



ICAO

International Civil Aviation Organization

**Tenth Meeting of the Air Traffic Management Sub-Group  
(ATM/SG/10) of APANPIRG**

Video Teleconference, 17 – 21 October 2022

**Agenda Item 6: ATM Coordination (Meetings, Route Development, Contingency Planning)**

**REGIONAL ATM CONTINGENCY PLANNING AND CONTINGENCY OPERATIONS  
UPDATE**

(Presented by the Secretary)

**SUMMARY**

This paper presents information on ATM contingency planning in the Asia/Pacific Region, including an update of State-reported implementation of the performance expectations of the Asia/Pacific Regional ATM Contingency Plan. A brief outline of ATM contingency operations in the APAC Region since the last report to ATM/SG/9 is also provided.

**1. INTRODUCTION**

1.1 The *Asia/Pacific Regional ATM Contingency Plan*, developed by the Regional ATM Contingency Plan Task Force (RACP/TF), was first adopted by the Twenty-Seventh Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/27) in September 2016. Version 3.0 of the Contingency Plan was approved by ATM/SG/7 in August 2019.

1.2 The Contingency Plan and the Regional ATM Contingency Plan Monitoring and Reporting form are available on the ICAO Regional Office eDocuments web-page (ATM section, Contingency sub-section) at:

<https://www.icao.int/APAC/Pages/eDocs.aspx>.

1.3 The Contingency Plan is subsidiary to the *Asia/Pacific Seamless ANS Plan*.

**2. DISCUSSION**

Regional ATM Contingency Plan Performance Expectations

2.1 The *Asia/Pacific Regional ATM Contingency Plan* includes in its performance improvement plan the following performance expectations relating to promulgation and reporting of State contingency plans:

7.20 *National ATM Contingency Plans should be promulgated on the website of the Air Navigation Service Provider.*

7.21 *States should report the status of their contingency planning to the ICAO APAC Regional Office, as follows:*

1. *Promulgation of the national ATM Contingency Plan, together with the hyperlink to the website location of the Plan;*
2. *State Contingency Points-of-Contact; and*

3. *The establishment of contingency arrangements with each neighbouring State.*

*Note 1: Information of a sensitive nature such as that related to matters of national security need not be included in promulgated contingency plans.*

*Note 2: the Regional List of State Contingency Points-of-Contact is provided at **Appendix H**.*

*Note 3: APANPIRG Air Navigation Deficiencies may be raised against the provisions of Annex 11 paragraph 2.30 for States that do not report promulgation of their national ATS contingency plan.*

7.22 *States should report the status of implementation of the performance expectations of the Regional ATM Contingency Plan at least once annually, by not later than 31 May each year, using the Regional ATM Contingency Plan Monitoring and Reporting Form.*

2.2 The performance expectations of the Regional ATM Contingency Plan were expected to be implemented by 10 November 2016, reflecting the Annex 11 standard requiring that Air Traffic Services (ATS) Authorities shall develop and promulgate contingency plans.

Regional ATM Contingency Plan Status Reporting

2.3 Regional ATM Contingency Plan Monitoring and Reporting status report forms have been received as for the following reporting years:

2019 – Australia, Bangladesh, Hong Kong China, Macao China, France (New Caledonia), Indonesia, Japan, Malaysia, Myanmar, Nepal, Philippines, Singapore, Viet Nam, United States.

2020 – Bangladesh, Cambodia, Hong Kong China, Macao China, Indonesia, Pakistan, Republic of Korea, Thailand, Viet Nam.

2021 – Hong Kong China, Macao China, Indonesia, Myanmar, Nepal Pakistan, Republic of Korea, Singapore, USA, Thailand, Viet Nam.

2022 – Bangladesh, Cambodia, Indonesia, Nepal, Pakistan, Republic of Korea, Thailand, Viet Nam.

2.4 Using standardized regional criteria first used for assessment of State implementation of the elements of the APAC Performance-Based Navigation (PBN) Implementation Plan, and now applied to various other regional plans in the ATM, AIM and SAR fields, status reports are assessed by the Regional Office on the basis of the overall implementation of applicable elements of the Regional ATM Contingency Plan:

90 – 100% = *Robust*

70 – 89% = *Marginal*

0 – 69% = *Incomplete*

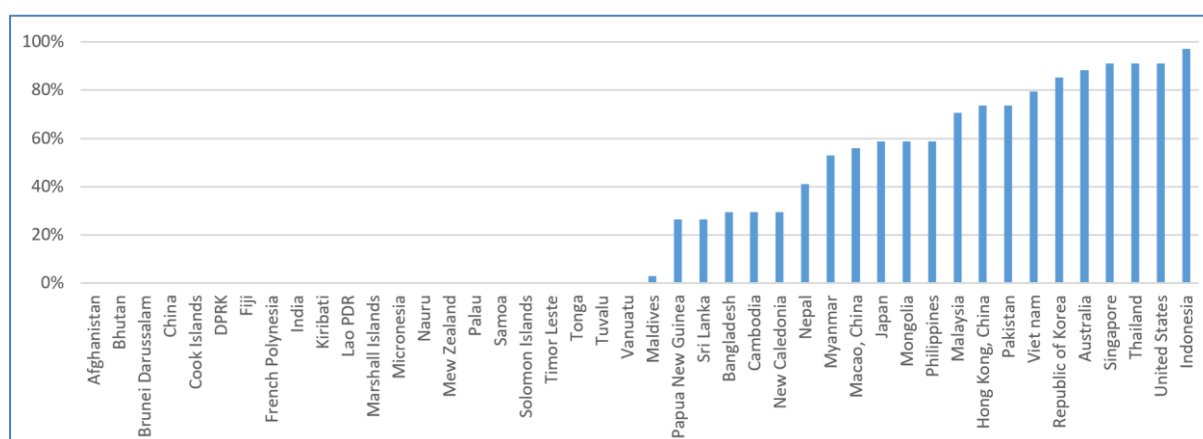
2.5 **Table 1** summarizes Asia/Pacific Region Contingency Plan implementation status, as reported to the ICAO Regional Office. The collated data provided in State reports is provided in **Attachment A**:

