



ICAO

International Civil Aviation Organization

The Ninth Meeting of the APANPIRG ATM Sub-Group  
(ATM/SG/9)

Video Teleconference, 01 – 05 November 2021

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

**REGIONAL ATM CONTINGENCY PLANNING AND STATUS REPORTING**

(Presented by the Secretariat)

**SUMMARY**

This paper presents information on contingency planning in the Asia/Pacific Region. The paper includes an update on the *Asia/Pacific Regional ATM Contingency Plan* with regard to State reporting of implementation of its performance expectations, a brief outline of recent ATM contingency events in the APAC Region, and a proposal to conduct an update of the Regional contingency plan.

**1. INTRODUCTION**

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

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

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

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 requirement for contingency plans that has been applicable since November 2003.

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:

2018 – Macao China, Singapore, Sri Lanka; and

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.

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*

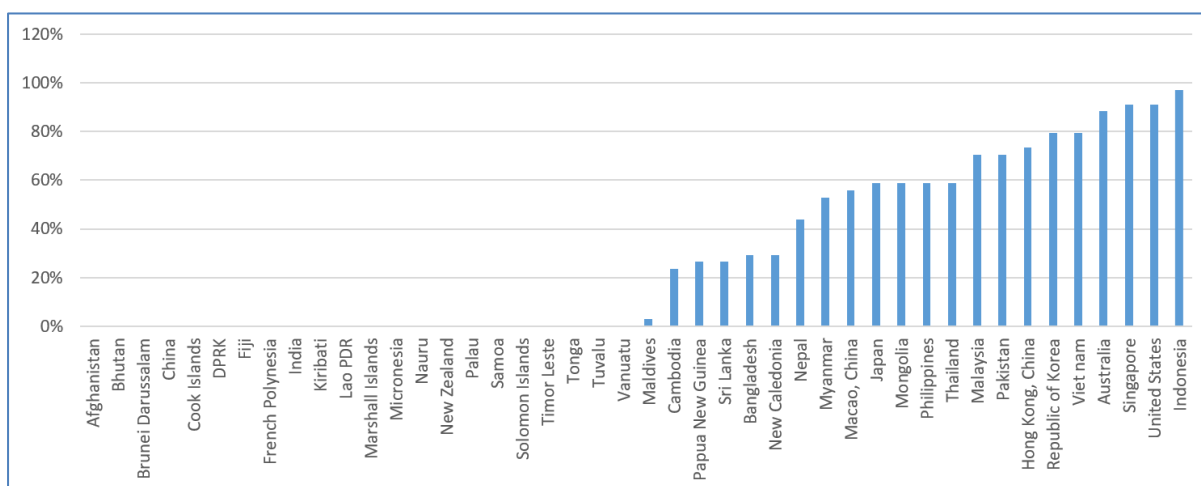
2.5 **Table 1** summarizes Asia/Pacific Region Contingency Plan implementation status, as reported to the ICAO Regional Office. The collated data provided in State reports is provided in **Attachment A**:

<b>Administration (Tier)</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	24	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	44 ↑	Incomplete
New Caledonia	29	Incomplete
New Zealand	<i>no report</i>	Did Not Report
Pakistan	71 ↓	Marginal
Palau	<i>no report</i>	Did Not Report
Papua New Guinea	26	Incomplete
Philippines	59	Incomplete
Republic of Korea	79 ↑	Marginal
Samoa	<i>no report</i>	Did Not Report

Administration (Tier)	% 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
Thailand	59 ↑	Incomplete
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 established by 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.*

*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 (ACRPG).

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 ACRPG/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 Contingency Coordination Team (CCT) details.

2.15 Afghanistan is invited to update the meeting on its current State contingency plan regarding the Kabul Flight Information Region (FIR).

East Asia and North Pacific Contingency Coordination Team

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

Yangon FIR Contingency Operations February 2021 – Lessons Learned

*Summary of Contingency Operation*

2.17 Contingency ATM operations were conducted in the Yangon (Myanmar) FIR from 08 February to 16 February 2021, due to lack of ATC staff. While some terminal area and aerodrome control services remained active, services provided by the Yangon Area Control Centre were unavailable.

2.18 The initial notification and commencement of the contingency operations, related arrangements with neighbouring FIRs, and the method of resumption of normal operations all provided lessons that should be used to improve contingency planning, execution and recovery in the APAC Region

*Annex 11 Provisions and Contingency Coordination Teams*

2.19 Annex 11 Attachment C – *Material Relating to Contingency Planning* provides guidelines supporting the standards 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);

2.20 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.

