



International Civil Aviation Organization

**High Level meeting on Afghanistan Airspace Contingency Planning
(HLAACP)**

Hong Kong, China, 28 November 2014

Agenda Item 2: Background, current status and outcomes from the First and Second AHACG meetings

AHACG MEETING OUTCOMES

(Presented by the Secretariat)

SUMMARY

This paper presents the report of the Second Meeting of the Ad Hoc Afghanistan Contingency Group (AHACG/2, Istanbul, Turkey, 17 to 19 September 2014), which also provides reference to the First Meeting of the Ad Hoc Afghanistan Contingency Group Meeting (AHACG/1, Kuala Lumpur, 11-12 September 2014).

1. INTRODUCTION

1.1 The Second Meeting of the Ad Hoc Afghanistan Contingency Group (AHACG/2) was held at Istanbul, Turkey from 17 to 19 September 2014. The meeting was attended by 49 participants from Afghanistan, Armenia, Azerbaijan, Bulgaria, Georgia, India, I. R. Iran, Kyrgyzstan, Malaysia, Pakistan, Russian Federation, Singapore, Tajikistan, Thailand, Turkey, USA, IATA, IFALPA, North Atlantic Treaty Organization (NATO), International Security Assistance Force (ISAF)/United States Air Force Central Command (AFCENT), and EUROCONTROL.

1.2 The High Level Meeting on Afghanistan Contingency Planning was intended to provide a forum for senior decision-makers to be briefed on the progress of Afghanistan contingency planning, and to take action where appropriate to support such planning such as brief military authorities on the need for flexibility in these circumstances. Unfortunately, the lack of safety and security cases before the AHACG/2 meeting precluded a briefing on the safety and security aspects that would need to be considered prior to any go-ahead for the overall scheme. However, the High Level Meeting was expected to:

- a) establish agreed policies to facilitate the expedition of a safe, efficient and fair contingency scheme;
- b) consider the necessary financial and personnel resources required to support an agreed contingency scheme (either by AHACG or by the High Level Meeting itself), including any sharing of facilities, systems and capabilities;
- c) discuss the means of maximising civil/military cooperation in the affected area;
- d) support amended inter-State contingency arrangements where necessary, including updated ATS Letters of Agreement;
- e) discuss, if appropriate, the effect of sanctions on certain key ATM infrastructure in the affected region; and
- f) commit to the conduct of appropriate safety and security assessments, and the monitoring of any contingency scheme.

2. DISCUSSION

Meeting Report

- 2.1 The AHACG/2 Meeting Report is at **Attachment A**.
- 2.2 A PowerPoint presentation (**Attachment B**) will summarise the outcomes of the AHACG/1 and AHACG/2 meetings to the High Level Meeting on Afghanistan.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) note the information contained in this paper;
 - b) discuss the outcomes of the AHACG/1 and AHACG/2 meetings, with particular regard to the outstanding actions and next steps to be undertaken; and
 - c) discuss any relevant matters as appropriate.

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INTERNATIONAL CIVIL AVIATION ORGANIZATION



**REPORT OF THE SECOND MEETING OF THE AD HOC AFGHANISTAN
CONTINGENCY GROUP (AHACG/2)**

ISTANBUL, TURKEY, 17 – 19 NOVEMBER 2014

The views expressed in this Report should be taken as those of the
Meeting and not the Organization

Approved by the Meeting and published by the
ICAO Asia and Pacific Office, Bangkok, ICAO Europe and North Atlantic Office, Paris, and
ICAO Middle East Office, Cairo

Second Meeting of the Ad Hoc Afghanistan Contingency Group
Table of Contents

CONTENTS

INTRODUCTION.....	i
Meeting	i
Attendance	i
Officer and Secretariat.....	i
Language and Documentation.....	i
Opening of the Meeting.....	i
REPORT ON AGENDA ITEMS	1
Agenda Item 1: Adoption of Provisional Agenda	1
Agenda Item 2: Afghanistan ATS Status and Capability Building	1
Agenda Item 3: Europe- Southeast/South Asia Contingency Planning (scenarios, procedures).....	4
Agenda Item 4: Civil/Military cooperation, contingency promulgation and implementation (safety cases, security analysis, etc.)	14
Agenda Item 5: Next Steps.....	15
Agenda Item 6: Any other business.....	16
Agenda Item 7: Closing.....	16

Second Meeting of the Ad Hoc Afghanistan Contingency Group
Table of Contents

APPENDICES AND ATTACHMENTS

Attachment A:	List of Participants	A-1
Attachment B:	List of Working and Information Papers.....	B-1
Appendix A:	Milestones and Tasks.....	Appendix A-1

INTRODUCTION

Meeting

1.1 The Second Meeting of the Ad Hoc Afghanistan Contingency Group (AHACG/2) was held at Istanbul, Turkey from 17 to 19 November 2014.

Attendance

2.1 The meeting was attended by 49 participants from Afghanistan, Armenia, Azerbaijan, Bulgaria, Georgia, India, I. R. Iran, Kyrgyzstan, Malaysia, Pakistan, Russian Federation, Singapore, Tajikistan, Thailand, Turkey, USA, IATA, IFALPA, North Atlantic Treaty Organization (NATO), International Security Assistance Force (ISAF)/United States Air Force Central Command (AFCENT), and EUROCONTROL. A list of participants is provided at **Attachment A** to this Report. IFATCA sent an apology to the meeting for not attending, due to illness of their registered participant.

Officer and Secretariat

3.1 Mr. Len Wicks, Regional Officer Air Traffic Management (ATM), ICAO Asia and Pacific (APAC) Regional Office, Mr. Sven Halle, Regional Officer ATM, ICAO Europe and North Atlantic (EUR/NAT) Regional Office, and Mr. Elie El Khoury, Regional Officer ATM and Search and Rescue, ICAO Middle East (MID) Regional Office were moderators for the meeting.

Language and Documentation

4.1 The working language of the meeting was English for all documentation and this Report. A total of 12 working papers, two information papers and two presentations were considered by the meeting. The list of working and information papers is attached at **Attachment B** to this report.

Opening of the Meeting

5.1 The meeting was opened by the Mr. Ayhan Oztekin, ATC Manager of the General Directorate of State Airports Authority (DHMI), Republic of Turkey.

5.2 On behalf of the ICAO EUR/NAT Regional Director Mr. Luis Fonseca de Almeida, Mr. George Firican, Deputy Regional Director of the ICAO EUR/NAT Office welcomed participants to the European Region, and thanked the DHMI for organising the meeting facilities.

5.3 Mr. Len Wicks welcomed all the participants to the AHACG/2 meeting on behalf of Mr. Arun Mishra, Regional Director of the Asia/Pacific (APAC) Office.

5.4 Mr. Elie El Khoury conveyed greetings to the AHACG/2 participants on behalf of Mr. Mohamed R. M. Khonji, MID Office Regional Director.

REPORT ON AGENDA ITEMS

Agenda Item 1: Adoption of Provisional Agenda

1.1 The provisional agenda (WP01) was adopted by the meeting, which noted the List of Papers (IP01) and the Order of Discussion.

Agenda Item 2: Afghanistan ATS Status and Capability Building

Update on Regional Planning for Afghanistan Contingency (WP02)

2.1 ICAO presented an update of matters pertaining to regional planning for Afghanistan's Capacity and Contingency since the First Meeting of the Ad Hoc Afghanistan Contingency Group Meeting (AHACG/1, Kuala Lumpur, 11-12 September 2014).

2.2 The First Meeting of the Ad Hoc Afghanistan Contingency Group (AHACG/1) was informed that the Government of the Islamic Republic of Afghanistan (GIROA) had requested the current ANS contract with IAP Worldwide Services to be extended by three months through the Afghanistan Civil Aviation Authority (ACAA).

2.3 The AHACG/2 meeting noted that a contract extension of between six and nine months was being offered by the United States. This was intended to bridge the gap between the day the current arrangements would expire (15 December 2014) until a new arrangement could be put in place. The meeting was informed that the extension of the current contractor (iAP) was imminent in the next few days (i.e.: before 22 November 2014).

2.4 Regarding the medium and longer term, funding the extension of the current contract with the existing ANS Provider (ANSP) only delayed the decision on whether to engage a new ANSP or to temporarily delegate ANS responsibilities to another State/Provider. The AHACG/1 meeting had noted that a delegated ANSP could provide the ANS remotely, using Automatic Dependent Surveillance – Contract (ADS-C) and Controller Pilot Data Link Communications (CPDLC) or High Frequency (HF). However, Afghanistan stated during the AHACG/2 meeting that the option of delegated ANS was not currently being considered.

2.5 The following updates were provided of the potential contingency schemes being focussed on by the AHACG (refer to the AHACG/1 report for the full list of scenarios):

- **Scenario B:** *Kabul Flight Information Region (FIR) Contingency Services* – no ATC service. Upper airspace is not affected by military or security concerns, and a number of restrictions are applied (IATA reported that a number of airlines indicated to them that they would prefer to divert around the Kabul FIR if there were no ATC services);
- **Scenario C:** *Iranian Airspace Routes* – routing via Iranian airspace due to a number of 'hot spots' in Syrian, Iraq and European airspace using a high density Organized Track System (OTS) – this scenario is discussed in AHACG/2/WP05; and
- **Scenario E:** *ATS route L888 – via China* for some Southeast and East Asian traffic, routing north of the Himalayas via RNAV 10 route L888 (there had been no feedback from China since AHACG/1 on capacity and CNS capability to support an increase in operations on this alternative routing, but there was agreement at the AHACG/2 meeting to improve routing options within Tajikistan airspace, as discussed in the Tajikistan presentation under Agenda Item 3).

