex 2, except where modified by a Flight Level Allocation Scheme.

Element 6: Communications Facilities and Procedures

- Provision and operation of adequate air-ground communications, AFTN and ATS direct speech links.
- Specification of radio frequencies to be used for particular contingency routes.
- Log-on and connection management for CPDLC aircraft, where appropriate.
- Use of ADS-C automatic position reporting in lieu of voice position reporting to ATS.

Element 7: Aeronautical Support Services including AIS and MET

- AIP information regarding Contingency Planning, and notification by NOTAM of anticipated or actual disruption of air traffic services and/or supporting services, including associated contingency arrangements, as early as practicable and, in the case of foreseeable disruption, not less than 48 hours in advance.
- Reassignment to adjacent States of the responsibility for providing meteorological information and information on the status of navigation aids.

Element 8: Contact Details

- Contact details for the RCC responsible for the affected FIR, and coordination arrangements.
- Contact details of adjacent States and other international organizations participating in the contingency plan.

Contingency Plan Task Force and the Task Force Review Team

Annex 11 to the Convention on Civil Aviation requires that ATS authorities shall develop and promulgate contingency plans for implementation in the event of disruption, or potential disruption, of air traffic services and related supporting services in the airspace for which they are responsible for the provision of such services.

The 47th Conference of Directors General of the Asia/Pacific Region (Macao, China, October 2010) requested the ICAO Regional Office to consider the establishment of a task force for planning, coordination and implementation of a regional ATM Contingency Plan (Action Item 47/1).

Subsequently, the 22nd Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/22, Bangkok, Thailand, June 2011) formed a Regional ATM Contingency Planning Task Force (RACP/TF) for planning, coordination and implementation of a regional ATM contingency plan.

The RACP/TF Terms of Reference directed the Task Force to review the current status of ATM Contingency Plans and the contingency preparedness of Asia and Pacific Region States, and identify areas where ATM contingency planning requires improvement, and to make recommendations on those areas of improvement.

The 1st Meeting of the Task Force (RACP/TF/1, Bangkok, Thailand April 2012) formed a Task Force Review Team to review relevant portions of Level 1 (internal State) and Level 2 (Inter-State) ATM Contingency Plans, and identify areas were ATM contingency planning required improvement, in order to support the development of a Level 3 (Regional) ATM Contingency Plan, based on Basic Planning Elements (BPE) agreed by the Task Force.

Contingency Plan Categories

Contingency categories being considered by RACP/TF are:

- Category A Airspace Safe, but Restricted or No ATS, due to causal events such as industrial action, pandemic, earthquake, nuclear emergency affecting the provision of ATS, or ATM system failure or degradation;
- Category B Airspace Not Safe, due to causal events such as Volcanic Ash Cloud (VAC), nuclear emergency, military activity; and
- **Category C Airspace Not Available**, due to causal events such as pandemic, national security normally a political decision.

Contingency Plan Levels

Contingency Plan levels being considered by RACP/TF are:

- Level 1 Internal State (Domestic) contingency plans, with little or no effect on external air navigation service providers;
- Level 2 coordinated Inter-State contingency plans involving two or more States; and
- Level 3 sub-Regional or Regional contingency plans, detailing contingency arrangements affecting airspace users or services provided outside the contingency airspace.

Basic Plan Elements

Contingency Plans should consist of a standardized set of Basic Plan Elements (BPE) for each contingency category and plan level, depending on the circumstances. The draft BPEs used in this questionnaire were considered by RACP/TF/1, and will continue to be developed in-use by the Task Force.