<b>Administration</b>	<b>% Implementation</b>	<b>Implementation Status</b>
Afghanistan	<i>no report</i>	Did Not Report
Australia	88	Marginal
Bangladesh	29	Incomplete
Bhutan	<i>no report</i>	Did Not Report
Brunei Darussalam	<i>no report</i>	Did Not Report
Cambodia	29 ↑	Incomplete
China	<i>no report</i>	Did Not Report
Hong Kong, China	74 ↑	Marginal
Macao, China	56	Incomplete
Cook Islands	<i>no report</i>	Did Not Report
Fiji	<i>no report</i>	Did Not Report
France (French Polynesia)	<i>no report</i>	Did Not Report
DPR Korea	<i>no report</i>	Did Not Report
India	<i>no report</i>	Did Not Report
Indonesia	97	Robust
Japan	59	Incomplete
Kiribati	<i>no report</i>	Did Not Report
Lao PDR	<i>no report</i>	Did Not Report
Malaysia	71	Marginal
Maldives	3	Incomplete
Marshall Islands	<i>no report</i>	Did Not Report
Micronesia	<i>no report</i>	Did Not Report
Mongolia	59	Incomplete
Myanmar	53 ↑	Incomplete
Nauru	<i>no report</i>	Did Not Report
Nepal	41 ↓	Incomplete
New Caledonia	29	Incomplete
New Zealand	<i>no report</i>	Did Not Report
Pakistan	74 ↑	Marginal
Palau	<i>no report</i>	Did Not Report
Papua New Guinea	26	Incomplete
Philippines	59	Incomplete
Republic of Korea	85 ↑	Marginal
Samoa	<i>no report</i>	Did Not Report

Administration	% Implementation	Implementation Status
Singapore	91	Robust
Solomon Islands	<i>no report</i>	Did Not Report
Sri Lanka	26	Incomplete
Timor Leste	<i>no report</i>	Did Not Report
Tonga	<i>no report</i>	Did Not Report
<b>Thailand</b>	91 ↑	Robust
Tuvalu	<i>no report</i>	Did Not Report
United States	91 ↓	Robust
Vanuatu	<i>no report</i>	Did Not Report
Viet Nam	79	Marginal

**Table 1:** Reported ATM Contingency Plan Implementation Status

2.6 **Figure 1** illustrates overall reported implementation status.



**Figure 1:** Regional ATM Contingency Plan – Overall Implementation Status

2.7 The meeting is reminded that the ICAO Regional Office is expected to annually report the receipt, or non-receipt, of completed Contingency Plan Monitoring and Reporting Forms, in accordance with the performance expectations of the Regional ATM Contingency Plan, for consideration for addition to the APANPIRG ANS Deficiencies List. This is related to the standard in Annex 11 – *Air Traffic Services* relating to ATM Contingency Planning:

### 2.32 Contingency Arrangements

*Air traffic services 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. Such contingency plans shall be developed with the assistance of ICAO as necessary, in close coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace and with airspace users concerned.*

*Note 1.— Guidance material relating to the development, promulgation and implementation of contingency plans is contained in Attachment C.*

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*Note 2.— Contingency plans may constitute a temporary deviation from the approved regional air navigation plans; such deviations are approved, as necessary, by the President of the ICAO Council on behalf of the Council.*

2.8 States that have failed to provide any status reports are particularly urged to do so. Any status updates received during the ATM/SG/8 meeting will be reflected in the meeting report.

#### COVID-19-Related ATM Contingency Planning

2.9 During 2020 and 2021 ICAO Asia/Pacific Regional Office conducted several activities in relation to ATM contingency planning in response to the COVID-19 pandemic. These activities included ATM-specific seminars by video teleconference, and presentations and proposed recommendations to the Asia/Pacific COVID-19 Contingency and Recovery Planning Group (ACCRPG).

2.10 Presentations and other documents provided to the various seminars and meetings are available at the following locations:

1. APAC COVID-19 BCP Measures and Guidelines Information Sharing web-page:  
<https://www.icao.int/APAC/Pages/COVID-19-BCP.aspx>
2. COVID-19-Related ATM Economics Seminar web-page:  
<https://www.icao.int/APAC/Meetings/Pages/2020-COVID-19-ATM-Seminar.aspx>
3. Meeting pages for the ACCRPG/1 – 8, available on the ICAO APAC Regional Office Meetings web-page:  
<https://www.icao.int/APAC/Meetings/Pages/default.aspx>

2.11 The *APAC Regional Strategy for COVID-19-related ATM Contingency Recovery* is available on the APAC COVID-19 BCP Measures and Guidelines Information Sharing web-page. The strategy document includes a list of ANSP and ICAO Regional Office actions, a checklist of contingency operations considerations for ANSPs, a collation of relevant document references and links, and the APAC ATC and Contingency Coordination Team (CCT) points of contact list.

2.12 The meeting is particularly urged to consider the impact of re-opening of traffic to service travel bubbles or city pairs, or a more general re-opening as COVID-19 vaccination rates increase, and the need to ensure that the ATM capacity of all affected FIRs is taken into account, as described in the list of ANSP and ICAO actions in the strategy document.

2.13 Pending the outcome of global efforts to manage and recover from the COVID-19 pandemic, lessons learned will be included where relevant in an update of the Regional ATM Contingency Plan to provide further specific guidance on management of pandemic-related contingencies.

#### Afghanistan Contingency Planning

2.14 The current Kabul FIR bypass plan agreed by the Ad Hoc Afghanistan Contingency Group (AHACG), the *Inter-Regional Afghanistan Contingency Arrangements* is appended at **Attachment B**. Participants are requested to update details contained within the bypass plan, and in particular their Contingency Coordination Team (CCT) details.

East Asia and North Pacific Contingency Coordination Team

2.15 Participants are also requested to update details contained within the East Asia and North Pacific Contingency Coordination Team Points of Contact document (**Attachment C**).

Annex 11 Provisions and Contingency Coordination Teams

2.16 Annex 11 Attachment C – *Material Relating to Contingency Planning* provides guidelines supporting the Standard specified in Chapter 2, to assist in providing for the safe and orderly flow of international air traffic in the event of disruptions of air traffic services and related supporting services, and in preserving the availability of major world air routes in such circumstances. Complementing the requirement in the Standard that *contingency plans shall be developed with the assistance of ICAO as necessary*, the guidelines in Attachment C set forth the allocation of responsibility among States and ICAO for the conduct of contingency planning and the measures to be taken into consideration in developing, applying and terminating the application of such plans. The allocation of responsibility outlined in the guidelines includes, inter alia:

- a requirement for international coordination, with the assistance of ICAO as appropriate;
- contingency plans should be developed in consultation with other States and airspace users concerned and with ICAO, as appropriate, whenever the effects of the service disruption(s) are likely to affect the services in adjacent airspace;
- The responsibility for appropriate contingency action in respect of airspace over the high seas continues to rest with the State(s) normally responsible for providing the services until, and unless, that responsibility is temporarily reassigned by ICAO to (an)other State(s);

2.17 In the event of receipt of notification of ATM contingency operations the ICAO Asia/Pacific Regional Office will, where considered necessary, form a Contingency Coordination Team (CCT) to assist affected States in coordinating the activation and operation of contingency plans, and the orderly resumption of normal operations. For this reason the Regional Office maintains a list of ATC and CCT points of contact for all APAC Administrations.