2.6 Thailand had updated the data analysis provided at AHACG/1 based on the December 2013 Traffic Sample Data (TSD). The vast bulk of en-route traffic used N644 and M875 (in red, **Figure 1**), which carried some 70% of aircraft. The average RNAV 10 equipage was approximately 70%, and the overall equipage on all routes was approximately 77%, while for RNP 4 the data indicated equipage of approximately 50% and 60% respectively. Regarding data link surveillance and communication, the equipage for ADS-C and CPDLC was approximately 60% and 74.3% respectively.

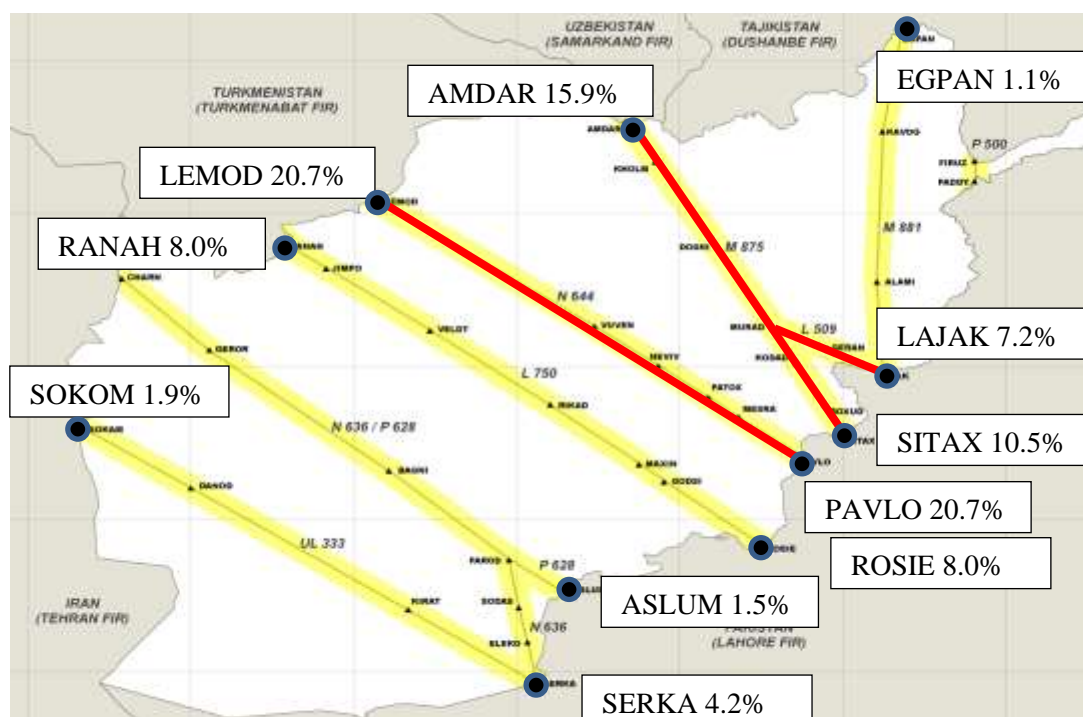


Figure 1: Traffic Loading on High Level Kabul FIR Routes

2.7 Recently, IATA had become concerned by the short-notice ad hoc changes to Iranian and Bahrain routing structures. While noting that these changes were necessary given the rapid increase in traffic, adherence to Annex 15 was preferred so that Flight Management Systems (FMS) could be updated, and the possibility of human error due to manual data insertion could be avoided. In addition, it was suggested by ICAO that constant changes may not allow the AHACG/2 to settle on a sub-regional contingency route scheme that took into account the current contingency arrangements. These measures were considered adequate by IFATCA to efficiently handle the current traffic levels. Any further enhancements would be conducted as far as practicable in accordance with Annex 15 requirements, which was confirmed by Iran.

2.8 The recent Trans-Regional Airspace and Supporting ATM Systems Steering Group meeting (TRASAS/4, Bangkok, 29-31 October 2014), discussed the progress of contingency planning, noting that it was important to note that the two issues (current problems with Iraq/Syria, etc. and Afghanistan) could not be de-linked and should be treated from a holistic, sub-regional perspective. TRASAS/4 had agreed to the following Conclusion:

TRASAS Conclusion 4/WP14_1 – Afghanistan Contingency Planning

That:

- a) *ICAO continues to provide maximum resources to support the AHACG meetings and the concomitant high level liaison required to support the development of an appropriate Afghanistan contingency scheme; and*
- b) *States and international organizations are urged to support the contingency planning effort.*

Flight Plan and Communications Issues in Afghanistan (WP03)

2.9 The ICAO MID Office presented information on flight plan distribution problems experienced with Afghanistan. A Mission by the ICAO APAC Regional Office to Kabul, Afghanistan in June 2014 also noted a number of problems concerning the flight plan distribution and aeronautical communications, including:

- the briefing office was using ageing tools;
- the AFTN line performed poorly in the considered period; and
- flight plan submission and distribution processed mixed exchanges of emails/ Aeronautical Fixed Telecommunication Network (AFTN) messages, paper copies, with a number of duplicated inputs by operators.

2.10 It was noted that a CADAS system – a solution providing messaging services for aeronautical offices, airlines and pilots – was installed but not operationally used. The system apparently complied with the ICAO Aeronautical Message Handling System (AMHS) standards and could probably contribute quickly to the improvement of flight plan submission and distribution processes. It was noted by Afghanistan that a means of effectively handling flight plans was necessary to support current ATS and any contingency situation.

2.11 An APANPIRG Deficiency between Afghanistan and Pakistan remain a problem. There was a lack of reliability in the aeronautical fixed services including data communication between Kabul and Karachi and ATS voice communication between Lahore and Kabul ACCs.

2.12 A Communications Coordination Meeting between Afghanistan, Pakistan and India was planned by ICAO for 16-17 December 2014 at New Delhi, India. Iran requested to be sent an invitation to this meeting.

2.13 Iran reported to the ICAO MID Regional Office that a Very Small Aperture (VSAT) connection between Kabul and Tehran was previously operational but was not functioning on the Afghanistan side. Within Afghanistan, internal communications were provided by two different VSAT networks: one for voice and data communications and another one for surveillance. While the VSAT network supporting the Automatic Dependent Surveillance-Broadcast Wide Area Multilateration (ADS/B WAM) had been shut down, most of the VSAT network supporting the Very High Frequency (VHF) radio coverage was operating except at Chaghcharan, Ghazni and Salerno.

2.14 The meeting noted that to have reliable voice communications, the VSAT network supporting the VHF coverage had to be secured and an HF solution could be provided as a backup. Afghanistan agreed that the installation of HF or some other communication means in the Kabul Area Control Centre (ACC) was an urgent priority to provide redundancy for both air to ground and also for ground to ground communication between ATS units.

Status of Military Transition in Afghanistan

2.15 Afghanistan/ISAF provided a joint presentation on the status of the transition from military to civil control. They noted that Kandahar, Kabul, Mazar-e-Sharif and Herat aerodromes would be managed by the framework/lead nations. The presentation noted that the ACAA was meeting with the President of Afghanistan soon, and he would decide on contract and training options. During the original discussion, a group that included ISAF and the ACAA had assessed that it would cost approximately USD 40 million a year for the ANSP contract (which included the provision of ATS). The Afghanistan Ministry of Finance had approved USD 25 million as the ACAA budget for 2015. It was not clear how the delta would be resolved.

Agenda Item 3: Europe- Southeast/South Asia Contingency Planning (scenarios, procedures)

Europe-Asia Major Traffic Flow Contingency Planning (WP04)

3.1 IATA introduced a concept to maintain Afghanistan upper airspace as open in the event that ANS services were not able to be provided, using a combination of procedures and restrictions such in-flight emergency ATS route changes to simplify the route structure, extended longitudinal spacing and traffic metering, and traffic broadcasts by aircraft (Scenario B). It was emphasised that a contingency plan was necessary for events that might be quite unrelated to the ANS contract, and thus the planning effort was needed as a matter of urgency, even before the current contract expired.

3.2 The meeting underlined that in case no ANS services are provided, the airspace would not meet the requirements for class G (uncontrolled) airspace, which require the provision of flight information and alerting services. IFALPA stressed that they would not recommend their members operate in airspace without ATS, especially as it was a conflict zone which contain potential civil/military issues from piloted and unpiloted aircraft, and ordnance. ICAO would provide assistance to Afghanistan advising on the appropriate airspace classification, if necessary.

3.3 ICAO stressed that as a sovereign State, the contingency plan for Afghanistan airspace was a matter for the GIRoA, which would be noted within the overall contingency scheme being discussed by the AHACG. The contingencies dealt mainly with actions to be taken if the Kabul FIR was not available. The meeting also noted that Afghanistan would have to accommodate arrival/departure operations from Afghanistan aerodromes. The meeting emphasised that any contingency measures must take into account the lower airspace as well as the access to and from designated international airports within the Kabul FIR.

3.4 Afghanistan advised that it was their intention to provide familiarisation training for their local controllers so that they could provide basic contingency services (flight following, communication and other assistance that did not amount to an ATS). They stated that this would be part of a plan submitted to the High Level Meeting at Hong Kong, China on 28 November by the Afghan Director General. They expect that this would enable some level of ground support for those airlines that elected to utilise the Kabul FIR. In this case, avoiding actions (Scenarios C and E) would be less likely, if the safety and security assessments indicated the operations were appropriate.