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*Regional ATM Contingency Plan Provisions*

2.21 The Asia/Pacific Regional ATM Contingency Plan provides guidance and performance expectations for ATM contingency planning, including the expectation that all APAC Administrations develop *Level 2* contingency plans to manage contingency operations involving the FIRs of two or more Administrations. The Plan also expects the formalization of Level 2 contingency arrangements between neighbouring Administrations. This may be achieved through either ATM contingency-specific agreements, or the inclusion of contingency operations procedures in ATC coordination letters of agreement or other appropriate formal agreement between Administrations.

2.22 Myanmar has developed a Level 2 contingency plan largely conforming with the expectations of the Regional ATM Contingency Plan. The February 2021 contingency operation served to highlight some areas where adjustment of the plan may be necessary, and Myanmar has consequently issued a revised version of their contingency plan.

*Summary of Yangon FIR Contingency Operations*

2.23 The Yangon FIR contingency operation may be summarized as follows, from the ICAO perspective. The purpose of this summary is not to critique the contingency operation, but to identify significant matters of experience that should be taken into account in considering any amendment to the Regional ATM Contingency Plan:

- ICAO did not receive any direct notification from Myanmar of the contingency situation. Notification was received from IATA, relaying information received from their office in India;
- Coordination of the contingency situation with neighbouring Administrations appeared to consist of mainly email notification, but this is not certain;
- After multiple unsuccessful attempts to contact Myanmar's nominated ATC and CCT points of contact, ICAO circulated by email the Yangon FIR CCT Bulletin 2021/001, notifying ATC and CCT points of contact of neighbouring States Bangladesh (Dhaka FIR), China (Kunming FIR), India (Chennai and Kolkata FIRs), Lao PDR (Vientiane FIR) and Thailand (Bangkok FIR) of the formation of the CCT, and details known at the time;
- The CCT Bulletin 2021/001 included a copy of the *Level 2 Myanmar ATS Contingency Plan Yangon FIR* version 1.1 AMDT-1, indicating that this was the most recent known version of the plan, but which was subsequently found to be out-of-date;
- The CCT Bulletin 2021/001 included a request for information from all neighbouring States. Only Bangladesh, India and Thailand responded to this request for information.
- The limited responses indicated that voice coordination of the contingency situation was made to only one neighbouring Administration (India), and that formal arrangements were in place with only some Administrations;
- Some ATC coordination between Yangon ACC and neighbouring ACCs occurred during the contingency operation, but only for a small proportion of affected flights;
- After contact was established with Myanmar, and the updated Level 2 Contingency Plan (AMDT-2) was provided, ICAO issued CCT Bulletin 2021/002, updating the known information and notifying the CCT of a teleconference to be hosted by Thailand;

- On request by ICAO, Myanmar uploaded the Level 2 Contingency Plan to the DCA Myanmar website;
- The CCT teleconference outcomes were:
  - ATC, AIS and CNS staff were not available. Only senior management were available. NOTAM could be issued, but the AFTN was not regularly monitored. Critical navigation aids were monitored, and were ok;
  - There was no SAR alerting service, but the RCC was staffed by the military;
  - Emergency diversion aerodromes were available;
  - The contingency plan had been operating reasonably well;
  - While improvements were suggested, it was agreed that stability was important in the first few days;
  - There was a need to review NOTAMS (subsequently amended accordingly) to refer directly to the contingency plan and relevant sections of AIP Myanmar;
  - Clarification of the Traffic Information Broadcast by Aircraft (TIBA) frequency and other communications expectations;
  - Contact details of ACCs and key persons, including those managing overflight approvals; and
  - Myanmar provided assurance that non-scheduled COVID-related flights (repatriation, vaccine distribution) would be accommodated;
- There was a need for additional flight levels and at least one additional contingency route;
- Some flights departing Bangkok needed to plan via a more distant contingency route to improve the likelihood of achieving more efficient (if not optimal) flight levels;
- ICAO developed specific contingency recovery guidance for Myanmar, based on the regional guidance provided in the Regional ATM Contingency Plan. This guidance was not subsequently used;
- There was no clarity around the resumption of normal operations, such as what limited services may be initially available when full, normal capability would resume;
- Communication between ICAO and Myanmar in the lead-up and transition to normal operations was unreliable;
- The management of NOTAMs related to the contingency, particularly during preparation for resumption of normal operations, resulted in incomplete, inconsistent and/or incorrect information promulgated;
- After reasonably reliable communication was established between ICAO and Myanmar, and after protracted coordination, Myanmar elected to resume normal operations by unilateral decision, without a CCT-agreed resumption time as described in the Regional ATM Contingency Plan.
- Following 24 hours of continuous normal operations, the CCT was stood down on 16 February 2021.