CCT Communications

2.18 Recent CCT operations in the Asia/Pacific Region resulted in some enquiry on the form of communication used by ICAO for the notification of the formation of CCTs, coordinating information updates and for notification of online CCT meetings. The meeting may note that, as evidenced by the direct experience of the ICAO Regional Office in successfully forming and running multiple CCTs in recent years, they usually comprise more than 50 persons at the initial stages and their size increases rapidly. It is therefore not feasible for the ICAO Regional Office to use forms of direct one-on-one communications such as telephone calls for the purpose of forming and coordinating with the CCT.

2.19 It is also noted that email is a recognized form of communication used by business, government and international organizations, and that ‘push-email’ and later technology enabling the direction of emails to smart phones and other personal devices has been readily available for many years. ICAO therefore requests that all CCT Points of Contact ensure they provide an up-to-date email address, and that their Administration ensures their nominees for this purpose are enabled to receive and respond appropriately to official email communications out-of-hours.

### Kabul FIR Contingency Operations – August 2021 to present date

2.20 The Kabul FIR CCT has been in place since August 2021 due to the continued unavailability of en-route ATS in the FIR. Some limited ATS is available at selected aerodromes.

2.21 Regular meetings of the CCT are held by video teleconference, supplemented by bilateral meetings between Afghanistan and the ICAO APAC Regional Office. A dedicated Kabul FIR CCT web page is provided on the ICAO Asia/Pacific Regional Office website, for sharing information with the broader community of stakeholders beyond the CCT. The rate of information update has reduced due to the current stability of the situation.

2.22 Detailed information on the development of the Kabul FIR contingency situation, the formation of the Kabul FIR CCT and lessons learned may be found in the meeting records of ATM/SG/9: <https://www.icao.int/APAC/Meetings/Pages/2021-ATM-SG-9.aspx>. The meeting records, also provides key observations and lessons learned from the Yangon (Myanmar) ATM contingency operations in early 2021, in working papers from both IATA and ICAO,

2.23 Noting that ATS routes through the Kabul FIR are part of the major traffic flows between South Asia/Southeast Asia and Europe, and that the great majority of airspace users flights that would normally operate flights through the Kabul FIR have elected to deviate around it, ICAO wishes to recognize the efforts of States managing the additional traffic that continues to operate on non-normal routes through their FIRs, particularly (but not limited to) India and Pakistan, and the Middle East Region States Bahrain, Iran, Oman and Saudi Arabia.

### Other Contingency Operations and Information Sharing Coordinated by ICAO APAC Regional Office in 2022

2.24 In addition to the ongoing Afghanistan contingency operation, the following were coordinated by the ICAO APAC Regional Office since ATM/SG/9.

#### *Tonga Volcanic Eruption and Tsunami*

2.25 In accordance with usual practice, ICAO Regional Office made contact with relevant authorities to assess the need for ICAO support for ATM contingency operations and for liaison with relevant UN and other humanitarian support agencies, in response to the major eruption of the Hunga-Tonga-Hunga-Ha'apai volcano and subsequent tsunami in Tonga on 15 January 2022.

2.26 There was no need for any ICAO ATM contingency support as suitable arrangements were in place, supported by Airways New Zealand, the Air Navigation Service Provider for the Auckland Oceanic FIR, within which Tonga is situated. Following the arrival of the earliest humanitarian relief flights by the Australian and New Zealand militaries, Airways New Zealand relayed relevant information to ICAO APAC Office for on-forwarding to international humanitarian organizations.

2.27 ICAO wishes to acknowledge and thank Airways New Zealand for providing the only available coordination link.

#### *DGCA/57 Conference*

2.28 At the 57<sup>th</sup> Conference of Directors General of Civil Aviation, Asia and Pacific Regions (DGCA/57, Incheon, Republic of Korea, 04 to 08 July 2022) ICAO presented Discussion Paper (DP) 4/1, *Key APAC Air Traffic Management Challenges 2020 – 2022 – Focus on ATM Contingency Planning and Operations*.

2.29 The DP informed the conference of:

- ATM-related outcomes of the APAC Covid-19 Contingency and Recovery Planning Group (ACCRPG);
- the APAC Regional Strategy for COVID-19-Related ATM Contingency Recovery; and
- Regional ATM contingency planning and response, and lessons learned from ATM contingency operations.

2.30 DGCA/57 consequently agreed to the following Action Item:

DP/4/1	Action Item 57/19	<p>The Conference urged States/Administrations to:</p> <p>a) establish, and update where necessary, regulations requiring the development, promulgation, exercising and update of ATM contingency plans, including formal contingency arrangements with all neighboring States, and ensure that application of the regulations is examined in safety oversight activities; and</p> <p>b) report their implementation status of the performance expectations of the ICAO Asia/Pacific Regional ATM Contingency Plan to the ICAO Regional Office annually, by not later than 31 March each year.</p>
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*Taibei FIR ATM Contingency Operations*

2.31 At 0447 UTC on 03 August 2022 the ICAO Asia/Pacific Regional Office was informed of NOTAM ZBBB A2119/22, issued at 2208021503 UTC and promulgating six Danger Areas in the Taibei FIR. One of the Danger Areas was also partly within the Shanghai FIR, and another partly within the Manila (Philippines) FIR.

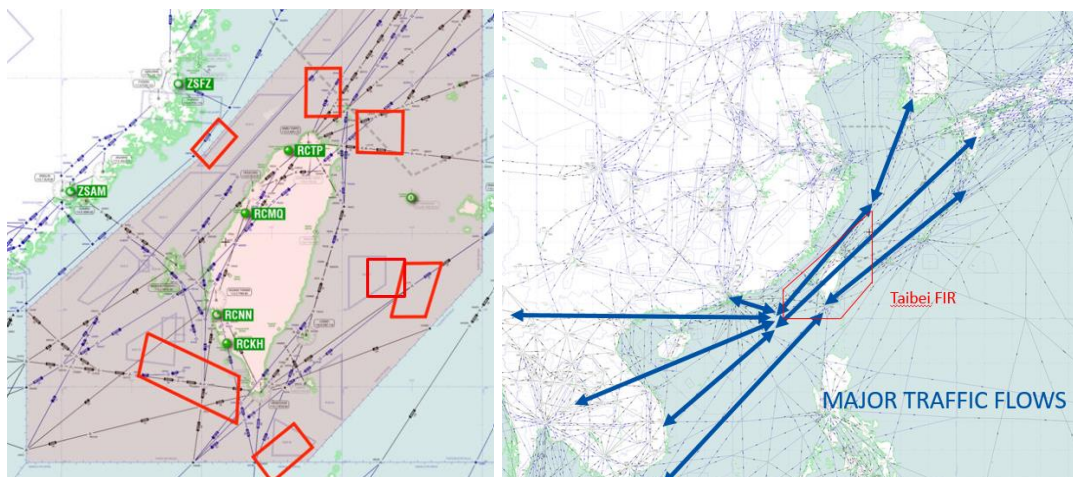
2.32 The Danger Areas were to be active for three days commencing 2208040400, and impacted all of the major traffic flows between Southeast Asia, the Taibei FIR and Northeast Asia.