Flight Avoidance through the Kabul FIR (WP06)

3.5 IATA presented a paper that discussed the need to formulate processes to ensure regional contingency arrangements were not developed in isolation with surrounding regions.

3.6 IATA also presented information on the development of a process used to coordinate and notify airlines of irregular situations such as contingency operations. This was similar to the process reflected in the MID Regional Contingency Plan.

Europe-Asia Major Traffic Flow Contingency Planning (WP05)

3.7 The Islamic Republic of Iran (I. R. Iran) noted that the AHACG/1 meeting had discussed proposals for an effective traffic management scheme that could manage increased traffic within the Tehran FIR, should aircraft need to avoid the Kabul FIR (AHACG/1/WP04). After careful analysis, Iran had agreed with the proposals, and stated that they would implement the following Organized Track System (OTS, henceforth referred to as the 'Royal Road' OTS, after the ancient road between Persia and Anatolia) should this become necessary.

3.8

Figure 2 and the following parameters describe the OTS:

- a) a high density OTS to accommodate the main northwest-southeast flow of air traffic, with either two or three near-parallel ATS routes using –
 - i. Flight Level Allocation Scheme (FLAS) for **westbound** flight levels FL300, FL340 and FL360);
 - ii. FLAS for **eastbound** flight levels FL310, FL350 and FL370;
 - iii. advisory (not mandatory) speed controls of Mach 0.79 - 0.81 for FL300/FL310, Mach 0.81 - 0.83 for FL340/FL350, and Mach 0.83 - 0.85 for FL360/FL370;
 - iv. a traffic metering system to provide slots seven minutes apart, with a requirement for entry timing of plus or minus one minute from the allocated entry slot time (this would set an approximate 55 Nautical Mile (NM) spacing), or miles-in-trail requirements from adjacent ACCs as appropriate;
 - v. merging procedures for traffic departing Iranian airports 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);
 - vi. Mandatory carriage of ACAS (and possibly Automatic Dependent-Surveillance-Broadcast OUT (ADS-B OUT));
- b) FLAS for **westbound** traffic crossing the Royal Road OTS of FL320 (or FL280 and below, or FL380 or above);
- c) FLAS for **eastbound** traffic crossing the Royal Road OTS of FL330 (or FL290 and below, or FL390 or above);
- d) A two-way route system (the ‘Caucasus Corridor’) laterally segregated from the Royal Road OTS which is dedicated for traffic between the Caucasus/Russia and South or Southeast Asia (DERBO-ULDUS); and
- e) A two-way route system (the ‘Gulf Corridor’) laterally segregated from the Royal Road OTS which is dedicated for traffic between the Gulf and Europe (Iran has already promulgated a suitable route from BONAM on the Ankara FIR boundary to DARAX on the Emirates FIR boundary).

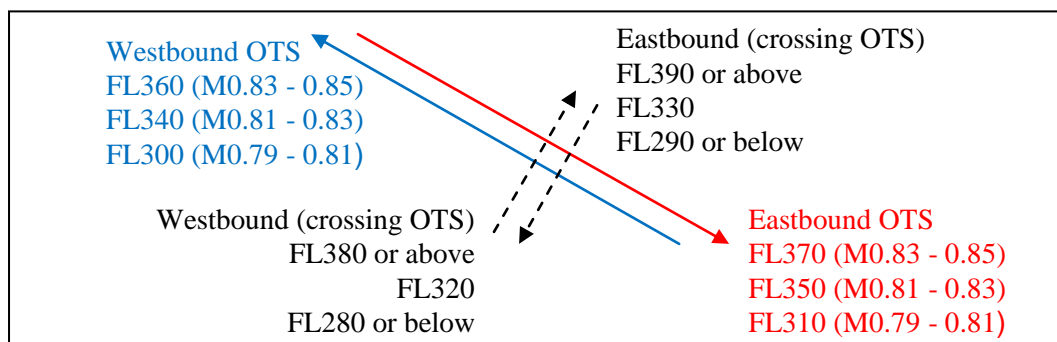


Figure 2: Iran’s Royal Road OTS FLAS

3.9 In **Figure 3**, the pink coloured routes were currently available. The blue coloured routes were Tehran's optimal desire tracks, but were not available at present. Iran was negotiating with relevant units to establish the blue routes in the future. The routing bidirectional schemes were:

- a) from DERBO (Tehran/Karachi FIR) G452 ZDN UN319 ULDUS (Tehran/Baku FIR);
- b) From KEBUD (Tehran/Karachi FIR) L124/UL124 PEKES T215 ANK G208/UL125 RADAL R794 NSR UL333 RST B121 MAGRI (Tehran/Yerevan FIR). Note: Tehran is negotiating with relevant units to modify this scheme by using most direct route from KEBUD to MAGRI;
- c) from ASVIB (Tehran/Karachi FIR) G665 to NABOX R645 YZD UT211 RUS R661 TBZ UL333 DASIS (Tehran/Ankara FIR);

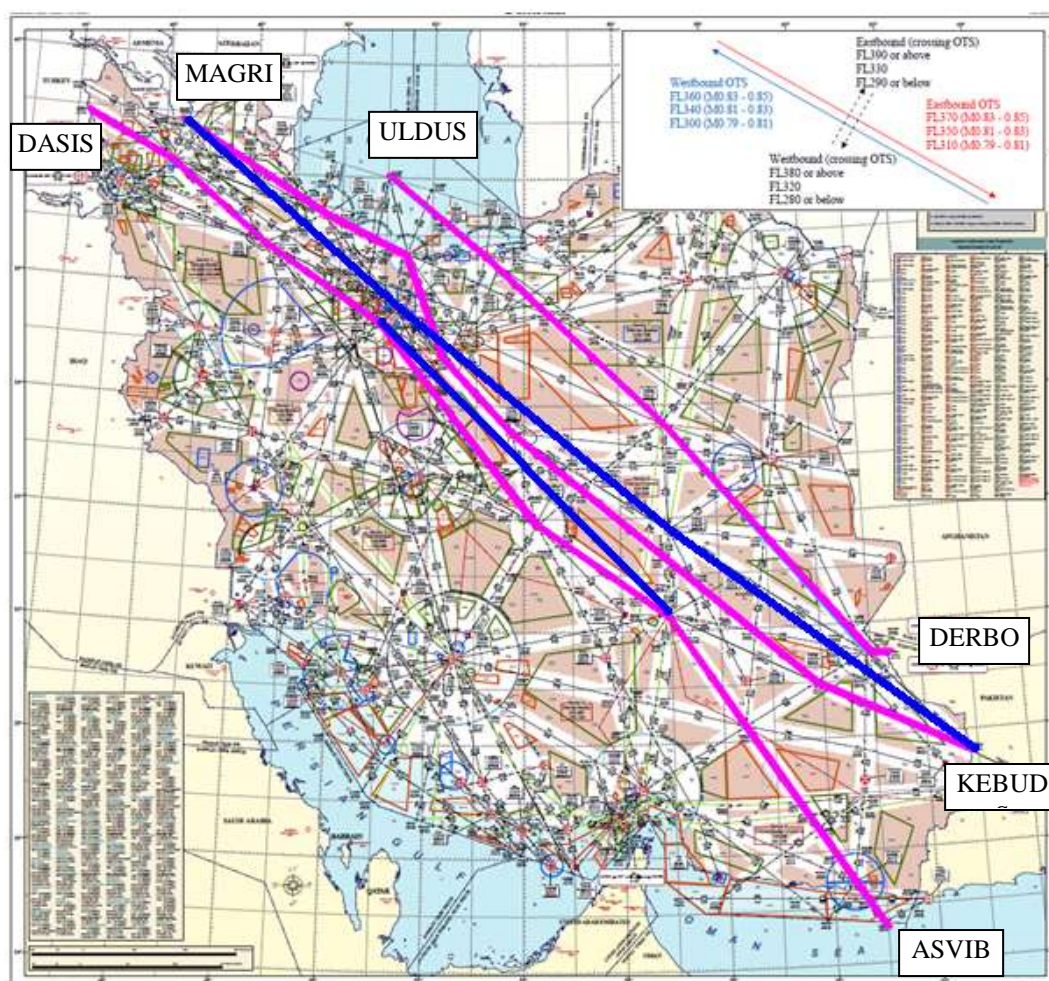


Figure 3: Tehran FIR OTS Contingency Routes

3.10 Iran clarified to the meeting that the OTS was not intended to be rigid in its application, but would apply tactical capability to ensure that aircraft would be provided with optimum levels where possible, particularly those crossing the OTS, and allowing the longitudinal target times to be as flexible as possible. On further analysis the OTS parameters may be amended after on-going consultation with airspace users and consideration of the associated safety case.

Role of Pakistan in Afghanistan Contingency Planning (WP11)

3.11 Pakistan stated that they had a key strategic position for traffic flows to/from Europe and America to Asia/Far East overflying the Kabul FIR. Pakistan noted that their airspace was covered by six Secondary Surveillance Radars (SSRs) for provision of ATS using surveillance facility which covers major ATS route structure. However, some of areas existed where surveillance data was not available due to coverage or line of sight issues.

3.12 Pakistan stated that advisory services within the Kabul FIR by Lahore/Karachi ACC would not be practicable. However, Pakistan agreed that an extension of Bay of Bengal Cooperative ATFM System (BOBCAT) timings to 24 hours as discussed during first meeting would ensure availability of optimum levels and adherence to flight planning for operators.

