



International Civil Aviation Organization

**The Sixth Meeting of the APANPIRG ATM Sub-Group
(ATM/SG/6)**

Hong Kong, China, 30 July – 03 August 2018

Agenda Item 5: 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 Status reporting strategy, to enable the tracking of State implementation of key performance expectations from the Framework.

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 Regional ATM Contingency Plan is available on the ICAO Asia/Pacific Regional Office website at:

<http://www.icao.int/APAC/Pages/edocs.aspx>

1.3 The Contingency Plan is subsidiary to the Asia/Pacific Seamless ATM Plan, which has an associated reporting regime to track State implementation of the regional performance expectations that are included in the Seamless Plan.

2. DISCUSSION

Regional ATM Contingency Planning – Status Update

2.1 The Fifth Meeting of the Air Traffic Management Sub-Group of APANPIRG (ATM/SG/5, Bangkok, Thailand, 31 July to 04 August 2017) considered several of items for inclusion or update of the Asia/Pacific Regional ATM Contingency Plan, leading to the agreement of the meeting to the following Conclusion:

Conclusion ATM/SG/5-8: Asia/Pacific Regional ATM Contingency Plan Amendment

That,

1. *the Regional ATM Contingency Plan be amended to include the information and performance objectives in **Appendix F to the Report**;*

2. *the Regional ATM Contingency Plan Monitoring and Reporting Form provided **Appendix G to the Report** be included in the Regional Framework for Collaborative ATFM as an Appendix and be made available on the ICAO Asia/Pacific website; and*
3. *Asia/Pacific Administrations are urged to report their ATM Contingency Plan implementation status at least once annually, by no later than 31 May each year.*

2.2 The Regional ATM Contingency Plan Monitoring and Reporting Form is available is available on the ICAO Asia/Pacific Regional Office e-Documents web-page at <https://www.icao.int/APAC/Pages/edocs.aspx>, in MS Excel format for ease of use by Asia/Pacific Administrations and the Regional Office.

2.3 The Form provides for Asia/Pacific Administrations to indicate, for each of the performance expectations of the Regional ATM Contingency Plan, either implementation, partial implementation, or not implemented. Only two Administrations have provided such a report.

2.4 The meeting is invited to note that it is not necessary to provide a copy of State Level 1 Contingency Plans and Level 2 Contingency Plans/Arrangements to the Regional Office, unless specifically requested. The Contingency Plan Monitoring and Reporting Form provides the necessary information to permit ATM/SG and APANPIRG to monitor Regional ATM Contingency Planning Status.

2.5 The meeting is also reminded of the provisions of Annex 11 – *Air Traffic Services* relating to ATM Contingency Planning:

2.31 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.

2.31 Commencing in 2019, the ICAO Regional Office will report annually the receipt, or non-receipt, of completed Contingency Plan Monitoring and Reporting Forms, for consideration for addition to the APANPIRG ANS Deficiencies List.

Contingency Plans for Volcanic Ash Clouds

2.32 Several ATM-related ICAO Asia/Pacific regional meetings in the Asia/Pacific Region have discussed need for reporting implementation of contingency plan elements for volcanic ash cloud where there were no active volcanoes within the State's airspace. ICAO reminded the meeting that volcanic ash cloud events had in recent years severely affected such States, as the volcanic ash cloud could move over large distances before dissipating. Clear examples include:

- The 2011 eruption of the Puyehue-Cordón Caulle (Chile) volcano, which disrupted air navigation in inter-alia the Melbourne, Brisbane, Auckland Oceanic and New Zealand FIRs;

- the 2010 eruptions of the Eyjafjallajökull volcano (Iceland) which disrupted air navigation in the airspace of many European States that do not have volcanoes within their FIRs; and
- the 1991 eruption of Mount Pinatubo (Philippines) which resulted in volcanic ash falls as far distant as Singapore.

2.33 The meeting is invited to note that contingency procedures for volcanic ash cloud may also be applied for toxic chemical cloud and radioactive cloud events.

Contingency Planning – Surveillance Contingencies

2.34 In January 2018 an FIR neighbouring the Asia/Pacific Region imposed a trans-regional longitudinal separation restriction, replacing the previous radar-based separation minimum with a minimum longitudinal separation of 10 minutes, due to a planned 9-month outage of some SSR coverage. This matter was raised with the ICAO Regional Office by Thailand (which operates the BOBCAT system to regulate traffic through the Kabul FIR) and IATA.