2.24 The five CCT bulletins issued for the Yangon FIR ATM contingency operation are provided in **Attachment D**.

*Key Issues for Lessons Learned*

2.25 The following should be considered the key issues arising from the Yangon FIR contingency operation, for consideration in a review of the Regional ATM Contingency Plan:

- sporadic contact or, in some cases, no contact at all between CCT POCs in affected FIRs and ICAO;
- uncertainty about what VHF frequency was intended to be used for TIBA;
- the need for the Level 2 contingency plan to be publicly available to all stakeholders;
- the need for formalization of Level 2 contingency arrangements in formal agreements between neighbouring Administrations;
- the need identified by neighbouring Administrations and airspace users for additional contingency flight levels, and at least one additional contingency ATS route;
- en-route holding to achieve 15 minutes' longitudinal separation before entering the Yangon FIR;
- problematic NOTAM information and handling;
- resumption of normal operations not in accordance with the guidance provided in the Asia/Pacific Regional ATM Contingency Plan.

Kabul FIR Contingency Operations – August 2021 to present date

2.26 In June 2021 ICAO Regional Office wrote to Afghanistan to seek clarification of matters related to contingency planning, recognizing that the planned withdrawal of foreign military forces from Afghanistan by the end of August may lead to potential disruption of civil aviation. No reply was received from Afghanistan.

2.27 Afghanistan had published the Kabul FIR ATM Contingency Plan, which included incorrect assumptions on the availability of Air Traffic Flow Management services provided by AEROTHAI and EUROCONTROL, and other significant inconsistencies. The Inter-Regional Afghanistan Contingency Arrangements, also known as the Kabul FIR bypass plan, was available but had not yet been formally agreed by all affected States.

2.28 16 August 2021 ICAO Regional Office was informed of major political/government instability in Afghanistan and the potential for significant security challenges that could disrupt Air Traffic Services ATS and AIS in the Kabul FIR. ICAO attempts to contact the Afghanistan CAA were unsuccessful.

2.29 ICAO consequently issued the Kabul FIR Contingency Coordination Team Bulletin 2021/001, notifying Afghanistan, States administering FIRs adjacent to the Kabul FIR, States administering FIRs that may be affected by traffic avoiding the Kabul FIR, and relevant International Organizations, of the formation of the CCT. The bulletin was issued at 0230 UTC on 16 August.

2.30 The situation in Afghanistan deteriorated rapidly, and CCT Bulletin 2021/002 was issued at 0500, notifying the CCT of information received by ICAO (from a third party) that the Kabul ACC had released the airspace to the military, and that transit aircraft should be advised to reroute. CCT and ATC Points of Contact in Afghanistan continued to disregard all ICAO attempts to contact them.

2.31 All ATS and the AIS in Afghanistan were entirely unavailable until 30 August 2021, when ICAO was informed of the appointment of a number of officials to a new aviation administration in Afghanistan. Some very limited ATS and AIS capability has been implemented since that time, and Afghanistan is now engaged in weekly conferences with ICAO, and in the (currently) weekly conferences of the Kabul FIR CCT.

2.32 Approximately 40 to 50 flights per day are currently operating in the Kabul FIR, but very few overflights. The Kabul FIR is crossed by major traffic flows from South and Southeast Asia to Europe. All of the flights that would normally cross the Kabul FIR are now avoiding it, apart from a few flights through airspace served by an existing ATC service delegation in the far northeast of the FIR. Many flights are subject to very large increases in flight time due to extensive deviations required to avoid the Kabul FIR, and other FIRs where there are pre-existing limitations in place.

2.33 12 CCT bulletins have been issued, and are available on a dedicated Afghanistan ATM Contingency 2021 web-page, publicly accessible through the ICAO Asia/Pacific Regional Office website (<https://www.icao.int/apac/Pages/default.aspx>).