3.13 Pakistan recognised that the Iranian plan to operate a Royal Road OTS using ATS route L124 and G452/L125 were supported; however, these routes may not be able to accommodate all diversionary traffic from the Kabul FIR.

3.14 Pakistan suggested that ATS route L124 and G452 within the Karachi FIR could be utilized for traffic transiting through Iranian airspace via L124 and L125 within Tehran FIR. Pakistan stated that route L124 should mainly serve traffic to/from Mumbai/Karachi FIR and G452 from Delhi/Karachi FIR to Europe. Moreover, Pakistan suggested that it may be appropriate to temporary close the route segment between KEBUD to Zahedan (ZDN) to avoid convergence and streamline flows (**Figure 4**). However, other routes terminating at ZDN would remain open (i.e.: G775 may be made available to operators using G452).

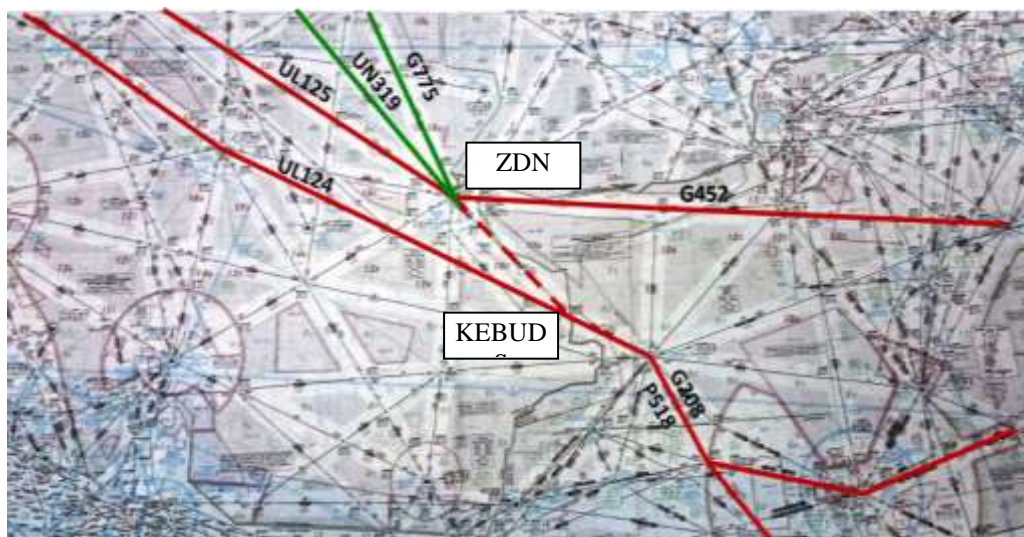


Figure 4: Pakistan's

3.15 In order to enhance the airspace capacity, Pakistan agreed to implement 50NM spacing to suitably equipped aircraft. The meeting noted that this did not depend on RNAV routes being designated.

Provision of Capacity in 2014, Preparation Measures for 2015 (WP07)

3.16 Bulgaria (ANSP BULATSA) gave a presentation on the implementation of various measures as a consequence of the developments in the Black Sea area that had taken place since April 2014. An unpredicted increase of up to 25.0% in traffic as well as a shift in flows had been experienced within the Sofia FIR.

3.17 In order to cope with the challenging situation BULATSA had implemented a variety of tactical, short-term and mid-term measures in order to cope with the special situation and avoid any kind of disruptions or delays. The meeting was also advised of enhancement activities which will include the implementation of new Voice Communications System (VCS), a major upgrade of the ATM system, the finalization of new ATS sectors, training of air traffic controllers, and additional measures.

MID Region ATM Contingency SCM Outcomes (WP08)

3.18 ICAO presented information on the recent Special Coordination Meeting on the Implementation of ATM Contingency Arrangements in the MID Region (SCM-IACA, Cairo, Egypt, 24-25 September 2014). The SCM-IACA meeting was apprised of the situation in Iraq, Libya and Syria including the actions undertaken by ICAO after the tragic incident of the MH17 on 17 July 2014.

3.19 The AHACG/2 meeting was apprised of the contingency measures that were implemented in the MID Region, in addition to the revised version of the MID Region ATM Contingency Plan, which would include the coordination/notification process tasks of the Contingency Coordination Team. Furthermore, the Plan provided examples of contingency routing when operators decided to circumnavigate one or more airspace(s) in the MID Region, due to conflict, weather, etc.

3.20 As a follow-up to the SCM-IACA meeting, IATA indicated that a meeting would be convened soon with the major air operators and the Director of the Iraqi ATM Department, to re-analyze the situation in Iraq Airspace and recommend actions as appropriate. IATA was requested to provide the ICAO MID Regional Office with the decisions undertaken, accordingly.

Analysis & ATFM Operations with BOBCAT (Flimsy 1)

3.21 Thailand provided an updated analysis of Afghanistan's December 2013 Traffic Sample Data (TSD) for Afghanistan airspace and other relevant airspace using the BOBCAT. The meeting expressed appreciation for the work, and Thailand's willingness to provide enhanced BOBCAT services if required to support contingency operations.

3.22 In the case of contingency operations affecting Afghanistan airspace, it was considered necessary to utilise BOBCAT H24 for both west and east bound aircraft operating through the Kabul FIR, regardless of traffic load to maintain safe spacing (not just workload reduction in the case of ATS support). Moreover, the meeting noted that Thailand would probably need to use a second set of servers to support such a service, which could be quickly activated if required for contingency purposes.

ATS Organization Possibilities

3.23 Tajikistan provided a presentation on the proposal and their technical capabilities to provide extended air navigation services, if delegated by Afghanistan, into the northern and north-eastern airspace of Afghanistan. Tajikistan emphasized the cross-border capability of their Wide Area Multilateration (WAM) system for surveillance coverage in the upper airspace, and the use of the Dushanbe VHF repeater as well as the possibility to use HF or satellite voice communications for communication coverage of any delegated airspace part within the Kabul FIR. The delegation of the responsibility for ANS (especially ATS) in the upper airspace of Afghanistan to neighbouring countries was presented from Tajikistan as an alternative option to the circumnavigation of the Kabul FIR, which would be quickly available.

3.24 The meeting noted Tajikistan's offer with gratitude, and the position of Afghanistan in not undertaking the option of ANS delegation at present.

EUROCONTROL Assessment

3.25 A general overview on the impact of trans-regional traffic flows in a scenario where the Kabul FIR would become partially or fully restricted as a consequence of the transition from military to civilian control of Afghanistan's airspace was presented by EUROCONTROL. The evaluation of traffic flows, especially for the flows to/from Europe and Asia compared the network wide traffic distribution of a day during September in 2013 with a day in 2014. The theoretical findings on potential daily distance and environmental savings/losses on traffic flow Europe - Asia and vice-versa, in case of unavailability of air navigation services within the Kabul FIR for around 253 flights per day (233 overflights and 20 ARR/DEP to aerodromes within Kabul FIR) were noted. The effects of the circumnavigation of Kabul FIR would not only result in significant extra flight lengths (more than 500NM for certain city pairs) but also in a shift of traffic flows to either the already congested airspace in the Iran-Pakistan interface area or the operationally constrained area north of the Himalayas.

3.26 The simulation indicated a significant increase of traffic can be expected in the Teheran FIR with a heavily loaded night period, after 21:00UTC until 02:00UTC, and peaks of more than 75 flights per hour. For Pakistan a traffic load swap between Lahore FIR and Karachi FIR was indicated, with peaks of more than 40 flights per hour. The use of alternative routes north of the Himalayas via China and Kazakhstan were affected by the high terrain, so would only be feasible for certain aircraft operators. For the EUR Region the main traffic concentration will be on the axis Ankara FIR - Sofia FIR - Bucuresti FIR (Romania), which was already loaded with traffic because of the unavailability of other FIRs.

3.27 The meeting noted that a key issue on the development of any contingency measures should be the consideration of a more holistic approach as the impacts on neighbouring States or regions must also be considered in this process. India emphasised the necessity to address the ATS Route capacity aspects (FLAS introduction, reduction of longitudinal separation standards from 10 minutes to seven minutes, etc.) and the inclusion of additional alternative routings such as P500 or P628 in the scenario developments. In this regard, several bi-lateral and multi-lateral meetings between States were convened to take advantage of the presence of the excellent representation at the AHACG/2 meeting.

Second Meeting of the Ad Hoc Afghanistan Contingency Group
Report on Agenda Items

Agenda Item 3 Main Outcomes

- 3.28 The main achievements of the meeting under Agenda Item 3 are summarised as follows.
- a) The United States confirmed that an agreement has been signed, which would ensure the extension of the current ANSP contract for six to nine months, and ISAF confirmed there was no doubt that uninterrupted services would be provided after December 2014;
 - b) The meeting provided an opportunity to agree measures that would optimize the route structures at the following interfaces:
 - Afghanistan - Pakistan;
 - Afghanistan – Iran;
 - Azerbaijan - Turkey;
 - Azerbaijan - Armenia;
 - Azerbaijan - Iran;
 - Bulgaria - Turkey;
 - Georgia - Turkey;
 - Iran - Turkey;
 - Iran - Pakistan;
 - Iran - Armenia;
 - Pakistan – India;
 - Tajikistan – Kyrgyzstan.
 - c) Bi-lateral and multi-lateral meetings between States achieved the following outcomes.
 - Iran – Armenia: a Letter of Agreement (LoA) was reviewed and signed, which included a reduction of longitudinal spacing from 30NM to 20NM, with an effective implementation date of 11 December 2014.
 - Iran – Azerbaijan: a LoA was reviewed and signed, which included a reduction of longitudinal spacing from 30NM to 20NM, and the contingency agreement between the Baku and Tehran ACCs, with an effective implementation date of 11 December 2014 (in addition, ground-ground communication problems were addressed).
 - Iran – Turkey: ground – ground communication problems between Ankara and Tehran ACC were discussed and a visit of technical experts during the period 01-03 December 2014 was arranged. A LoA was reviewed and signed, with a planned implementation date of 05 February 2015. The updated LoA included a rearrangement of flow directions for several waypoints:
 - waypoint BONAM change from westbound to bi-directional to allow eastbound departures (FL170 up to FL210) within Ankara FIR with destination Tehran FIR;
 - waypoint ALRAM change from eastbound to bi-directional to allow westbound traffic flows from Gulf Area to aerodromes in Turkey and with destination southern Europe (Greece, Spain, Italy etc.), thus reducing the workload of the North East Sector of Ankara ACC.