2.33 Noting that the original NOTAM A2119/22 was issued for location indicator ZBBB (Beijing City), steps were taken to notify relevant authorities that NOTAMs were required for the Taibei and Manila FIRs (RCAA and RPLL, respectively). No NOTAM for the Shanghai FIR (ZSHA) was observed.

2.34 A NOTAM promulgating a seventh Danger Area in the eastern part of the Taibei FIR was subsequently published, active for four days commencing 2208040200.

2.35 **Figures 1 and 2** illustrate the seven Danger Areas and the impacted major traffic flows:





**Figure 1: Danger Areas**

**Figure 2: Major Traffic Flows**

2.36 Subsequent NOTAMs imposing large longitudinal spacing requirements and substantial ATFM delays on flights that may have flight planned to avoid the Danger areas via ATS routes to the west of the Taipei FIR were issued for the Shanghai and Hong Kong FIR. No contingency ATS routes were made available to the west of the Taipei FIR.

2.37 At 1126 UTC on 03 August 2022 ICAO Asia/Pacific formed the Taipei FIR CCT through the transmission of CCT Bulletin No. 1 by email to 57 relevant points of contact in 13 East Asian and Southeast Asian Administrations and four relevant international organizations. The final CCT Bulletin was addressed to more than 80 POCs.

2.38 One meeting of the CCT was held by video teleconference. Four CCT Bulletins were issued as the situation developed, with the last bulletin dissolving the CCT 24 hours after the expiry of the last of the related NOTAMS, when it was clear that operations had normalized. 11 Administrations and all four international organizations contacted responded appropriately to the CCT communications, and participated in the teleconference.

2.39 During the period of contingency operations, traffic operating between Northeast Asia and Southeast Asia that would normally transit the Taipei FIR operated on alternate routes to the east of the FIR. ATFM support was provided by Japan, Singapore and Thailand.

2.40 The meeting is invited to note following key points arising from this contingency situation:

1. The Standard in Annex 11 2.19 requiring that activities potentially hazardous to civil aircraft shall be coordinated with the appropriate ATS authorities;
2. Standards and Procedures in ICAO Annex 15 Aeronautical Information Services and Doc 10066 PANS – Aeronautical Information Management for NOTAM promulgation, particularly relating to the use of correct location indicators in NOTAMS;
3. The value of ATFM capability among CCT participating Administrations.

2.41 ICAO wishes to acknowledge the competent, professional engagement of all States and international organizations that participated in managing this contingency situation.

### Review of the Regional ATM Contingency Plan

2.42 The Asia/Pacific Region has experienced four major ATM contingency events in the last two to three years: the Pakistan airspace closure in Q1– Q2 2019, the Yangon FIR contingency operation in February 2021, the current and ongoing Kabul FIR contingency operation, and the Taipei FIR contingency operation. Lessons learned from the Pakistan airspace closure were included in an update of the Regional ATM Contingency Plan in 2019.

2.43 ATM/SG/9 was informed that an update of the Regional ATM Contingency Plan to include *inter alia* lessons learned from these contingency situations was planned to be conducted in 2021/2022. This task has not yet been completed. It is envisaged that an updated Regional ATM Contingency Plan will be presented for review by ATM/SG/11 in 2023.

## **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the performance expectations of the Regional ATM Contingency Plan relating to promulgation and reporting;
- b) provide *Regional ATM Contingency Plan* status reports at least once annually;
- c) (relevant States) to provide updated details for the Inter-regional Afghanistan ATM Contingency Arrangements, particularly the points of contact list (**Attachment B**);
- d) (relevant States) to update points of contact for the East Asia and North Pacific Contingency Coordination Team (**Attachment C**);
- e) comply with the Annex 11 provisions and Regional ATM Contingency Plan elements for contingency operations and coordination, and cooperate with Contingency Coordination Teams when formed; and
- f) update ATC and CCT Points of Contact (see WP/39); and

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ATM CONTINGENCY PLAN MONITORING AND REPORTING FORM

The following indicators are based on the Performance Improvement Plan of the Asia/Pacific Regional Contingency Plan, which should be read in conjunction with this form. The information provided will be used by the relevant Regional bodies to assess individual Administration and overall regional compliance with the Contingency Plan, and may be used by Administrations to internally evaluate their implementation status.