2.35 In communications through the appropriate ICAO Regional Office, the Asia/Pacific Regional Director noted that the separation appeared excessive, and might not take into account the use of other more efficient separations that could result in no requirement for further restrictions, as the BOBCAT system was already configured for 50NM longitudinal spacing.

2.36 It was also noted that ICAO Doc 4444 – Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM) provided for 20NM longitudinal separation with VHF using either DME or GSS, which appeared to be quite useable in the circumstances, given that the non-radar area was approximately 30NM across – about 4 minutes' flight time. It was noted that the consequences of the restriction were an increase in delays on one route of 22.4% while flights avoiding the route resulted in a 6.41% decrease in demand.

2.37 Asia/Pacific States are invited to note that, where surveillance facilities such as SSR or ADS-B are planned to be removed from service for maintenance or replacement, and if appropriate temporary surveillance coverage is not available, the most efficient separation minima from PANS-ATM should be applied in order to minimize impact on airspace users, and on ATC units that will otherwise suffer greater than necessary increases in workload.

African Contingency Planning Experience

2.38 The Twenty First Meeting of the Africa-Indian Ocean Region (AFI) Planning and Implementation Regional Group (APIRG/21, Nairobi, 09-11 October 2017) reported the following experience from African States, which was also noteworthy for APAC States:

3.2.7 *The meeting noted that the AAO/SG had deliberated on the differences between the CPs required under Annex 11 to the Chicago Convention, and the aerodrome emergency plans required under Annex 14. Some States had therefore, not prioritized the development of CPs, on account that they had developed aerodrome emergency plans. The Group recalled that there were overlaps of certain requirements and events. Amongst others, there could be emergency occurrences at an aerodrome, which affect air traffic services (ATS) facilities located at the aerodrome, resulting in the unavailability ATS in the concerned FIR. Similarly, PHE issues could also overlap and affect both the aerodrome and the airspace far beyond. However, the meeting highlighted that the provisions for aerodrome emergency Plans are dealt in a separate Annex 14, with supporting guidance, and that States should fully implement the provisions. In this respect, the Group agreed on the following Conclusions:*

Conclusion AAO/SG 21/05: Implementation of Contingency Plans

That,

- a) States develop or update Contingency Plans (CPs) that include Public Health Emergencies (PHE) and Volcanic Ash (VA) provisions and publish them as soon as practical; and*
- b) ICAO provide assistance to States in the development and coordination of the CPs to enable their publication and completion of the Regional CP.*

Afghanistan Contingency Planning

2.39 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 A**, however, the States concerned should present their final planning assurances to support this plan. In addition to the bypass plan (India, Iran and Pakistan) and the Kabul FIR contingency plan (Afghanistan), Contingency Coordination Team (CCT) details should be updated as necessary. ATM/SG/6 participants are therefore requested to update details contained within the [Kabul FIR bypass] Inter-regional Afghanistan ATM Contingency Arrangements if possible.

2.40 Afghanistan is invited to update the meeting on its current air navigation capacity and civil/military cooperation status, and to update the meeting on the current status of air navigation and aerodrome facilities and services.

East Asia and North Pacific

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

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 ATM Contingency Plan status reports at least once annually, by not later than 31 May each year,
- c) note the need for all Asia/Pacific Administrations to include contingency responses to volcanic ash clouds in their ATM Contingency Plans;
- d) note that the least disruptive separation minimum available should be used in the event that the separations usually applied are withdrawn during periods of non-availability of related facilities;
- e) (Afghanistan) provide updated details on the current air navigation capacity, air navigation and aerodrome facilities and services, and civil/military cooperation status in the Kabul FIR;
- f) (relevant States) provide updated details for the Inter-regional Afghanistan ATM Contingency Arrangements; and
- g) (relevant States) update points of contact for the East Asia and North Pacific Contingency Coordination Team.

INTERNATIONAL CIVIL AVIATION ORGANIZATION



INTER-REGIONAL

AFGHANISTAN ATM CONTINGENCY ARRANGEMENTS

Version 1.0
September 2016

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontier or boundaries.