Second Meeting of the Ad Hoc Afghanistan Contingency Group
Report on Agenda Items

- Iran – Pakistan: a LoA was reviewed (but still needed to be signed), which had a planned implementation of 05 March 2015. The revised LoA would include the following:
 - o implementation of 50NM spacing (*note: the application of 50NM longitudinal spacing may be based on ATS surveillance – Doc 4444 minimum separation of 5NM, Global Navigation Satellite System – GNSS Doc 4444 minimum separation of 15NM, or Required Navigation Performance for RNP 10 approved aircraft – Doc 4444 minimum separation of 50NM, but is not related to the ATS route specification*);
 - o at the interface area between Iran- Pakistan-Afghanistan between PIRAN and GADER the LoA was amended to require eastbound traffic on A453 at FL260 or FL280 and to require westbound traffic on A453 at FL270 or FL290; and
 - o pending further coordination with the military authorities in Pakistan and the full implementation of ADS-B, FL410 and F430 could also be available in the future.
- Iran – Afghanistan: discussion on communication problems between Tehran ACC and Kabul ACC took place, but a further exchange was needed at the upcoming Communication Coordination meeting (New Delhi, 16-17 December 2014). Iran offered to use their ICAO TRAINAIR Institute for air traffic controller training, which would be at low cost and in the Persian language.
- Afghanistan – Pakistan: a LoA was discussed and was being considered by ISAF for review and corrections. The signature process was discussed and it was expected that the LoA would be signed soon.
- Pakistan – India: the LoA, which had not been updated for some time, was discussed and in principle agreed, but still needed to be signed, which was planned as soon as possible, but before March 2015. The updated LoA included implementation of:
 - o 50NM spacing;
 - o ATS Interfacility Data link Communications (AIDC) between Karachi-Ahmadabad ACCs (AIDC between Karachi and Delhi as well as Bombay ACC is not possible at the moment as an upgrade to AIDC Version 3.0 would be a pre-requisite); and
 - o There was agreement on a kind of ATFM scenario implementation (with level restriction scenarios) in case of the circumnavigation of the Kabul FIR to accommodate the shift of traffic flows between both States.
- Georgia – Turkey: implementation of a uni-directional ATS route structure/system was discussed (change of N644 from bi-directional ATS-Route to uni-directional eastbound ATS Route and implementation of a new uni-directional westbound ATS-Route) to enable an efficient traffic flow. A reduced ATS surveillance-based longitudinal spacing from 20NM to 10 NM after the implementation of On-Line Data Interchange (OLDI) was discussed. The next bi-lateral meeting (Tbilisi, 04 December 2014) LoA revision depended on a successful OLDI implementation and further ATS route structure studies. Expected implementation date could be during the first quarter of 2015.

Second Meeting of the Ad Hoc Afghanistan Contingency Group
Report on Agenda Items

- Armenia – Turkey: discussions to further improve the traffic flow and traffic loading in the Black Sea – Iran airspace interface area would continue at the next EUR/NAT Route Network Development (RNDSG) and Route Development Group-Eastern (RDGE) meetings. No concrete implementation dates were set, but any alleviation would be a major advantage in a contingency scenario.
 - Azerbaijan – Turkey: discussions to further improve the traffic flow and traffic loading in the Black Sea-Iran airspace interface area would continue at next RNDSG and RDGE meetings. No concrete implementation dates were set, but any alleviation would be a major advantage in a contingency scenario.
 - Turkey – Bulgaria: initial discussion took place on the implementation of two additional FIR boundary waypoints and the better alignment of traffic flows in the Black Sea area. Alternative proposals were developed and discussed, which would continue at bilateral meetings. It was envisaged that the implementation date could be the second quarter of 2015, and any alleviation on this axis would be a major advantage in a contingency scenario.
 - Tajikistan – Kyrgyzstan: implementation of the missing bi-directional ATS-Route segment between OU (Osh) and TOPAZ was discussed (RDGE20 proposal). Implementation was agreed for 05 March 2015 and the LoA would be revised accordingly. This ATS route would allow more efficient flights transiting the Kabul FIR via the 12NM segment between FIRUZ and PADDY and took into consideration the existing delegation to Dushanbe ACC through Afghanistan airspace. In a contingency scenario, this ATS route would be a much shorter (300NM) alternative to re-routings via L888 in China.
- d) Azerbaijan, India, Iran, and Pakistan offered to support Afghanistan, in particular in the training of their air traffic controllers.
- e) It was emphasised that Afghanistan had sovereignty over its Airspace in accordance with the provisions of the Chicago Convention.
- f) The meeting noted that the military aircraft operating at the secured FL300 were RVSM approved, or 2,000ft separation would be applied. IATA requested a release of FL300 for civil purposes. NATO responded that this proposal should be presented to the High Level Meeting as an outcome of the AHACG/2 meeting. Afghanistan could coordinate with ISAF for the release of FL 300.
- g) The meeting discussed the issues related to the flight plans distribution and communications with Afghanistan and agree that Iran be invited to the Communication Coordination Meeting, New Delhi, India, 16-17 December 2014.
- h) The meeting supported the position of Turkey and IATA that the issues related to the provisions of ATS at the lower airspace, as well as the access to the international airports within Kabul FIR should also be addressed in any contingency arrangements.
- i) Iran informed the meeting that they are ready to implement the OTS proposed by the AHACG/1 meeting (Scenario C) with minor changes. Pakistan advised that they would support the implementation of the OTS.
- j) Armenia advised that in 2013 they had successfully implemented a new ATM system, which provided an increase of capacity from 25 to 40 aircraft per hour.

Second Meeting of the Ad Hoc Afghanistan Contingency Group
Report on Agenda Items

- k) The meeting recommended to Afghanistan to take the necessary measures to:
- ensure the continued provisions of ANS within Kabul FIR as far as practicable;
 - coordinate with the ANSP to provide familiarisation opportunities (not necessarily on-the-job training) at Kabul ACC for their qualified controllers, in order to provide some staff capable of providing contingency services;
 - establish an ANS oversight entity to oversee the ANSP in order to ensure that the ATS are provided in an adequate and safe manner in accordance with ICAO Standards and Recommended Practices and Afghanistan's regulations;
 - ensure that the contract related to the VSAT was extended before February 2015;
 - establish an appropriate flight plan handling system'
 - install at least one HF station or other suitable means to be used as backup in case of VSAT failure; and
 - ensure the availability of adequate aeronautical meteorological and aeronautical search and rescue services.

Agenda Item 4: Civil/Military cooperation, contingency promulgation and implementation (safety cases, security analysis, etc.)

Safety/Security Analysis and Civil/Military Cooperation (WP09)

4.1 ICAO recalled that at the AHACG/1 meeting (Kuala Lumpur, Malaysia, 11-12 September 2014), it was noted that plans using current ATS routes did not need the approval of the ICAO Council, but there were already some temporary contingency routes being used in Iran. Moreover, ICAO stated that contingency plans should include an assessment of:

- a) capacity, using modelling/simulation;
- b) safety, identifying required mitigation actions;
- c) security, if applicable, due to conflict zones en-route; and
- d) timeline for implementation including approvals, Letters of Agreement and publication of aeronautical information and coordinating and publishing revised airline schedules.

4.2 The AHACG/2 meeting noted that finalization of safety and security cases should take into account such matters as, *inter alia*:

- a) Safety Case –
 - i. simulator and safety team assessment of the contingency scheme to determine:
 - potential safety issues and mitigating actions;
 - appropriateness of capacity and flow management procedures (which should include capacity measures regarding longitudinal/lateral spacing and FLAS, operational positions, etc.);
 - training needs and programme;
 - minimum CNS infrastructure availability and redundancy; and
 - transition arrangements between contingency and non-contingency airspace;
 - ii. details of how coordination and communication mechanisms between ATS units, including how Letters of Agreement will be effective;
 - iii. human performance assessments for ATM and airlines to minimize human factors issues;
 - iv. promulgation standards for the effective update of ATM and airline aeronautical databases (note should be made of the information in AHACG/1/WP07); and
 - v. consideration of irregular events, both natural and unnatural (e.g.: convective weather, depressurisation, provision of essential traffic information, significant meteorological information and search and rescue); and
- b) Security Case to ensure the safe passage of flights –
 - i. assessment of civil/military procedures;
 - ii. assessment of conflict zones; and
 - iii. security of key ANS facilities.