#### *Key Issues for Lessons Learned*

2.34 In addition to the lessons already learned from the Pakistan and Myanmar contingency situations, and noting that many of the issues encountered were common to both the Myanmar and Afghanistan situations, the following is a not exhaustive list of lessons from the Kabul FIR contingency:

- regular full review of contingency plans, and additional reviews when known risks or threats to normal ATS provision may be reasonably foreseen;
- contingency plan exercises to test all elements, particularly when the reasonably foreseeable risks or threats are arising;
- formal agreement of all neighbouring States, and of all agencies that are ‘expected’ to provide services supporting contingency operations;
- inclusion in contingency plans of formally agreed arrangements for a neighbouring State to originate and distribute NOTAMs on behalf of the State subject to the contingency situation;
- stakeholder understanding that a contingency plan provides a valuable means of ensuring all stakeholders have input to and prior knowledge of how contingency operations may be conducted;
- stakeholder understanding that the elements of a contingency plan are not formally in effect unless published in AIP, AIP Supplement or NOTAM; and
- engagement in the CCT by all neighbouring States;
- early and frequent communication with ICAO, all neighbouring States, and the CCT.

#### Review of the Regional ATM Contingency Plan

2.35 The Asia/Pacific Region has experienced three 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, and the current and ongoing Kabul FIR contingency operation. Lessons learned from the Pakistan airspace closure were included in an update of the Regional ATM Contingency Plan in 2019.

2.36 Lessons learned from the Yangon FIR contingency operation, and the current Kabul FIR contingency operation, including but not limited to the information provided above will be considered for inclusion in another update of the Regional ATM Contingency Plan. The update of the Plan should also include routine editorial corrections, and amendments where necessary to ensure the Plan is aligned with the provisions of Annex 11.

2.37 Work to update the Plan will be conducted offline, coordinated by ICAO in consultation with relevant regional experts and airspace user representatives, and presented to the ATM Sub-Group for approval. The Regional ATM Contingency Plan Task Force will not be reconvened for this work. Meeting participants are invited to nominate experts to participate in this activity.

### 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) note the information provided on COVID-19 pandemic-related ATM contingency planning, particularly the *APAC Regional Strategy for COVID-19-related ATM Contingency Recovery*;
- d) (relevant States) to provide updated details for the Inter-regional Afghanistan ATM Contingency Arrangements, particularly the points of contact list (**Attachment B**);
- e) (relevant States) to update points of contact for the East Asia and North Pacific Contingency Coordination Team (**Attachment C**);
- f) comply with the Annex 11 provisions and Regional ATM Contingency Plan elements for contingency operations and coordination;
- g) update ATC and CCT Points of Contact (see WP/39); and
- h) nominate experts to participate in the review of the Regional ATM Contingency Plan.

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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
<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.	1.0	1.0	0.5	0.5	1.0	1.0	0.5	0.5	0.0	1.0	1.0	0.5
2. Developed contingency plans for Category A, B and C contingency events, for all ATS units.	1.0	0.5	0.5	0.5	1.0	1.0		0.0	0.5	1.0	1.0	0.5
3. Developed human performance-based training and procedures for response to ATM contingency operations, for all ATS staff.	1.0	0.0	0.5	1.0	1.0	1.0	0.5	0.0	0.0	1.0	0.5	0.5
4. Implemented a program of regular desktop and inter-unit coordinated contingency exercises of all Level 1 contingency plans	1.0	0.0	0.5	1.0	1.0	1.0	0.5	0.5	0.0	1.0	1.0	0.0
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	0.0	0.5	1.0	1.0	1.0	1.0	1.0	0.0	1.0	0.5	0.0
6. Published details of ATS contingency routes and flight level allocation schemes in AIP.	1.0	0.0	0.0	0.5	1.0	1.0	0.5	0.0	0.0	1.0	1.0	0.0
7. Made relevant sections of contingency plans available on the public internet website of the ANSP	0.0	1.0	0.0	0.5	0.0	1	0.5	0.0	0.0	1.0	0.0	0.0
8. Formalized Level 2 (inter-State) contingency arrangements for all relevant Level 1 contingency plans.	1.0	0.0	0.5	0.5	0.5	1.0	1.0	1.0	0.0	1.0	1.0	0.5
9. Harmonized, where practicable, contingency ATS routes and flight level allocation schemes with those of neighbouring States.	1.0	0.5	0.5	0.5	1.0	0.5	1.0	1.0	0.0	1.0	1.0	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	0.0	0.0	0.5	0.0	1.0		1.0	0.0	0.0	0.0	1.0
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	0.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	1.0
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	0.0	0.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	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	0.0	1.0	0.0	1.0		1.0	0.0	0.0	0.0	1.0
14. Conducted, at least annually, multi-lateral volcanic ash cloud exercises.	1.0	0.0	0.0	0.5	0.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0
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	0.0	0.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0	0.5	1.0
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.	1.0	1.0	0.0	0.5	1.0	1.0	0.5	1.0	0.0	0.0	0.5	0.0
17. Promulgated the national ATM contingency plan on the website of the Air Navigation Service Provider.	0.0									1.0		
18. Reported the status of contingency planning and contingency points-of-contact to the ICAO APAC Regional Office.	1.0	1.0	0.5	1.0	1.0	1.0	0.0	1.0	0.0	0.0	1.0	0.5
<b>Total (of 17)</b>	<b>15.0</b>	<b>5.0</b>	<b>4.0</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>7.5</b>
<b>Implementation %</b>	<b>88%</b>	<b>29%</b>	<b>24%</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>44%</b>