	Australia	Bangladesh	Cambodia	Hong Kong, China	Macao, China	Indonesia	Japan	Malaysia	Maldives	Mongolia	Myanmar	Nepal	New Caledonia	Pakistan	Papua New Guinea	Philippines	Republic of Korea	Singapore	Sri Lanka	Thailand	United States	Viet nam
<b>Indicate whether your Administration has:</b>																						
1. Established an ATM contingency Central Coordinating Committee, its terms of reference and procedures for activating the ATM Operational Contingency Group function.	1	1	0	0.5	1	1	0.5	0.5	0	1	1	0.5	0	1	0	0.5	1	1	0.5	1	1	1
2. Developed contingency plans for Category A, B and C contingency events, for all ATS units.	1	0.5	0.5	0.5	1	1		0	0.5	1	1	0.5	1	0.5	0.5	0.5	1	1	0.5	0.5	0.5	1
3. Developed human performance-based training and procedures for response to ATM contingency operations, for all ATS staff.	1	0	1	1	1	1	0.5	0	0	1	0.5	0.5	1	1	0.5	0.5	1	1	0.5	1	1	1
4. Implemented a program of regular desktop and inter-unit coordinated contingency exercises of all Level 1 contingency plans	1	0	0.5	1	1	1	0.5	0.5	0	1	1	0	0	1	0	0.5	1	1	0	1	1	0.5
5. Implemented process to review and analyze the outcomes of any testing, pre-activation or activation of a contingency plan, or any contingency exercise.	1	0	1	1	1	1	1	1	0	1	0.5	0.5	1	1	0	0.5	1	1	0	1	1	0.5
6. Published details of ATS contingency routes and flight level allocation schemes in AIP.	1	0	0	0.5	1	1	0.5	0	0	1	1	0	0	1	0	0.5	0.5	0.5	0	1	0.5	1
7. Made relevant sections of contingency plans available on the public internet website of the ANSP	0	1	0	0.5	0	1	0.5	0	0	1	0	0	0	1	0	0	1	1	0	1	1	1
8. Formalized Level 2 (inter-State) contingency arrangements for all relevant Level 1 contingency plans.	1	0	0.5	0.5	0.5	1	1	1	0	1	1	0.5	0	0.5	0	0.5	0	0.5	0.5	1	0.5	0.5
9. Harmonized, where practicable, contingency ATS routes and flight level allocation schemes with those of neighbouring States.	1	0.5	0.5	0.5	1	0.5	1	1	0	1	1	0.5	0	0.5	0.5	0.5	0	0.5	0.5	1	1	0.5
10. Ensured regulatory provisions relating to flight into airspace affected by volcanic ash are in accordance with the guidance provided in ICAO Doc 9974 - <i>Flight Safety and Volcanic Ash</i> .	1	0	0.5	0.5	0	1		1	0	0	0	1	0.5	0	0	0.5	1	1	0	1	1	1
11. Developed airspace and airport management policies and procedures for response to volcanic ash cloud, in accordance with the provisions of Doc 9974 and ICAO Doc 4444 - PANS-ATM 15.8.1c and Note 2.	0.5	0	0	1	0	1	1	1	0	0	0	1	0.5	0	0	0.5	1	1	0	1	1	1
12. Developed and maintained a list of relevant volcanoes as specified in the Smithsonian Institution <i>List of Volcanoes of the World for VAAC Use</i> , available at <a href="http://www.volcano.si.edu/projects/vaac-data/">http://www.volcano.si.edu/projects/vaac-data/</a>	1	0	0	1	0	1	1	1	0	0	0	0.5	0	1	1	1	1	1	0	1	1	0.5
13. Made available a series of templates for different stages of volcanic activity, to assist Meteorological Watch Office (MWO) and Aeronautical Information Service (AIS) staff in expediting the issuance of relevant MET and AIS messages.	0.5	0	0	1	0	1		1	0	0	0	0	0	1	0.5	1	1	1	0	1	1	1
14. Conducted, at least annually, multi-lateral volcanic ash cloud exercises.	1	0	0	0.5	0	1	1	1	0	0	0	0	0	0	0	0.5	1	1	0	1	1	0
15. Established a mechanism to provide regular and timely updates of information to all stakeholders during a volcanic eruption and/or ash cloud event.	1	0	0	1	0	1	1	1	0	0	0.5	0.5	0	1	0.5	1	1	1	1	1	1	1
16. Established an internal crisis management centre to support the collaborative and timely sharing of information such as volcanic eruptions that will have a significant impact on airport and/or airspace management.	1	1	0	0.5	1	1	0.5	1	0	0	0.5	0	1	1	0.5	0	1	1	0.5	0	1	1
17. Promulgated the national ATM contingency plan on the website of the Air Navigation Service Provider.	0									1												
18. Reported the status of contingency planning and contingency points-of-contact to the ICAO APAC Regional Office.	1	1	0.5	1	1	1	0	1	0	0	1	1	0	1	0	1	1	1	0.5	1	1	1
<b>Total (of 17)</b>	<b>15.0</b>	<b>5.0</b>	<b>5.0</b>	<b>12.5</b>	<b>9.5</b>	<b>16.5</b>	<b>10.0</b>	<b>12.0</b>	<b>0.5</b>	<b>10.0</b>	<b>9.0</b>	<b>7.0</b>	<b>5.0</b>	<b>12.5</b>	<b>4.5</b>	<b>10.0</b>	<b>14.5</b>	<b>15.5</b>	<b>4.5</b>	<b>15.5</b>	<b>15.5</b>	<b>13.5</b>
<b>Implementation %</b>	<b>88%</b>	<b>29%</b>	<b>29%</b>	<b>74%</b>	<b>56%</b>	<b>97%</b>	<b>59%</b>	<b>71%</b>	<b>3%</b>	<b>59%</b>	<b>53%</b>	<b>41%</b>	<b>29%</b>	<b>74%</b>	<b>26%</b>	<b>59%</b>	<b>85%</b>	<b>91%</b>	<b>26%</b>	<b>91%</b>	<b>91%</b>	<b>79%</b>

**INTERNATIONAL CIVIL AVIATION ORGANIZATION**



**INTER-REGIONAL**

**AFGHANISTAN ATM CONTINGENCY ARRANGEMENTS**

**Version 1.0  
September 2016**

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**INTER-REGIONAL AFGHANISTAN AIR TRAFFIC MANAGEMENT CONTINGENCY  
ARRANGEMENTS**

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## **FOREWORD**

This Document is for guidance only. Regulatory material relating to the aircraft operations is contained in relevant ICAO Annexes, PANS/ATM (Doc.4444), Regional Supplementary Procedures (Doc.7030), States AIPs and current NOTAMs, which should be read in conjunction with the material contained in this Document.

Guidelines for contingency measures for application in the event of disruptions of air traffic services and related supporting services were first approved by the Council on 27 June 1984 in response to Assembly Resolution A23-12, following a study by the Air Navigation Commission and consultation with States and international organizations concerned, as required by the Resolution. The guidelines were subsequently amended and amplified in the light of experience gained with the application of contingency measures in various parts of the world and in differing circumstances.

The purpose of the guidelines contained in this document is to assist in providing for the safe and orderly flow of international air traffic in the event of disruptions of air traffic services and related supporting services and in preserving the availability of major ATS routes within the Kabul Flight Information Region (FIR).

The main objective of the Inter-Regional Afghanistan ATM Contingency Arrangements is to provide a description of the inter-regional contingency measures in place to deal with a range of contingency situations.

This Contingency Arrangements have been developed by the Ad Hoc Afghanistan Contingency Group (AHACG) in accordance with instructions from the Secretary General of the International Civil Aviation Organization (ICAO) and the decision taken by the Asia Pacific Planning and Implementation Group (APANPIRG).

**RECORD OF AMENDMENTS**

<b>Amendment Number</b>	<b>Effective Date</b>	<b>Initiated by</b>	<b>Paragraph/ Reference</b>	<b>Remarks</b>
0.7	14 May 2015	AHACG/3		Initial Draft



## INTRODUCTION

The Air Navigation Services (ANS) within the Kabul Flight Information Region (FIR) were provided under the framework of the North Atlantic Treaty Organization (NATO) and United States. This structure was expected to end during the 3<sup>rd</sup> Quarter of 2015. It is currently unclear, if Afghanistan Civil Aviation Authority (ACAA) would be able to provide ANS with their own resources or contract a new body that would provide these ANS functions on their behalf.