Network Manager Operations Portal (IP02)

4.3 EUROCONTROL presented a brief overview of the NOP (Network Operations Portal) which aimed to facilitate Network Manager Users' access to dynamic data and operational information in a consolidated way. This Portal is available to all interested parties at the non-restricted EUROCONTROL website and is considered as relevant place to present required operational data in case of possible ATS disturbance. Its main aim is to facilitate decision making for all Air Traffic Flow Management (ATFM) actors by sharing the most up-to-date view on the Network Operations situation along the ATFM cycle. The NOP layout consisted of a Header [that managed the navigation] and five main areas, which corresponded to the ATFM phases: Strategic, Pre-tactical, Tactical, Post-Operations, Resources (general reference information, not specifically related to any ATFM phase).

4.4 The Network Headline News tab announced events that have had a significant impact on the EUROCONTROL Air Traffic Flow and Capacity Management (ATFCM) Network, in the same manner that the headlines of a newspaper announced the main events of the day. These events may be foreseen or not (examples: industrial action, airspace closure, sporting event, bad weather with significant regional impact).

4.5 The meeting noted that Headline News must not be confused with operational ATFCM information messages. Events with minor or local impact on the ATFCM Network may be announced while significant events will be announced via both media. Therefore this part of NOP could be used to present required operational data in case of possible ATS disturbance within the Afghanistan airspace to all interested stakeholders. In the discussions it was suggested by IATA to also establish a link to the AEROTHAI website in order to obtain additional information, if necessary.

Agenda Item 5: Next Steps

Actions and Tasks (WP10)

5.1 ICAO presented WP10, which provided an update on the key tasks agreed at the AHACG/1 meeting that had been completed. These included the issuance of a State Letter to inform them of the AHACG/2 and High Level Meetings, and the conduct of the Eurasia Special Coordination Meeting (Beijing, 22-23 September 2014), and the Trans-Regional Airspace and Supporting ATM Systems Steering Group (TRASAS/4, Bangkok, 29-31 October 2014). **Appendix A** provides a summary timeline of milestones and events.

5.2 However, the tasks had included an important expectation that *'All involved States to submit contingency schemes and safety, capacity and security assessments to ICAO by 10 October 2014, and this did not occur.* Therefore the process of developing an overall contingency scheme to accommodate any regional problems from Afghanistan's airspace was at least three weeks behind the expected schedule, and greater effort was needed by all stakeholders.

Agenda Item 6: Any other business

6.1 There was no other business at the meeting.

Agenda Item 7: Closing

7.1 In closing, Mr. George Firican noted and welcomed the commitment and the good will of the meeting participants, and in particular the Afghanistan contribution. Nevertheless he expressed concerns related to the effectiveness of the regulatory/supervisory system in Afghanistan, and the real capability of the State to oversee (in a safe manner) the provision of air navigation services. Therefore, along with a commitment to support the States affected, he stated that ICAO would continue to monitor the completion of milestones, to oversee the preparedness of States , as well as the capability of States to develop/regulate their national contingency plans (according to Annex 11 requirements).

Appendix A: Milestones and Tasks

States	ICAO	IATA/IFATCA/ EURCONTROL	NATO/ISAF	Weekly Timeline
	Conduct of AHACG/1, Kuala Lumpur, Malaysia 11-12 SEP completed			08 SEP 2014
AIRAC promulgation cut off: 18 SEP , effective 13 NOV past	Engagement with Pakistan at high level: 22 SEP completed (Pakistan registered for AHACG/2)		AIRAC promulgation cut off: 18 SEP , effective 13 NOV past	15 SEP 2014
Iran to advise ICAO of OTS feasibility and India to assess delegated ANS option: 22 SEP AHACG/2/WP05 CLOSED	Conduct of Eurasia SCM, Beijing, China: 22-23 SEP and MID SCM: 24-25 SEP completed (AHACG/2/WP02)			22 SEP 2014
Thailand to advise BOBCAT feasibility H24 two way (Iranian or Afghan airspace) by 01 OCT FLIMSY CLOSED	State Letter to seek donors and advisory of high level contact meeting by: 01 OCT High Level Meeting State Letter sent by HQ September 2014 CLOSED	EUROCONTROL NM to consider, with Thailand and ICAO, creation of a contingency website page by: 01 OCT IP02 CLOSED	Advise ICAO of any sanctions amendment for crucial Iranian ATM facilities by: 01 OCT NATO reported this to the relevant parties and it was being considered CLOSED	29 SEP 2014
All involved States to submit contingency schemes and safety, capacity and security assessments to ICAO: 10 OCT				06 OCT 2014
AIRAC cut off: 16 OCT , effective 11 DEC			NOTAM advisory Kabul FIR uncontrolled 15-DEC NOTAM not now being issued CLOSED	13 OCT 2014
ATC training; airspace user advisories; high level briefings		EUROCONTROL to advise analysis of scheme: 24 OCT Presentation CLOSED		20 OCT 2014
Last date for Afghanistan to make contract/delegation decision: 01 NOV Contract extension will invalidate this	Conduct of TRASAS/4, Bangkok: 29-31 OCT (AHACG/2/WP02) CLOSED	IATA to brief airlines of contingency status: 31 OCT CLOSED		27 OCT 2014

date until 2015	CLOSED			
	Conduct of high-level contact group (DGs, ministers?): High Level Meeting State Letter sent by HQ September 2014 for meeting 28 November 2014	IFATCA to brief associations of scheme by: 07 NOV		3 NOV 2014
			SPIN/ACP change; PIFR Smart Cards	10 NOV 2014
	Conduct of AHACG/2, Istanbul, Turkey 17-19 NOV CLOSED			17 NOV 2014
	State Letter advising States of contingency and briefing or approval of the ICAO Council by: 28 NOV Conduct of High Level Meeting, 28 NOV, Hong Kong			24 NOV 2014
Afghanistan contract extension signed: 01 DEC			Contingency procedures start; Trigger NOTAM: 01 DEC	01 DEC 2014
State advisory and trigger NOTAM: 08 DEC			End of IAP ANSP contract by AFCENT: 14 DEC	08 DEC 2014
Contingency scheme activation if required: 15 DEC	Conduct of COM Coordination Meeting 16-17 DEC			15 DEC 2014
Post-implementation safety assessment and monitoring				22 DEC 2014
Medium-long term Afghan ANS decision; airspace authority transfers to ACAA: 01 JAN				29 DEC 2014
Turkey, Iran, Afghanistan, Pakistan and India to present their final contingency plans for disruption in the Kabul FIR, with associated safety and security cases				01 FEB 2015



ACAA ANS inspectors employed, new/extended VSAT contract signed				01 MAR 2015
All LoA to be completed as agreed (refer para 3.28 c)				01 APR 2015
	Conduct of the AHACG/3			01 MAY 2015



AFGHANISTAN ANS CONTINGENCY PLANNING

**LEN WICKS
REGIONAL OFFICER AIR TRAFFIC MANAGEMENT (ATM)
INTERNATIONAL CIVIL AVIATION ORGANIZATION**

HONG KONG, CHINA, 28 NOVEMBER 2014

Presentation Agenda

The presentation objective is to provide an overview of the progress made and challenges identified in addressing the need for Air Navigation Service (ANS) contingency capability for the Kabul Flight Information Region (FIR). Presentation Agenda:

- Background
- AHACG/1 Meeting
- AHACG/2 Meeting
- High Level Meeting
- Conclusions
- Next Steps





Background

The Afghanistan Civil Aviation Roadmap and Aviation Action Plan – which had been agreed in May 2012 – established the basis for a National Aviation System Transition Contract (NASTC) for ANS within the Kabul Flight Information Region (FIR) from 2014.

Unfortunately these documents did not accurately depict the current situation (although they could be used by the Afghanistan CAA – ACAA for long-term planning).

It was agreed that the ICAO APAC Office would conduct a Mission to Afghanistan (Kabul, 17-19 June 2014) to assess the readiness for regulatory oversight and the progress of the transition of ANS from military to civil control.



Background

The June 2014 APAC Mission found, *inter alia*:

- ACAA did not have an active State Safety Programme (SSP);
 - ...but concentrate on Critical Elements and Safety Oversight System;
- a lack of ANS contract progress (expiring 15 December 2014);
- Poor ANS capability and redundancy in critical areas, including:
 - a lack of experienced ANS inspectors, thus no ANS safety oversight;
 - no backup to Very High Frequency (VHF) and landline communications;
 - no operational Afghan en-route (area) controllers;
 - problems with civil/military cooperation;
 - deteriorating ATS surveillance capability; and
 - no ANS contingency plan.



Background

ICAO presented information from the Afghanistan Mission, including the 12 recommendations made to the Second Meeting of the APANPIRG Air Traffic Management Sub-Group (ATM/SG/2, 04-08 August 2014). The ATM/SG/2 agreed on the following Decision regarding the formation of the Ad Hoc Afghanistan Contingency Group (AHACG):

Decision ATM/SG/2-4: Ad Hoc Afghanistan Contingency Group

That, an ad hoc group is convened supported by the ICAO Asia/Pacific Office to urgently discuss contingency planning to address any contingency aspects for the continued safe and efficient operation of aircraft between Europe and the Asia/Pacific Region, consisting of IATA, IFALPA, Afghanistan, China, India, Iran, Oman, Pakistan, Singapore, the United States, Thailand and other affected parties as necessary.



Background

Other meetings that discussed the outcomes of the APAC Mission to Afghanistan were:

- APANPIRG/25 (Kuala Lumpur, 8-11 September 2014);
 - noted the ATM/SG's Decision and the inter-regional coordination;
- Second Europe -Asia Trans-regional Special Coordination Meeting (Beijing, China, 22 - 23 September 2014);
 - discussed alternative routes through Tajikistan, Central Asia;
- Fourth Trans-Regional Airspace and Supporting ATM Systems Steering Group (Bangkok, 29 – 31 October 2014);
 - ICAO should provide maximum resources and urged States/IO to attend.