\*2021 Update - Higher than the previous year

\*2021 Update - Less than the previous year

\*2021 Update - No Change



**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).



## 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.

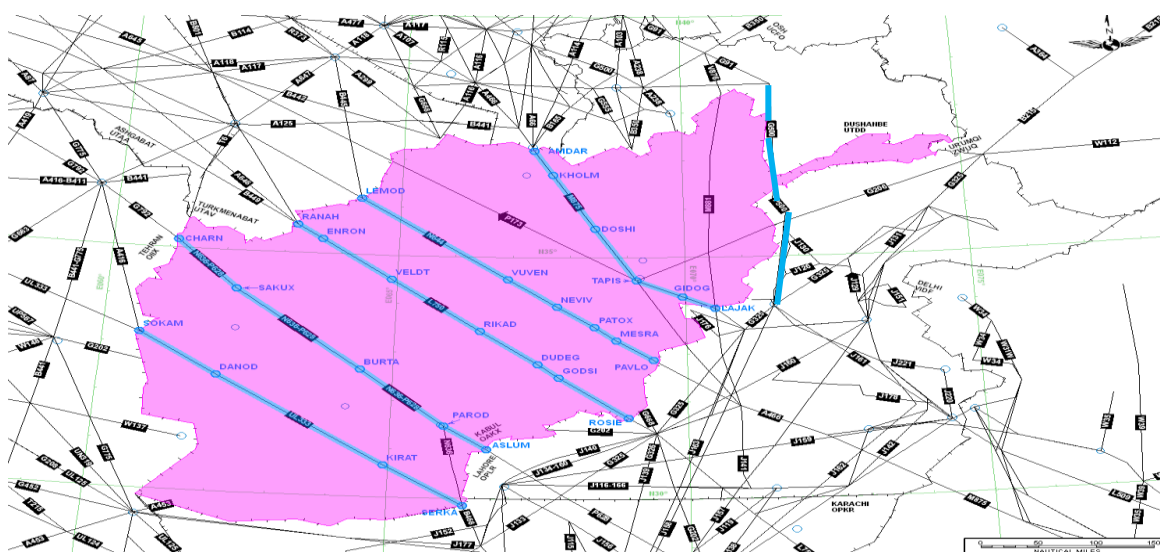
The ANSP responsible for providing ATS within Afghanistan/Kabul FIR will decide upon the level of notification necessary and take action as required to disseminate the information.

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)