The termination of provision of the affected Air Navigation Services should be announced by Notice to Airmen (NOTAM) 28 days before the end date of the cessation of services. If this airspace contract is not extended, all air traffic control services (Kabul Area Control Center comprising the low and high airspace structure, as well as Kabul Approach Control) and also de-confliction services between civil and military operation will terminate on that end date.

The effective transition from military to civilian control of the ANS within the Kabul FIR is critically important to support the major traffic flows between Europe and Asia through the Kabul FIR and the adjacent airspace. This situation has become even more critical due to a variety of airspace constraints and operation limitations/restrictions in the neighbouring FIRs.

Consequently, the High-Level Meeting on Afghanistan Airspace Contingency Planning in Hong Kong, China 28 November 2014 decided that the contingency aspects for the continued safe and efficient operation of aircraft between Europe and the Asia/Pacific Region should be urgently discussed between all stakeholders (States and International Organisations) and that an Inter-Regional Afghanistan ATM Contingency Arrangements should be urgently developed.

Afghanistan shall develop and promulgate a State Contingency Plan (according to ICAO Annex 11) 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. Such a contingency plan shall be developed with the assistance of ICAO as necessary, in close coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace, the airspace users concerned and the International Organizations. The contingency plan should include contingency arrangements to be implemented in the event of natural disasters, military conflicts or public health emergencies.

To this extent, the Inter-regional Afghanistan ATM Contingency Arrangements do not replace the State Contingency Plan and eventually do not relieve Afghanistan from its responsibility of developing/updating a State Contingency Plan.

The alternative routes are based mainly on the existing route network. Concerned States, in consultation with airspace users, might establish temporary routes to be able to accommodate extra traffic in a safe manner.

The ICAO Asia Pacific Regional Office will be the owner of this Document and will coordinate with ICAO HQ and Cairo and Paris Regional Offices any amendment to the Contingency Arrangements.

Each ICAO Regional Office will distribute the Contingency Arrangements to all relevant States, IATA, and other International Organizations within their regions.

This Document is available to users through the ICAO Asia/Pacific (APAC) website (<http://www.icao.int/APAC/Pages/edocs.aspx>).

In order to maintain the effectiveness of the Contingency Arrangements, Stakeholders are encouraged to provide the ICAO APAC Regional Office with their comments/suggestions and updates.

***Inter-regional Afghanistan ATM Contingency Focal Points***

The list of the Inter-regional Afghanistan ATM Contingency Focal Points is at **Table 1**. This list should be reviewed and updated, as appropriate.

**Table 1: INTER-REGIONAL AFGHANISTAN ATM Contingency Focal Points**

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## **Coordination Procedures**

### **Implementation of the contingency measures**

A Contingency Coordination Team (CCT) will be established from the following members:

- The focal points listed in Table 1; and
- Other States, Organizations, Agencies etc., when deemed necessary, as temporary members.

The main tasks of the CCT are as follows:

- monitor continuously information from all relevant sources;
- initiate action for the activation/deactivation of the Contingency Arrangements;
- arrange for the provision of relevant aeronautical information to the ICAO Regional Offices and Headquarters;
- liaise with international/regional organizations as appropriate;
- exchange up-to-date information with States directly concerned and States which are potential participants in contingency arrangements.

The notification/coordination process at **Table 2** should be used to facilitate the implementation of contingency arrangements.

In the event of adoption of contingency procedures States/Air Navigation Service Providers (ANSPs) will notify all affected agencies and operators appropriately.

**Table 2: Notification/coordination process**

<b>Airspace Avoidance</b>				
<b>Airlines</b>	<b>Airline Actions</b>	<b>IATA Actions</b>	<b>ICAO APAC Office</b>	<b>States/ ANSP</b>
Monitor global activities that have an effect on flight operations. (currently in place)	NONE	NONE	NONE	NONE
Review state activity that requires airline safety and security review (currently in place)	Notify IATA as to effected FIR' and factors under review. (security and or safety)	When more than (30%) of airlines reporting, notify ICAO APAC	Call for the Contingency Coordination Team (CCT)	NONE
Identify specific Factors and pending trigger events (currently in place)	inform IATA on review findings and possible trigger events	Inform CCT on findings and number of airlines reporting	Notify affected States/ANSP on number of airlines reviewing current activity	NONE
Event triggered: reviewing avoidance options and select avoidance scenario	Inform IATA of selected scenario and volume/initial timelines.	Inform CCT	Notify affected States/ANSP scenario and volume/timelines	Review scenario and give feedback on feasibility
48 Hours prior to activation of planned avoidance re-routes	Notify IATA	Notify CCT	Notify affected States/ANSP	Prepare NOTAMS and avoidance scenario
24 Hours prior to activation of planned avoidance re-routes	Notify IATA	Notify CCT	Notify affected States/ANSP	Publish NOTAMs

## SCENARIO A

### Degradation of Air Traffic Services

In case of degradation or potential disruption of ATS or related services within the Kabul FIR, the provisions of the Afghanistan State Contingency Plan apply. If these are not available the provisions as specified below might apply.

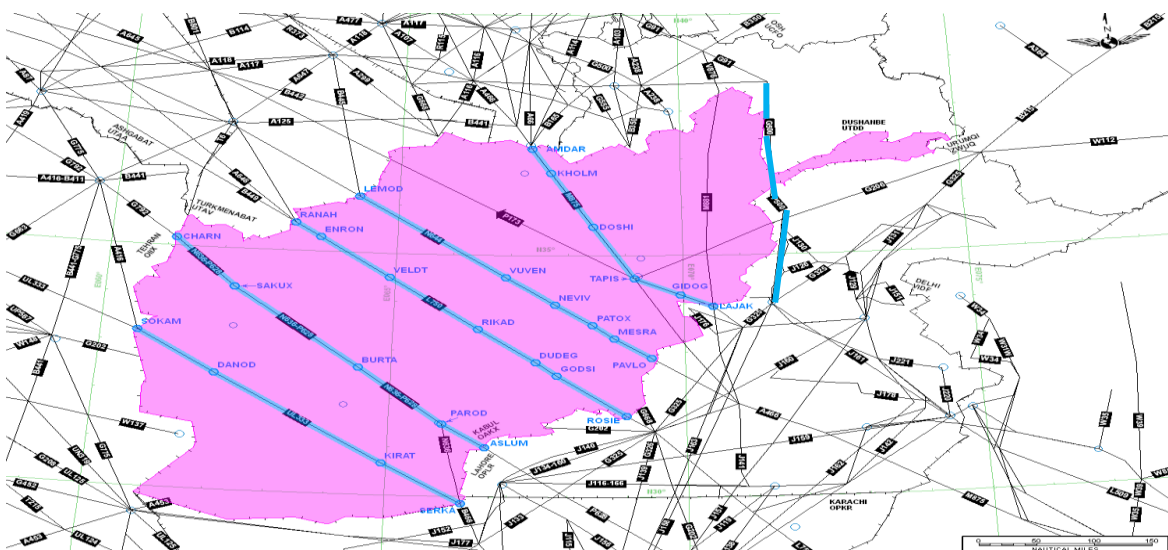
The ANSP responsible for providing ATS within Afghanistan/Kabul FIR will decide upon the level of notification necessary and take action as required to disseminate the information.