AHACG/1 Meeting

AHACG/1 (Kuala Lumpur, 11-12 September 2014) key outcomes:

- Attended by 44 participants from Afghanistan, Bangladesh, China (one day only), India, Iran, Malaysia, Oman, Singapore, Thailand, United States, IATA, IFATCA and NATO.
- Afghanistan stated that their ANS transition planning was behind due to contract costs, so had asked NATO/AFCENT for an extension of the current contractor of 6-9 months;
- Options for the short term included:
 - ISAF *or* ACAA extending the existing ANS Provider (ANSP) contract;
 - Afghanistan engaging a new ANSP; and
 - Afghanistan delegating ANS responsibilities to another State.



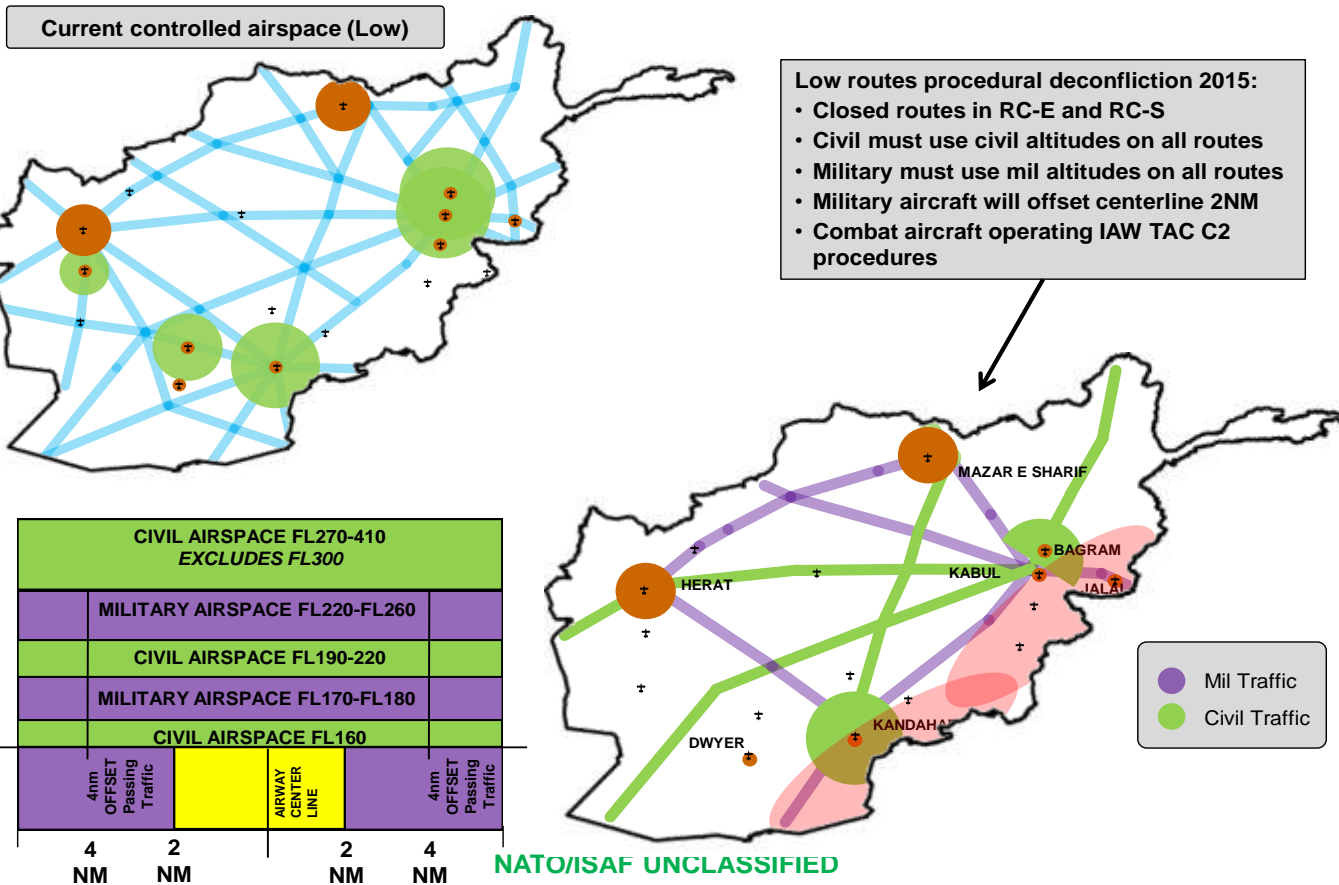
AHACG/1 Meeting

Regarding the option of delegating ANS responsibilities, this was considered by ICAO to be the best solution for the medium term (until Afghan controllers are trained) because it:

- would be a remote Area Control Centre (ACC), not necessarily subject to the same level of security issues and provided an option for redundancy (Kabul ACC has no backup);
- could return a large proportion of overflight charges to the ACAA, rather than being spent on an external contractor; and
- might be a 'local' solution that could expedite the training of Afghanistan area controllers (no delegation once trained).
 - Note: delegation of ANS does not limit the sovereignty of Afghanistan.

AHACG/1 Meeting

The military had developed a contingency plan for the Kabul FIR:





AHACG/1 Meeting

Features of the military contingency plan for the Kabul FIR:

- there were limited airways provided for civil traffic but no air traffic services (ATS);
- military aircraft were operating above and below civil operations (FL300 remained blocked for the military), although there was theoretical segregation in airspace blocks;
- Visual Flight Rules (VFR) only, with possibly no radio or radar for Kabul civil operations, and limited or no approach services at other international airports; and
- there was no endorsement from the ACAA.



AHACG/1 Meeting

In regard to the military contingency plan, AHACG/1 noted that:

- civil air operators might choose to proceed on the basis of their own safety risk assessment and security plan over a conflict zone, but without ATS the airspace was ‘sub class G’:
 - no Air Traffic Control (ATC) separation assurance and no updates for adjacent ACCs (especially concerning for crossing routes);
 - no flight information, Search and Rescue (SAR), and;
 - no support for civil aircraft during irregular operations (such as depressurisation , weather deviations, etc.); and
- reliance on ‘due regard’ by the military was problematic, especially with piloted and remotely piloted aircraft, and ordnance issues.



AHACG/1 Meeting

A number of contingency scenarios were considered:

- **Scenario A:** Partial Kabul FIR Contingency Services –this is a matter for Afghanistan to manage under its Annex 11 obligations;
- **Scenario B:** Kabul FIR Contingency Services – no ATC service, and a number of restrictions are applied;
- **Scenario C:** Iranian Airspace Routes – routing via Iranian airspace due to a number of ‘hot spots’ in Syrian, Iraq and European airspace;
- **Scenario D:** Middle East Contingency Procedures – not considered due to current congestion in the Gulf and longer routings;
- **Scenario E:** ATS route L888 – via China for some Southeast and East Asian traffic, routing north of the Himalayas via RNAV 10 route L888;
- **Scenario F:** ‘Silk Road’ concept – for traffic north of the Himalayas using direct RNAV 2/RNP 2 tracks (not a short term solution).



AHACG/1 Meeting

Other key outcomes of the AHACG/1 meeting:

- EUROCONTROL provided an initial evaluation of possible contingency ATS routes using an airspace modelling tool;
 - The circumnavigation of the Kabul FIR would result in major disruption of major traffic flows between Europe and Asia
- Thailand provided a presentation on Air Traffic Flow Management (ATFM) traffic data that indicated main traffic peaks in the evening hours between 2000 and 2359 UTC;
- IFATCA were concerned by the safety implications of a large number of flights to alternative routes or into a single FIR;



AHACG/1 Meeting

- Safety/security cases were required (by 10 October 2014 – note that these had not yet been provided, even before the High Level Meeting);
- Iran provided a presentation on some of their current difficulties, including:
 - lack of radar in the southeast due to the inability to source spare parts;
 - traffic congestion requiring temporary routes and re-sectorisation;
 - Communication difficulties with Kabul, and procedural difficulties with Karachi; and
- Promulgation in accordance with Annex 15 was discussed.



AHACG/2 Meeting

AHACG/2 (Istanbul, 17-19 November 2014) key outcomes are as follows.

- Attended by 49 participants from Afghanistan, Armenia, Azerbaijan, Bulgaria, Georgia, India, I. R. Iran, Kyrgyzstan, Malaysia, Pakistan, Russian Federation, Singapore, Tajikistan, Thailand, Turkey, USA, IATA, IFALPA, NATO, ISAF/AFCENT, and EUROCONTROL.
- ANS transition planning was well behind and the ACAA was yet to employ two experienced ANS inspectors for oversight.
- An extension of the current contractor for 6-9 months was expected as the inter-agency agreement had been signed.



AHACG/2 Meeting

- The short term option of ANS delegation for the upper airspace to another State – until such time as Afghan controllers were trained – was discounted by Afghanistan for the moment (this option was still possible for the medium to long term).
- Regarding Scenario B: *Kabul FIR Contingency Services* – the ACAA had endorsed the military contingency plan; however this did not provide any services to civil aircraft, and was unacceptable to IFALPA. An Annex 11 compliant plan needs to be developed by the ACAA with safety/security cases.
- Regarding Scenario C: *Iranian Airspace Routes* – Iran's paper outlined proposals for an Organised Track System (OTS).