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

TABLE OF CONTENTS

TABLE OF CONTENTS.....	3
FOREWORD	4
RECORD OF AMENDMENTS	5
Table 1.INTER-REGIONAL AFGHANISTAN ATM Contingency Focal Points.....	8
Table 2. Notification/coordination process	12
SCENARIO A.....	13
Degradation of Air Traffic Services.....	13
SCENARIO B	16
Delegation of Air Traffic Services.....	16
SCENARIO C	17
Circumnavigation of Kabul FIR	17
Other measures.....	18

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

Amendment Number	Effective Date	Initiated by	Paragraph/Reference	Remarks
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 3rd 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

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
AFGHANISTAN						
Mr. Ahmad Zaki Popal Acting Director of ATM	+93 7994 05232				khan.zaki@yahoo.com	
Mr. Ghalam Masoom Masoomi Chief of Air Traffic Control Tower	+93 786 308 480				yman_masoomi@yahoo.com	
Mr. Shah Habibi, Deputy Director			+93 703333337		habibi@acaa.gov.af	
ARMENIA						
Mr. Artur Gasparian Director General "ARMATS" CJSC	+374 10 28 15 97			+37410284142	arthur.gasparyan@armats.am	
Mr. Sergey Danielyan Chief of ATC Centre ARMATS	+37410593004			+37410282673	sergey.danielyan@armats.am	
AZERBAIJAN						
Mr. Bala Mirzayev Head of ATS, Azeraeronavigation	+99 41249716 04			+99 4124971604	BalaMirzayev@azans.az	
INDIA						
Mr. S. Swaminathan Officiating GM	+91 9891922801		+919910249918	+91 11 2461 7385	sswaminathan@aai.aeo swamy64aqua2003@yahoo.co m	
IRAN						
Mr. Ahmad Kaveh Firouz Deputy of Tehran ACC	+982144544119	+98214454411 9	+982144433100 +982144433100	+989123230447	ahmadkavehfiroz@gmail.co m	
KYRGYSTAN						
Mr. Dmitriy Chetvertak Head of ATM Department SE Kyrgyzaeronavigatsia	+996-312393130			+996-312-393093	kan_atm@kan.kg	
Mr. Ulukbek Rakhmanov Director General	+996-312393559			+996-312-393 093	kan_atm@kan.kg	
OMAN						
Mr. Saleh Al Harthy	+968-24519789				saleh@paca.gov.om	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Director of CNS						
Mr. Mubarak Al Ghelani Director of ATC	+968-24518646				m.alghelani@paca.gov.om	
Mr. Nasser Al Mazroui Chief of ACC	+968-24518646				n.almazroui@paca.gov.om	
PAKISTAN						
Mr. Muhammad Ayaz Jadoon	+92-2199242742				dops@caapakistan.com.pk	
TAJIKISTAN						
Mr. Alisher A. Shambiev, First Deputy of Director General, SUE “Tajikairnavigation”	+992 48 701-17-20			+992 37 226-81-37	a.shambiev@airnav.tj	
THAILAND						
Mr. Piyawut Tantimekabut, Engineering Manager, Network Operations ATM Centre	+66 (2) 287 8616			+66 (2) 287 8375	piyawut@gmail.com piyawut@aerothai.co.th	
TURKEY						
Mr. Ayhan Öztekin, Air Traffic Manager, DHMI HQ, Ankara	+90 312 2042290			+903122220976	Ayhan.Oztekin@dhmi.gov.tr	
Mr. Sıtkı Kağan Ertas, Air Navigation Department General Directorate of State Airports Authority	+90 312 2042592			+903122220976	Kagan.Ertas@dhmi.gov.tr	
TURKMENISTAN						
Mr. Batyr Chikayev, Chief of Ashgabat ACC, "Turkmenhowayollary", State civil aviation department	+ 99312233880			+ 99312230199	batyr.chikaev@mail.ru	
USA						
Mr. Mark Reeves	+65 6476-9320	+65 6235-2254	+65 8282-3072	+65 6476-9458	Mark.Reeves@faa.gov	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
EUROCONTROL						
Mr. Tihomir Todorov	+32 2 729 31 34				Tihomir.TODOROV@eurocontrol.int	
IATA						
Mr. Dave Rollo	+65 64992251		+65 91771093		rollod@iata.org	
Mr. George Rhodes	96 26 580 4200 Ext 1215			962 (6) 593 9912	rhodesg@iata.org with copy to SFOMENA@iata.org	Jehad Faqir: faqirj@iata.org
ICAO APAC						
Mr. Leonard Wicks (RO ATM)	662 537 8189 ext 152		+66 8 49073260	+66 2 5378199	lwicks@icao.int	
ICAO EUR/NAT						
Mr. Sven Halle (RO/ATM)					shalle@icao.int	
ICAO MID						
Mr. Elie El Khoury (RO ATM/SAR)	202 267 4845 ext 104		+201025133360	202 267 4843	ekhoury@icao.int icaomid@icao.int	
ICAO Headquarters						
Mr. Chris Dalton (C/AMO)	1514 954-6711	1 514 281-0731	+1 514 9510283	1-514-954 8197	cdalton@icao.int	
Mr. Mike Boyd Associate Technical Officer	Tel: +1 514 954 8219 X 5323		+1 514 6912693		mboyd@icao.int	
NATO						
Mr. Allan Storm	+3227073658		+32472173538		Storm.allan@hq.nato.int	