WP03 Attachment B State and Regional ATM Contingency Readiness

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|-------------------|---|---------------------------------------|---------------------|------------------------|----------|-------------------------|-----------------|-----------------|---------------------------|----------|----------------------|----------|-----------------|----------|----------------------------|---------------|----------------------------|--------------------------|-------------------|------|--------------------|---------|-------------------------|---------------------------|-------------|----------------|-------------------|-------------|-----------------|--------|---|----------------|--|-------------------|
| | | xamples | faha nistan | Biraristan Istralia | ngladesh | uren unei Darussalam | ambodia nina | ong Kong, China | acao, China ok Islands | PR Korea | ii ench Polynesia | dia | do nesia pan | | orea, Republic of o PDR | alaysia | aldives arshall Islands | icronesia, Fed States of | ongolia vanmar | auru | epal ew Zealand | ikistan | alau apua New Guinea | illippines(working draft) | ngapor e | lo mon Islands | i Lanka ailand | mor - Leste | nga S.A | anuatu | iet Nam eported States Prepare dness (percenti | | | |
| Reported Contin | ngency Plan Status | <u>ن</u> 1 1 | 0 4 | ₹ ₹ 1 | 1 | 8 8 | <u> </u> | <u>Ť</u> 1 | <u>Σ ŭ</u> | ā | <u>ਛੋ</u> 1 1 | <u> </u> | <u> </u> | ÿ. | 1 | <u>Σ</u> 1 | <u>Σ Σ</u> 1 | Σ | <u>Σ Σ</u> 1 | ž | <u>ž ž</u> 1 1 | 1 | å å | <u>a</u> | <u>n is</u> | S S | <u>お 亡</u> 1 1 | Ē | <u><u> </u></u> | | > £ | <u><u></u></u> | Reported Contingency Plan Status | |
| | Level 1 Plans | | - | | | | | | - | | | | | | | | - | | | | | | | | | | | | | | | | Level 1 Plans | |
| | Percentage of ATSU with Level 1 Plan | 2 1 | 1 | 2 | | | | 2 | 2 | | | 0 | | | | 0 | | | 2 | | 2 | 2 | | 0 | 2 | | 0 0 | | 2 2 | | | 25 | | |
| Coordination, | Internal Coordination | | 0 | 1 | | | | | 0 | | | 1 | | | | 1 | | | 0 | | 1 | | | 0 | 1 | | 1 1 | | 1 1 | | | | Internal Coordination | Coordination, |
| Testing and | Regular Testing | | 0 | 1 | | | | | 0 | | | 1 | | | | 0 | | | 1 | | | 1 | | 0 | 1 | | 0 0 | | 1 1 | | 73 | | Regular Testing | Testing and |
| Review | Routine and event driven review | | 0 | 1 | | | | | 0 | | | 1 | - | | | 1 | | | 1 | | | 1 | | 0 | 1 | | 1 1 | | 1 1 | | 93 | 33 | Routine and event driven review ATM/CNS System Failure or Degradation | Review |
| | ATM/CNS System Failure or Degradation Staff Availability | | 1 | 1 | | | | 1 1 | 1 | | | 1 1 | | | | 1 0 | | | 1 | | | 1 0 | | 1 | 1 | | 0 1 0 1 | | 1 1 1 | | 60 | | ATM/CNS System Failure or Degradation Staff Availability | |
| | Volcanic Ash Cloud | | 0 | 1 | | | | | 0 | | | 0 | | | | 1 | | | 1 | | | 0 | | 1 | 1 | | 0 0 | | 0 1 | | | | Volcanic Ash Cloud | |
| Category | Earthquake | | 0 | 1 | | | | | 0 | | | 1 | | | | 0 | | | 1 | | | õ | | 1 | 1 | | 0 1 | | 1 1 | | | | Earthquake | Category |
| 1 and 2 Events | Inundation | 1 1 | 0 | 1 | | | | | 0 | | 1 | 1 | 0 | | | 0 | | | 1 | | 1 | 0 | | 0 | 1 | | 0 1 | | 1 1 | | | 21 | Inundation | 1 and 2 Events |
| Events | Nuclear Emergency | | 0 | 0 | | | | 0 | 0 | | | 1 | | | | 0 | | | 0 |) | 0 | | | 0 | 1 | | 0 0 | | 0 1 | | 20 | | Nuclear Emergency | Events |
| | Pandemic | | 0 | 1 | | | | 1 | | | | 1 | | | | 0 | | | 1 | | | 0 | | 0 | 1 | | 0 1 | | 0 1 | | 53 | | Pandemic | |
| - | National Security | | 0 | 1 | | | | 0 | | | | 1 | - | | | 1 | | | 1 | | | 0 | | 0 | 1 | | 0 1 | | 0 1 | | 60 | | National Security | |
| | Administration (2) Plan Management (2) | 2 1 2 1 | 0 | 2 | | | | | 1 | | | 2 2 | | | | 2 | | | 2 | | | 2 2 | | 2 | 2 | | 22 22 | | 2 2 1 2 | | 97 | | Administration (2) Plan Management (2) | |