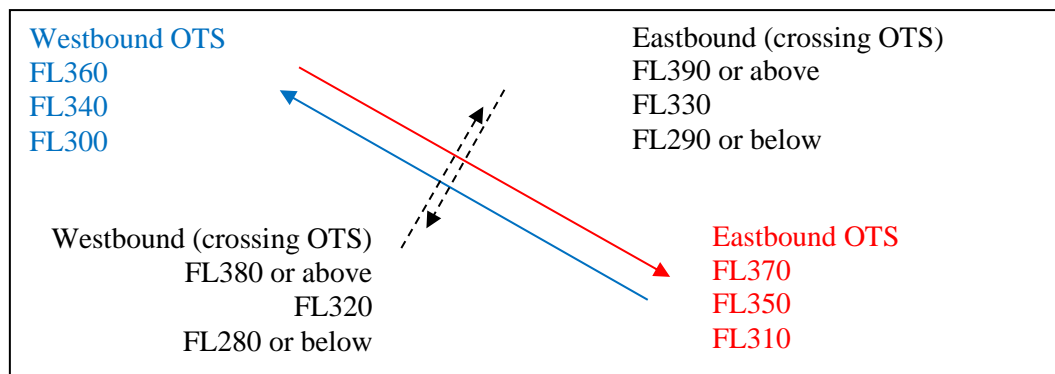
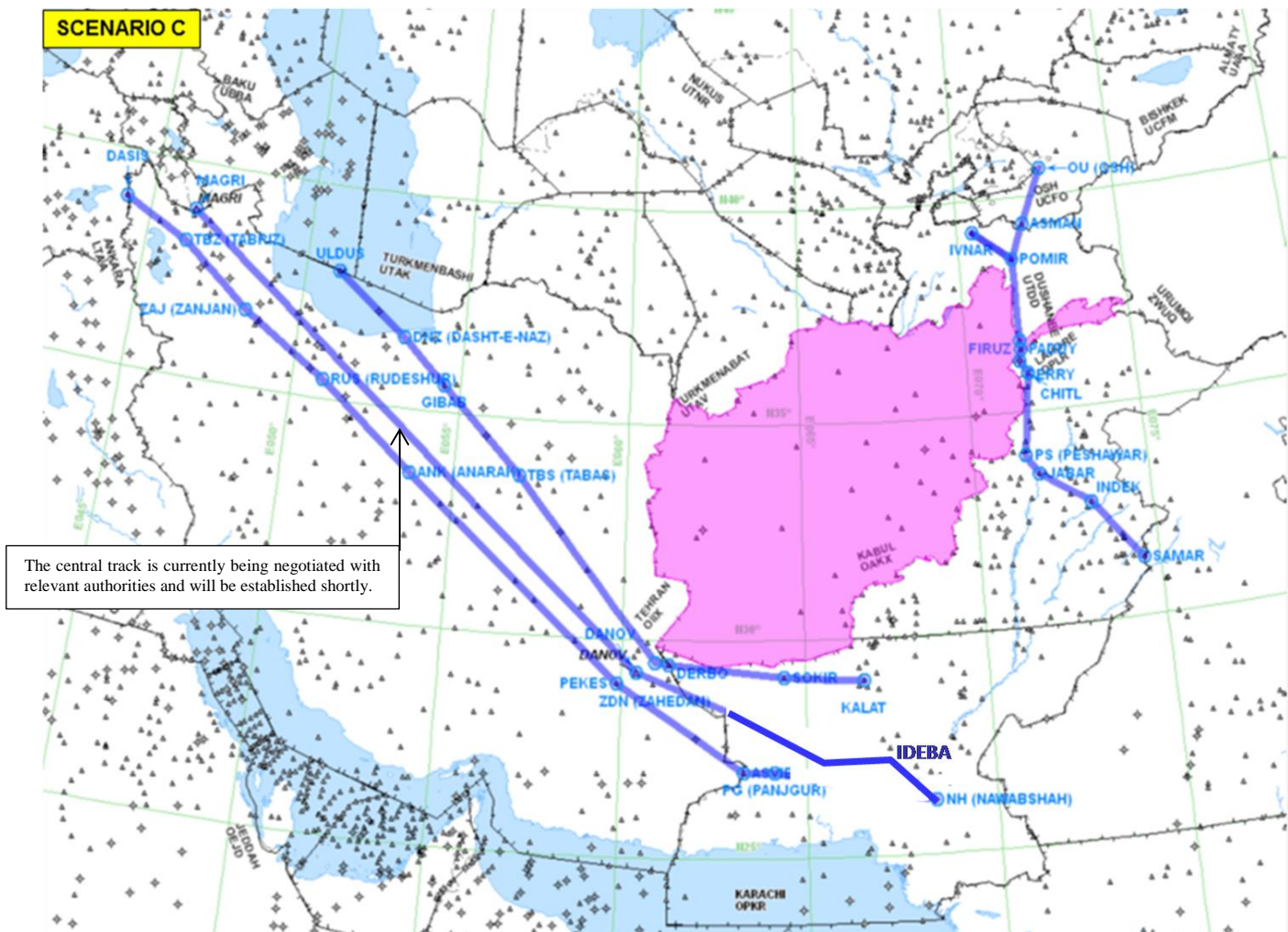


Figure 2: Royal Road OTS FLAS

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**

<b>NAMES</b>	<b>PHONE (WORK)</b>	<b>PHONE (HOME)</b>	<b>MOBILE PHONE</b>	<b>FAX</b>	<b>E-MAIL</b>	<b>OTHER CONTACT DETAILS</b>
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