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

Airspace Avoidance				
Airlines	Airline Actions	IATA Actions	ICAO APAC Office	States/ ANSP
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 effected 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 effected 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 effected states/ANSP	Prepare NOTAMS and avoidance scenario
24 Hours prior to activation of planned avoidance re-routes	Notify IATA	Notify CCT	Notify effected 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

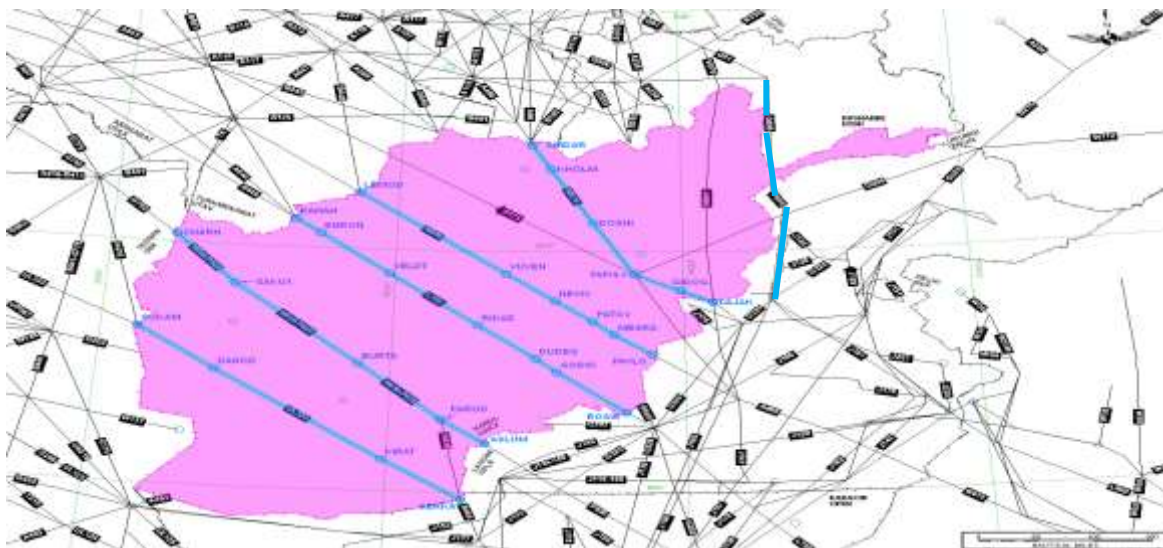


Figure 1: Kabul FIR Upper Airspace ATS Routes

- 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)