If the degradation of ANS in the Kabul FIR results in a situation whereby no ATS are provided, then the airspace classification automatically becomes by definition Class F (uncontrolled, advisory) or Class G (uncontrolled). In this case airspace users must be aware that State/military aircraft may continue their operations within the Kabul FIR.

Airspace users are responsible to make their own risk assessment to determine whether or not they would utilise the Kabul FIR.

**In the event that limited or even no ATS are available within the Kabul FIR and the State Contingency Plan is not implemented, the following contingency procedures/measures, as presented by IATA, might be considered by the concerned States:**

- The following ATS routes are available, at and above FL 310, bi-directional (refer **Figure 1**):
  - FIRUS – P500 – PADDY (12 NM ATS route portion delegated to Dushanbe ACC)
  - SOKAM UL333 SERKA
  - CHARN P628 ASLUM
  - RANAH L750 ROSIE
  - LEMOD N644 PAVLO
  - AMDAR M875 TAPIS L509 LAJAK



**Figure 1:** Kabul FIR Upper Airspace ATS Routes



- All other ATS routes will be closed
- All available tracks are laterally separated by a minimum of 50 NM to avoid altitude coordination or Flight Level Allocation requirements. Altitudes are assigned based on proper altitude for direction of flight (even Flight Levels for Westbound flights, odd Flight Levels for Eastbound flights.)
- **ATC / ATFM Coordination**
  - The ATFM function will need to inform operators and ACCs of times, route and altitudes to be met.
  - The upstream ACC adjacent to Kabul FIR will need to provide an ATC coordination estimate to the downstream (receiving) ACC to include Aircraft identification, type, Mach, origin, route, destination, estimated time at a boundary waypoint that will have been agreed, flight level. This coordination will be carried out via dedicated recorded voice line or other agreed recorded methods.
- **ATFM Procedure:**
  - BOBCAT (for westbound flights) & NMOC (for eastbound flights) provide flow metering to 15 minutes in trail per flight level per track.
  - Upstream ACCs, aircraft operators and flight crews are made aware of the Required Time of Arrival at the metering point and ensure that the times and levels are respected.
- **ATC Procedure for the ACC delivering traffic:**
  - Assigns Airspeed to aircraft based on aircraft performance as to maintain required longitudinal spacing and appropriate FL
  - Ensures that the aircraft has been cleared on the airway(s) as planned by the ATFM function
  - Ensures minimum longitudinal spacing of 15 minutes between aircraft on the same track at the same Flight Level
  - Informs the receiving ACC of inbound traffic and provides an inbound boundary waypoint estimate
  - Instructs the aircraft to contact the receiving ACC as per agreement.
- **NAV**
  - Aircraft operate along required airways using RNAV 10 or better.
- **COM**
  - The upstream ACC will instruct the aircraft to contact the receiving ACC via VHF voice radio at a point that will have been coordinated between the concerned ACCs, corresponding to the point at which the aircraft enters VHF radio coverage.
  - The aircraft will monitor 121.5 and an agreed-upon air to air frequency (123.45?).
  - The aircraft will broadcast the following message :
    - *ALL STATIONS*
    - *THIS IS [CALLSIGN] IN THE KABUL FIR*
    - *FL ...*
    - *[WESTBOUND / EASTBOUND] ON [AIRWAY]*
    - *ESTIMATING [WAYPOINT] AT [UTC TIME]*
    - *[CALLSIGN]*
    - *FL ...*

- *IN THE KABUL FIR*
- in the English language on the agreed-upon air-air VHF radio frequency at the following times:
  - 10 minutes prior to entering the Kabul FIR
  - 10 minutes prior to crossing a waypoint within the Kabul FIR
  - At not less than 20 minute intervals
  - At any other time considered necessary by the pilot
- Consideration should be given to the following:
  - Using air-ground satellite voice for supplementary or emergency air-ground communications.
  - Using CPDLC to an ATC agency that has agreed to provide a coordination service.
- **In-Flight Contingencies**
  - In case of a non-critical in-flight emergency, the aircraft would proceed as cleared until leaving the Kabul FIR.
  - In case of a critical in-flight emergency (de-pressurization, etc.), aircraft would follow ICAO emergency descent procedures and proceed at the discretion of the pilot in command.
  - In case of a medical emergency the aircraft would proceed as cleared until leaving the Kabul FIR.
  - Consideration should be given to the mandatory use of ACAS.

## **SCENARIO B**

### **Delegation of Air Traffic Services**

The AHACG/2 meeting had discussed the possibility of Air Navigation Services (ANS) delegation by Afghanistan to another State.

The delegation may provide full or partial Air Traffic Services (ATS) within the whole or part of the Kabul Flight Information Region (FIR). The delegation of responsibility for ANS (especially ATS) within the upper airspace of Afghanistan to neighbouring countries was presented as an alternative option to the circumnavigation of the Kabul FIR.

It was possible that, after suitable training, Afghan controllers could provide an ATS from the State providing delegated services, so that the ANS was no longer delegated. In this case, there would be a significant benefit in terms of the service being provided from a potentially more secure site than Kabul, with more than one ACC capable of providing services within the Kabul ACC for contingency.

## SCENARIO C

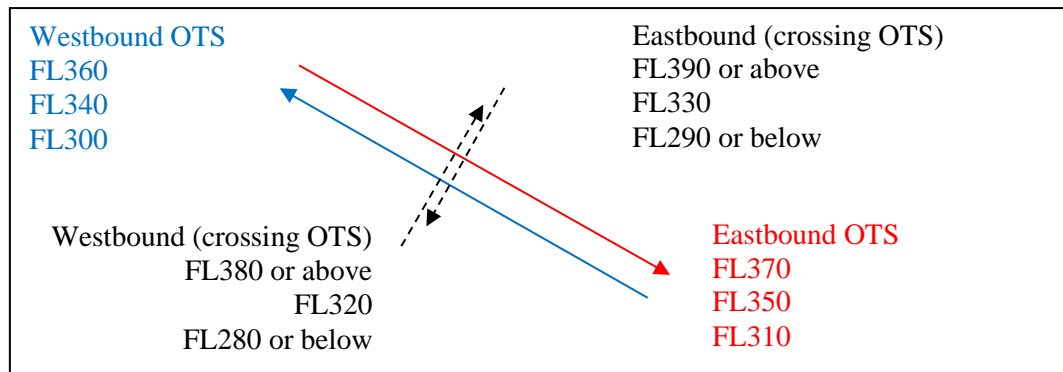
### Circumnavigation of Kabul FIR

If the degradation of ANS in the Kabul FIR results in a situation whereby no ATC services are provided, then the airspace classification automatically becomes by definition Class F (uncontrolled, advisory) or Class G (uncontrolled). In this case, with the potential presence of military aircraft operations and a potential lack of information on airspace safety/security issues, airlines may elect to avoid the Kabul FIR.

As the Tehran FIR was already at capacity at times, additional measures were needed to be available to respond to traffic that would divert south of Afghanistan on the Tehran-Karachi FIR axis, in addition to that which would divert north of the Himalayas using ATS route P500 and via China (L888, or other routes).

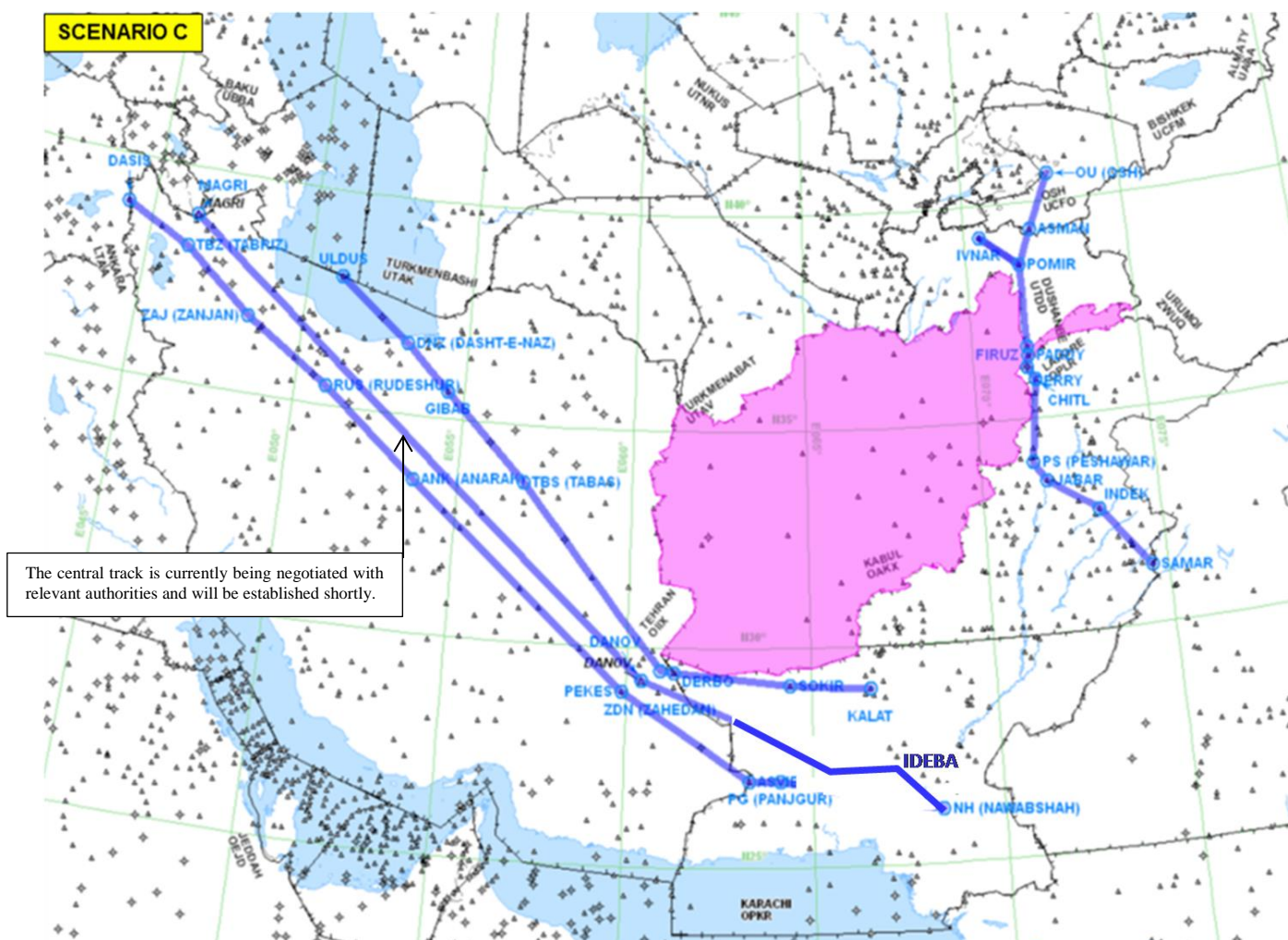
The current Organised Track Systems (OTS) utilised by Iran should be extended into the Karachi FIR as follows:

- Flight Level Allocation Scheme (FLAS) for **westbound** flight levels: FL300, FL340 and FL360;
- FLAS for **eastbound** flight levels: FL310, FL350 and FL370;
- merging procedures for traffic departing airports within the Tehran and Karachi FIRs so aircraft can join the OTS routes, preferably climbing to a level below the OTS FLAS, and then being vectored or delayed before safely merging (the sequence would need to be coordinated with the next State unless such traffic was accounted for in the traffic metering system);
- FLAS for **westbound** traffic crossing the Royal Road OTS of FL320 (or FL280 and below, or FL380 or above);
- FLAS for **eastbound** traffic crossing the Royal Road OTS of FL330 (or FL290 and below, or FL390 or above)



**Figure 2: Royal Road OTS FLAS**

The agreed OTS within the Tehran and Karachi FIR was as **Figure 3**:



**Figure 3:** Circumnavigation routes including Extended Royal Road OTS

### Other measures

During times of uncertainty when airspace closures/circumnavigation seem possible, aircraft operators should be prepared for a possible change in routing while en-route, familiarization of the alternative routes outlined in the contingency arrangements as well as what may be promulgated by a State via aeronautical publication.

ATC should be alert to respond to any request by aircraft and react commensurate with safety.

During the contingency operations, States concerned should take necessary measures to grant special over flight permissions to those flights avoiding the affected Airspace(s).

**- END -**

**Table 1: INTER-REGIONAL AFGHANISTAN ATM Contingency Focal Points**

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
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