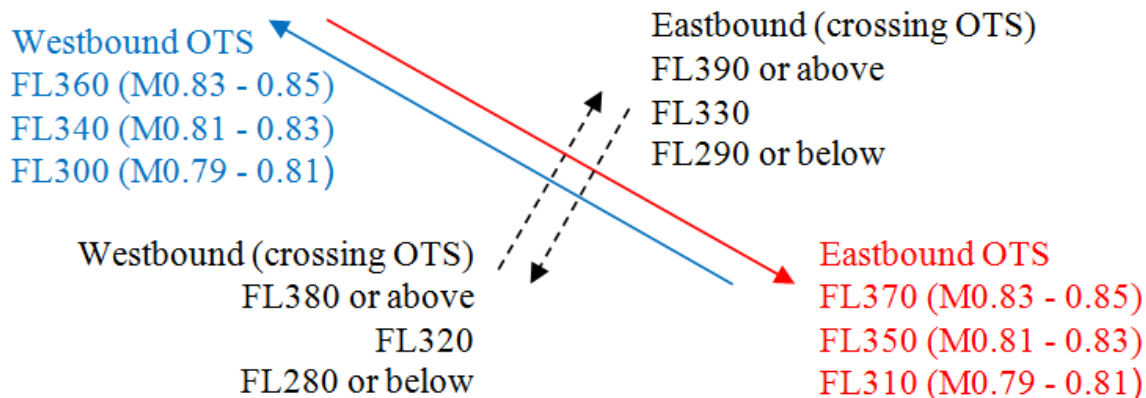


AHACG/2 Meeting

- Contingency services (flight following, emergency responses, etc. but not ATS) could be provided within the Kabul FIR by trained Afghan controllers – this was being analysed by ACAA.
- Thailand's Bay of Bengal Cooperative ATFM System (BOBCAT) used for the Kabul FIR during peak hours could operate H24 in the instance of contingency services. If traffic avoided Kabul, EUROCONTROL noted 250+ flights per day would be affected, with extra flight lengths of more than 500NM.
- BOBCAT (backed up by EUROCONTROL's Network Operations Centre) may or may not be utilised by any Iran-Turkey OTS, as ATFM measures between ACCs may be sufficient to manage workload.

AHACG/2 Meeting

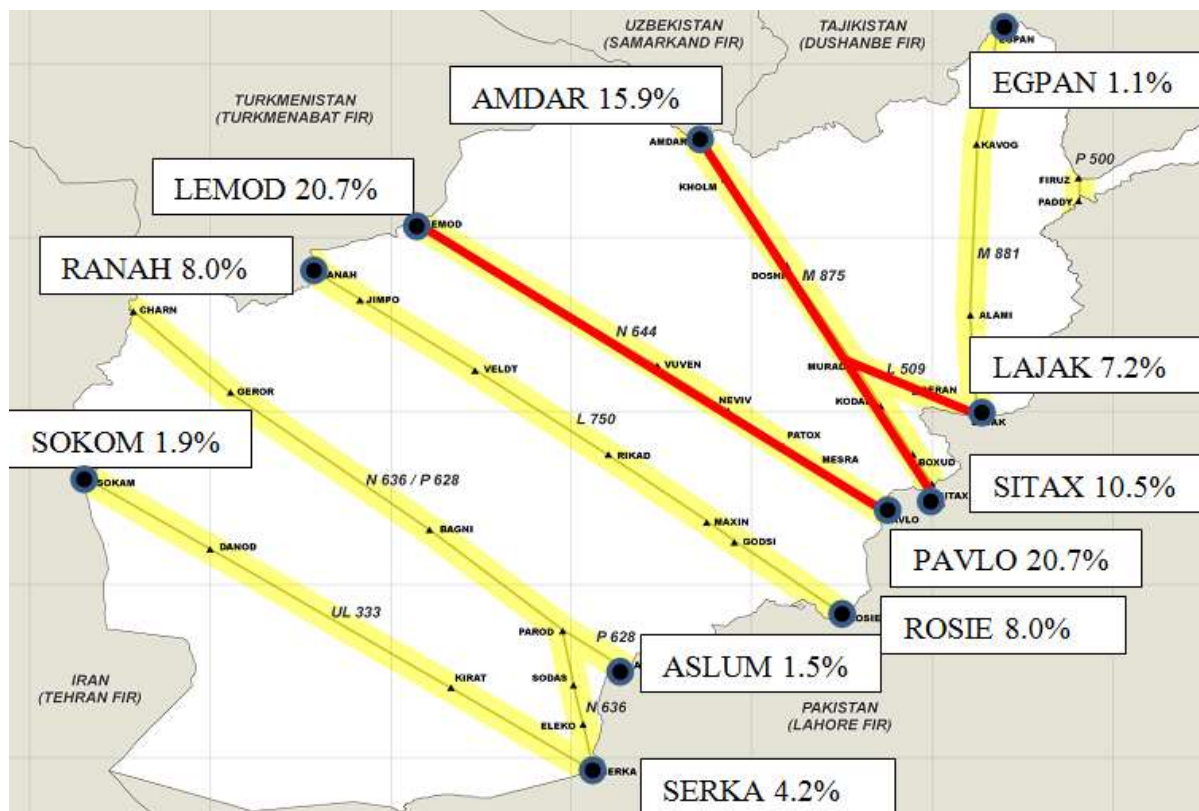
- Crucially, Pakistan endorsed Iran's OTS [non-rigid] contingency scheme, and agreements on the Turkey/Armenia/Azerbaijan – Iran interface facilitated the efficiency of this system.



- Regarding *Scenario E: ATS route L888 – via China*, no update on capacity was provided (and L888 had terrain constraints); Tajikistan agreed to improved routes north of Afghanistan.

AHACG/2 Meeting

- N644 and M875 carried ~70% of aircraft, and data link carriage (ADS-C, CPDLC) was ~ 60% and 74.3% respectively.





AHACG/2 Meeting

- AHACG/2 noted that Afghanistan was having problems with its flight plan system and poorly functioning AFTN and unreliable communications with Pakistan.
- A Communications Coordination Meeting was planned at New Delhi, 16-17 December 2014; Iran was also invited.
- The crucial Very Small Aperture (VSAT) systems supporting ATS COM and the currently disabled multilateration (MLAT) system was vulnerable, with no backup.
- The VSAT COM contract will end in February 2015, so a contract extension or a new contract should be in place before the deadline date.



Conclusions

The main conclusions for the High Level Meeting are as follows.

- The ANS contract extension is considered to be a formality by insiders, but there are only 17 days until the current contract expires – and an extension only provides time to consider the medium to long term problem, which is not yet solved.
- Apart from the extension, the ANS contract termination date is not the most important issue for contingency planning, as a contingency plan is required for any event that may affect the delivery of services at any time (such as a security event, or even something as simple as a remote communication facility running out of fuel).



Conclusions

- Planning for Kabul FIR contingency must not be done in isolation (i.e.: only considering the Kabul FIR), as the traffic flow and complexity of the situation will inevitably affect other FIRs – therefore while Scenario B is largely a matter for Afghanistan to agree contingency solutions, it is necessary to also plan alternative (Scenario C, E) traffic flows.
- Scenario B with no ground support would probably fail any safety/security case, and is not accepted by IFALPA.
- Without experienced ANS inspectors and an effective State Safety Program, the ACAA is not in a position to effectively regulate ANS (there is also no aeronautical MET and SAR, and AIS is largely provided by AFCENT).



Conclusions

- The contingency response for Afghanistan affects, at a minimum three ICAO Regions, which requires the close cooperation of all three ICAO Offices (Paris, Cairo, Bangkok).
- The emphasis is now on States – especially the ‘core States’ Turkey, Iran, Afghanistan, Pakistan and India – to expedite their contingency planning (not proposals) and associated safety/security cases (ACAA needs to develop an Annex 11 compliant contingency plan).
- Iranian and Turkish airspace were at times already beyond capacity, without any extra aircraft diverting away from the Kabul FIR (therefore the OTS may be considered for ‘normal’ operations).

Conclusions

- AHACG/2 in particular provided an extraordinary opportunity for a large number of States to conduct valuable coordination – a large number of capacity building measures, reduction of complexity other and improvements were agreed as a result, which will assist any future contingency requirement.





Conclusions

- Due to the lack of State safety/security plans and firm agreement on the 'complete' contingency scheme, a third AHACG meeting will be necessary about April 2015, to:
 - agree on all contingency components (ATS routes, ATC procedures, ATFM measures, promulgation, and communications);
 - review the training and simulation planning;
 - review the completed safety and security cases of affected FIRs;
 - establish the reporting and monitoring scheme to oversee effective implementation;
 - address the issue of proper State oversight of the ANSP; and
 - provide further advice on Kabul FIR medium to long term solutions.



Next Steps

The High Level Meeting is urged to consider and comment on the following expected steps:

- ANS Contract extension (by 01 December 2014);
- ACAA to secure ANS inspectors for safety oversight – ASAP;
- Urgent resolution of COM issues (by 17 December 2014);
- Decision on plan for future new ANS (by 01 January 2015);
- Turkey, Iran, Afghanistan, Pakistan and India to present their final contingency plans for disruption in the Kabul FIR, with associated safety and security cases (by 01 February 2015);
- ICAO and ACAA to develop a Plan of Action for capacity building of the safety oversight system (by 01 February 2015);



Next Steps

- VSAT contract to be extended or a new contract signed (by 01 March 2015);
- ACAA to establish processes for the provision of aeronautical MET, aeronautical SAR and AIS (by 01 April 2015);
- Conduct of the AHACG/3 (by 01 May 2015).



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THANK YOU