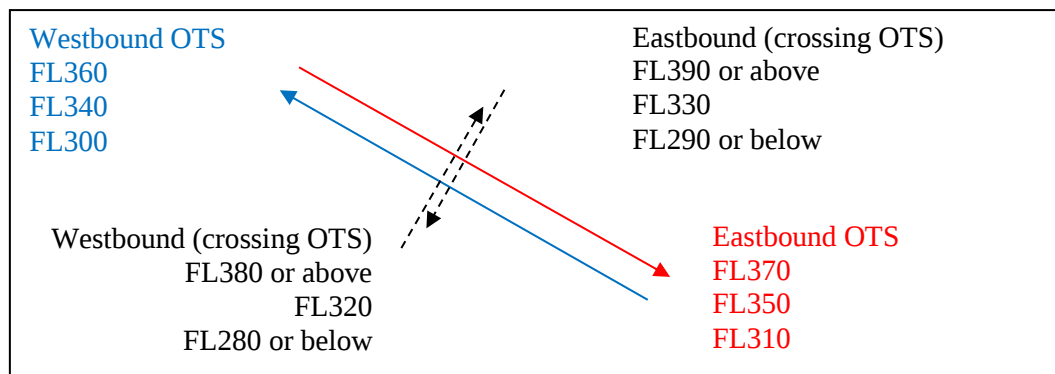


Figure 2: Royal Road OTS FLAS

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

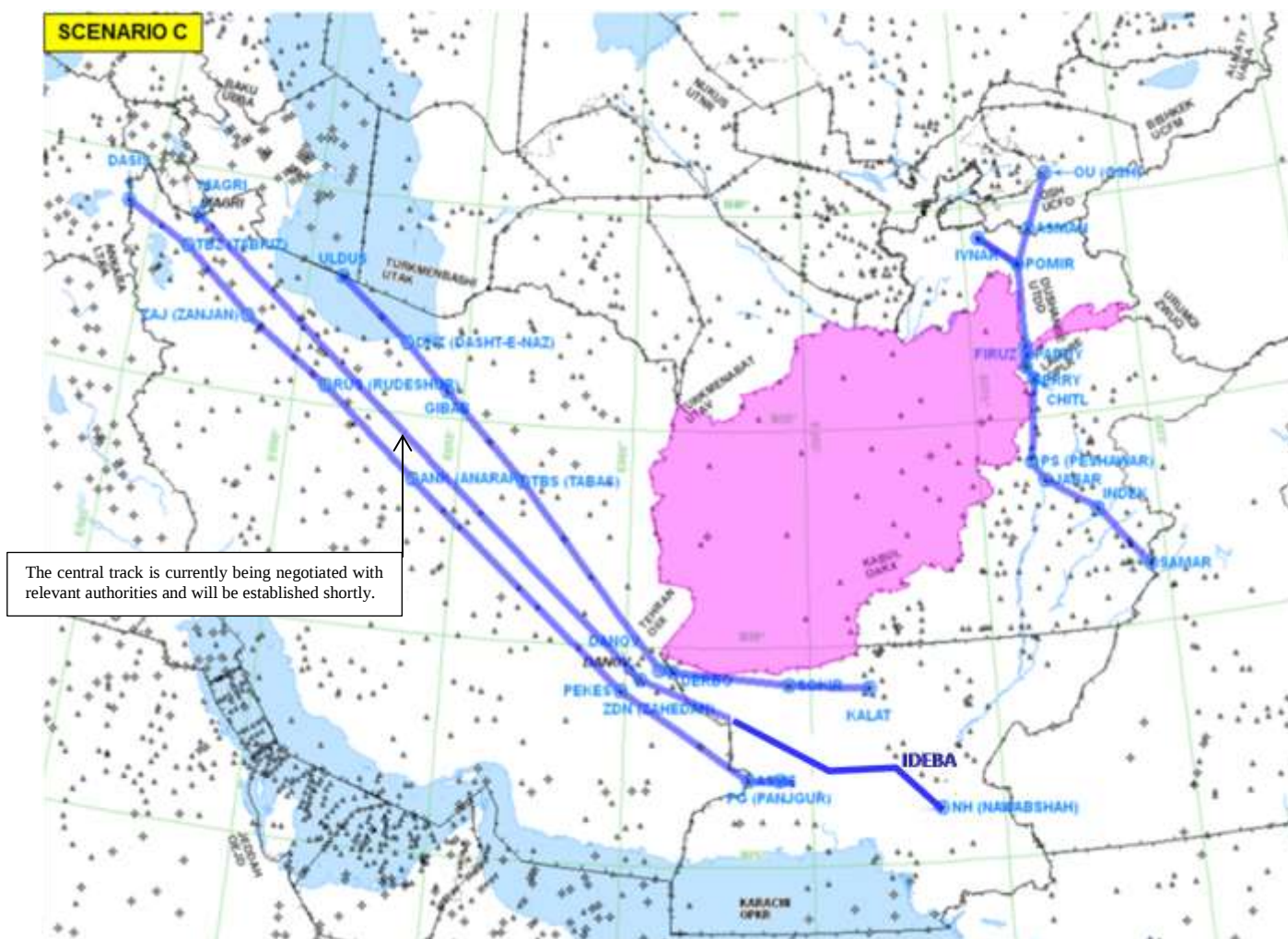


Figure 3: Circumnavigation routes including Extended Royal Road OTS

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 -

East Asia and North Pacific ATM Contingency Coordination Team Points of Contact

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER DETAILS
CHINA						
Mr.Wang Haibo, Director of Department of General Affairs CAAC	+86-10-64091504		+86-13-911403951			
Mr.Li Zhe, Deputy Director of Emergency Response Office CAAC	+86-10-64092125		+86-15-810978307		lizhe00162@163.com	
DPRK						
Mr. An Kyong Hwa, Deputy Director, Air Traffic Management Bureau (ATMB), General Administration of Civil Aviation Democratic People's Republic of Korea	+850-2-18111 Ext-8108			+850-2-3814625 Ext-4625	gaca@silibank.net.kp	
JAPAN						
Mr. Toshiya Shigenobu Special Assistant to the Director, Air Traffic Control Division, Air Navigation Services Department, Civil Aviation Bureau, MLIT	+81-3-5253-8749			+81-3-5253-1664	shigenobu-t07sa@mlit.go.jp	
Ms. Tomoko Ebisu Special Assistant to the Director, Air Traffic Control Division, Air Navigation Services Department, Civil Aviation Bureau, MLIT	+81-3-5253-8749			+81-3-5253-1664	ebisu-t07x2@mlit.go.jp	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER DETAILS
REPUBLIC OF KOREA						
Ms. Hye-in Jugn Deputy Director Air Traffic Command Center	+82-53-668-0232			+82-53-668-0275	hyen@korea.kr	
RUSSIAN FEDERATION						
Mr. Sergey Pogrebnov, Deputy Director General, State ATM Corporation HQ					Pogrebnov@matfmc.ru	
Mr. Peter Shipil Director, International Relations and Protocol, State ATM Corporation HQ					shipil@gkovd.ru	
Mr. Alexey Buevich Head of ATFM & Strategic Planning, Main ATM Center of Russia, State ATM Corporation	+7 495 6010643			+7 495 601 07 64	matcc@aviacom.ru	
Mr. Konstantin Starostin, Deputy Branch Director for ATM, Far East Air Navigation Branch (Khabarovsk), State ATM Corporation					sko@dv.gkovd.ru	
Mr. Viktor Trikopa, Head of ATM unit, North East Air Navigation Branch (Magadan)					trikopa@sv.gkovd.ru acc@sv.gkovd.ru	
Mr. Alexey Khrabrov Chief of ATM Services, PK ACC	+7 914 788 1874	+				

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER DETAILS
USA						
Mr. Michael W. Watkins	+65 6476 9462		+65 9228 2612		michael.w.watkins@faa.gov	
Mr. Greg Byus	+1 540 422 4570		+1 202 281 6513		Greg.Byus@faa.gov	
IATA						
Mr. John Moore	+65 6499 2529				moorej@iata.org	
Mr. Yoshiki Imawaka, Executive Advisor, ANA	+81 80 7977 8554			+81 3 6735 1455	y.imawaka@ana-ri.co.jp	
Mr. Aric Oh, Senior Vice President, Asiana	+822 2669 5120			+822 2669 5560	aricoh@flyasiana.com	
Mr Kim JungSik, Korean Air	+822 2656 6249		+82 10 97516551	+822 2656 8289	jungsikkim@koreanair.com	
ICAO APAC						
Mr. Shane Sumner (RO ATM)	+ 66 2 537 8189 X 159		+66 9 707 3 2424	+66 2 5378199	ssumner@icao.int	
Mr. Leonard Wicks (RO ATM)	+ 66 2 537 8189 X 152		+66 8 49073260	+66 2 5378199	lwicks@icao.int	
Mr. Raphael Guillet, Chief, Regional Sub-Office, APAC	+86 10 64557179		+86 18510853925	+86 10 64557164	rguillet@icao.int	
Mr. Liu Song, Deputy Chief, Regional Sub-Office, APAC			+86 13621377459	+86 10 64557164	slu@icao.int	
Mr. Hiroyuki Takata, Regional Sub-Office, APAC				+86 10 64557164	htakata@icao.int	(after 18 OCT)
ICAO EUR/NAT						
Mr. Sven Halle (RO/ATM)					shalle@icao.int	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER DETAILS
ICAO Headquarters						
Mr. Chris Dalton (C/AMO)	1514 954-6711	1 514 281-0731	+1 514 9510283	1-514-954 8197	cdalton@icao.int	
Mr. Mike Boyd Technical Officer	Tel: +1 514 954 8219 X 5323		+1 514 6912693		mboyd@icao.int	