| DRAFT Basic | Aimpace (1) | 1 1 | | 1 | | | | | 0 | | | 1 | | | | 1 | | | 1 | | | 0 | | 0 | 1 | | 22 01 | | 0 0 | | | | Airspace (1) | |
| | ATM Procedures (7) | 7 2 | | 4 | | | | | 0 | | | 7 | | | | 7 | | | 7 | | | 5 | | 5 | 7 | | 67 | | 6 4 | | | | ATM Procedures (7) | DRAFT Basic |
| (No. of sub- | Pilot/Aircraft Operator Procedures (5) | 5 2 | | 3 | | | | | 0 | | | 5 | | | | 3 | | | 5 | | | 4 | | 5 | 3 | | 55 | | 1 2 | | | | Pilot/Aircraft Operator Procedures (5) | Plan Elements |
| elements) | Communications Facilities and Procedures (4) | 4 2 | | 2 | | | | 2 | 0 | | 4 | 4 | 4 | | | 4 | | | 4 | Ļ | 4 | 2 | | 2 | 4 | | 1 2 | | 2 0 | | | | Communications Facilities and Procedures (4) | |
| | Aeronautical Support Services (2) | 2 2 | | 1 | | | | 0 | 0 | | 2 | 2 | 2 | | | 2 | | | 2 | | 2 | 2 | | 2 | 1 | | 12 | | 2 1 | | 80 | 29 | Aeronautical Support Services (2) | |
| | Contact Details (2) | 2 2 | | 0 | | | | | 0 | | | 2 | | | | 2 | | | 2 | | | 2 | | 2 | 1 | | 22 | | 2 1 | | 80 | 29 | | |
| LEVEL 1 PLANS | | 39 21 | - | 27 | | | | 20 | | 1 1 | | 36 3 | | | | 29 | | | 37 | - | | 26 | | 22 | 35 | | 2 32 | | 26 20 | | 75 | 27 | | |
| Level 1 Readine | ss (Incomplete, Marginal or Robust) Level 2 Plans | RM | | Μ | | | | м | | | к | R | ĸ | | _ | м | | 4 | R | | к | м | | M | к | _ | VI R | | MN | | | | Level 1 Readiness (Incomplete, Marginal or Robu Level 2 Plans | ist) |
| | Formal Inter-State Agreements (LoA or MoU) | 1 1 | 0 | 1 | | | | 0 | 0 | | 1 | 1 | 0 | | | 0 | | | 1 | | 1 | 0 | | 1 | 0 | | 0 0 | | 1 1 | | 53 | 19 | Formal Inter-State Agreements (LoA or MoU) | 1 |
| | Contingency Route Structure | | 0 | 1 | | | | | 0 | | | 0 | | | | 0 | | | 1 | | | 0 | | 1 | 1 | | 1 1 | | 0 0 | | | | Contingency Route Structure | |
| Level 2 | Flight Level Allocation Scheme | | 0 | 1 | | | | | 0 | | 1 | 0 | 1 | | | 0 | | | 1 | | 0 | | | 1 | 1 | | 1 1 | | 0 0 | | | | Flight Level Allocation Scheme | Level 2 |
| Inclusions | Minimum Longitudinal Spacing | 1 0 | 0 | 1 | | | | 0 | 0 | | 1 | 0 | 1 | | | 0 | | | 1 | | 0 | 0 | | 1 | 1 | | 1 1 | | 0 0 | | 53 | | Minimum Longitudinal Spacing | Inclusions |
| menusions | Frequency Transfer Arrangements | 1 1 | | 1 | | | | | 0 | | | 0 | - | | | 0 | | | 1 | | | 0 | | 1 | 1 | | | | 1 0 | | 67 | | Frequency Transfer Arrangements | merusions |
| | Delegation of ATC Separation | | 0 | 0 | | | | | 0 | | | 0 | 0 | | | 0 | | | 1 | | | 0 | | 0 | 1 | | 1 0 | | 1 0 | | 33 | | Delegation of ATC Separation | |
| Level 2 Plan Sco | Delegation of FIS and SAR Alerting Services | 1 1 | 1 | 1 | | | | 0 | | | | 0 | 1 | | | 0 | | | 1 | | | 0 | | 1 | 1 | | 1 1 | | 1 0 | | 67 | 24 | Delegation of FIS and SAR Alerting Services Level 2 Plan Scores | |
| Level 2 Plan Sco | | 7 4 | | 6 | | | - | 0 | 0 | 1 1 | | 1 | | <u> </u> | - | 0 | | 1 1 | 7 R | | 3 M | 0 | - | 6 | 6 | | 65 RM | | 4 1 M 1 | | 54 | 19 | Overall State Readiness | |
| Level 2 Pidli Rea | anness . | N IVI | | ĸ | L | | I | | | | I K | ا کھر | al i | | | - | | | K | | TVI | | | 199 | ĸ | | | | | | | 1 | overall state headiness | |
| | Level 1 Plans 0 to 15 = Incomplete 16 to 29 = Marginal 30 - 39 = Robust Level 2 Plans Incomplete: 0 - 2 Marginal: 3 - 5 Robust: 6 - 7 Decision 1/1 - ATM Contingency Plan Review Team Form That, an ATM Contingency Plan Task Force Review Team be Force, that considered relevant portions of Level 1 (internal 5) State) ATM Contingency Plan an identified areas where AT | establishe ate) and L M conting | evel 2 (gency p | (Inter- lanning | g | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | required improvement, in order to support the development of Contingency Plan, based on Basic Planning Elements agreed I | | | | .v1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |