



International Civil Aviation Organization

The Second Meeting of the Ad Hoc Afghanistan Contingency Group Meeting (AHACG/2)

Istanbul, Turkey, 17-19 November 2014

Agenda Item 2: Afghanistan ATS Status and Capability Building

UPDATE ON REGIONAL PLANNING FOR AFGHANISTAN CONTINGENCY

(Presented by the Secretariat)

SUMMARY

This paper presents 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).

1. INTRODUCTION

1.1 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 do not accurately depict the current situation (although they could be used to assist Afghanistan's long-term planning). The ANS contract for the current contractor providing ANS was due to expire in mid-December 2014.

1.2 The ICAO Asia/Pacific (APAC) Office conducted a Mission to Afghanistan (Kabul, Afghanistan, 17-19 June 2014) to assess the readiness of the State to undertake appropriate regulatory oversight and the progress of the transition of ANS from military to civil control. The key issue identified during the mission was that:

The process for the transition from ISAF to ACAA's control did not appear to have sufficient time, and nor did it appear sufficiently robust in terms of milestones reached and planning to satisfy the Mission that a smooth transition was certain. In light of the fact that there were significant concerns with the lack of redundancy in certain critical systems, no evidence of contingency planning, and the lack of operational and regulatory experience within the ACAA, the Mission was extremely concerned about the transition situation in the near future.

1.1 As a consequence, twelve recommendations were made by the Mission (**Attachment A**), with a focus on ANS transition planning.

1.3 The Second Meeting of the APANPIRG Air Traffic Management Sub-Group (ATM/SG/2, Hong Kong, China, 04 to 08 August 2014) recognised the overriding importance of contingency planning for the Kabul FIR required an urgent response in establishing the Ad Hoc Afghanistan Contingency Group (AHACG), due to:

- the smooth transition from military to civilian control of Afghanistan's airspace was uncertain;

- the security situation in Afghanistan remained fluid, which threatened facilities and personnel;
- there were vital communications and Air Traffic Services (ATS) surveillance facilities that either had no redundancy, or had failed already, or were being planned to be withdrawn; and
- Afghanistan had no established ATM Contingency Plan, so this might affect many airlines transiting the Kabul Flight Information Region (FIR) between Europe and Asia.

2. DISCUSSION

Status of ANS Contract

2.1 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 through the Afghanistan Civil Aviation Authority (ACAA) for the current ANS contract with IAP Worldwide Services to be extended by three months. Since then, there had been unconfirmed reports of a contract extension of between three and nine months being offered by the North Atlantic Treaty Organization (NATO)-International Security Assistance Force (ISAF) and United States Air Force Central Command (AFCENT). This was intended to bridge the gap from the day the current arrangements that were due to expire on 15 December 2014 until a new arrangement could be put in place. In summary, the options for the medium and longer term included:

- a) ISAF extending the contract of the existing ANS Provider (ANSP), which was considered unlikely; or
- b) Afghanistan funding the extension of the current contract with the existing ANSP; or
- c) Afghanistan engaging a new ANSP; or
- d) Afghanistan delegating ANS responsibilities to another State such as India, which could provide the ANS remotely¹.

2.2 Any extension of the current contractor (iAP) would require a number of steps to be completed:

- a) US Congressional approval;
- b) GIROA approval;
- c) the signing of an Interagency agreement;
- d) the task order to be published; and
- e) negotiations with iAP to be completed appropriately.

State Participation

2.3 Unfortunately, crucial matters affecting Chinese airspace (regarding the possibility of enhanced capacity through China as an alternative route) were not able to be discussed at the AHACG/1 because the Chinese delegates were not present on the second day of the meeting, and major issues concerning the Lahore and Karachi FIRs were also not able to be discussed due to Pakistan's non-attendance.

¹ Utilising Automatic Dependent Surveillance – Contract (ADS-C) and Controller Pilot Data Link Communications (CPDLC) at first, before remotely activated ground based systems could be used.

2.4 The Second Europe – Asia Trans-regional Special Coordination Meeting (EAT/SCM/2) was held at Beijing, China from 22 to 23 September 2014, and was intended to follow-up AHACG/1 as an opportunity to further discuss aspects of Afghanistan planning. Although note was made of the extra traffic that may operate and new routes via Tajikistan and other Central Asian States that might assist as alternatives were discussed, the absence of China at EAT/SCM/2 did not allow discussion on potential capacity of routes north of the Himalayas.

2.5 As at 06 November 2014, India and China were the only key States that had not yet registered for the AHACG/2 meeting.

Afghanistan Contingency Plan

2.6 The NATO/AFCENT contingency plan for Afghanistan was presented to the AHACG/1 meeting. If Afghan authorities were unable to resource or fully fund a new Kabul Area Control Centre (KACC) contract by 15 December 2014, all airspace within the Kabul FIR, excluding Control Areas/Control Zones (CTA/CTR) surrounding military controlled airfields would become Class G (uncontrolled) airspace and become unmonitored.

2.7 Furthermore, there would be a lack of adequate Communications, Navigation, Surveillance (CNS) infrastructure at Kabul International Airport (KAIA), as it would only have non-controlled Visual Flight Rules (VFR) operations. The associated ATC radars and radio antennas would also be shut down, resulting in a loss of radar and radio coverage in large areas of Afghanistan. Although the meeting noted that Kabul Tower was already staffed by some Afghan controllers, they were not at the supervisory or management level. ICAO remarked that it would not be acceptable for international civil aviation aircraft to operate VFR in such circumstances.

2.8 For the low airspace (below FL300), a military contingency plan was developed to provide for a safer airspace environment and to mitigate foreseen hazards between military and civil aircraft, considering that some civil air traffic within Afghanistan would continue operating in uncontrolled airspace. Lateral de-confliction would require a segregation of military and civilian aircraft to separate designated airways. There would be seven airways designated for military traffic and four east/west, north/south airways for civilian traffic. However, the non-provision of ATS to civilian aircraft was a significant safety problem, as was the presence of Remotely Piloted Aircraft (RPA) with no ‘see and avoid’ capability. The Afghanistan representatives to the AHACG/1 meeting clarified that the GIROA had not yet approved the ISAF contingency plan.

2.9 The AHACG/1 meeting discussed the possibility of current upper airspace routes through the Kabul FIR being made available by imposing procedural restrictions and risk mitigation measures such as Traffic Information Broadcast by Aircraft (TIBA), despite it being uncontrolled. The meeting was divided about this possibility, particularly after the recent tragedy of MH17 over another conflict zone. Since AHACG/1, IATA had confirmed that several airlines had indicated that they would prefer to re-route around Afghanistan rather than fly within the Kabul FIR using uncontrolled airspace procedures.

Scenarios

2.10 Regarding the potential contingency schemes that could be considered, either by themselves or combined as appropriate, the following updates are provided (the scenarios in grey text were not a focus for the AHACG):

- **Scenario A:** *Partial Kabul FIR Contingency Services* – in the event that some parts of the Kabul FIR are unable to be provided with an ATC service (this is a matter for Afghanistan to manage under its Annex 11 obligations, mainly in terms of strengthening ATC and CNS facilities against outages caused by maintenance and security problems);

- **Scenario B:** *Kabul FIR Contingency Services* – no ATC service but upper airspace is not affected by military or security concerns, and a number of restrictions are applied (this scenario presented a number of potential risks because it was difficult to mitigate against problems created by the operation of civil and military in the same airspace or conflict zone security issues in Afghanistan. In addition, the possibility of an irregular event or emergency may require a level of direct support that could mean this scenario failed a safety case. 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;
- **Scenario D:** *Middle East Contingency Procedures* – involving the Contingency Routing Plans for Asia/Middle East/Europe (CRAME 03) procedures via the Gulf (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 (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);
- **Scenario F:** ‘Silk Road’ concept – for traffic north of the Himalayas using direct RNAV 2/RNP 2 tracks from Kunming to Europe (not considered because it is a longer term concept).

Kabul FIR Data Assessment

2.11 Thailand had updated the data analysis provided at AHACG/1. Figure 12 shows the average hourly traffic by direction, based on the December 2013 Traffic Sample Data (TSD).

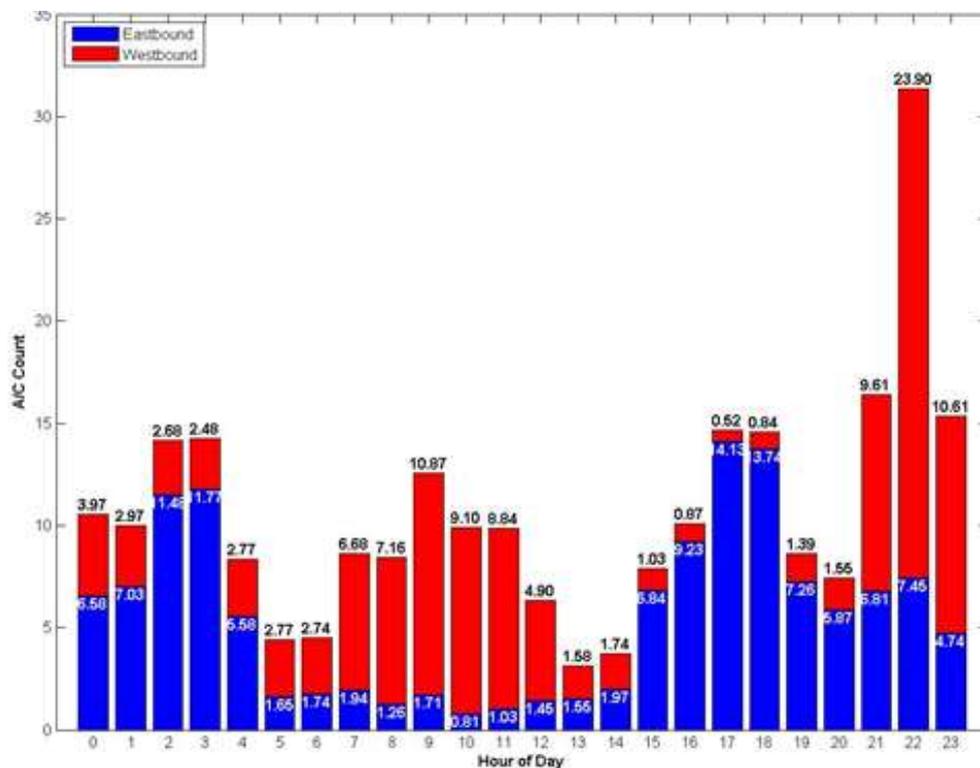


Figure 1: Kabul FIR Average Hourly Traffic

2.12 The vast bulk of en-route traffic used N644 and M875 (in red, **Figure 2**), 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. Therefore, it could be assumed that at least **60%** of aircraft can be provided with a remote ANS based on ADS-C and CPDLC alone. Noting that Area Control Centres such as Delhi also had High Frequency (HF) and SATVOICE, a much higher percentage may be able to be accommodated with such a scheme.

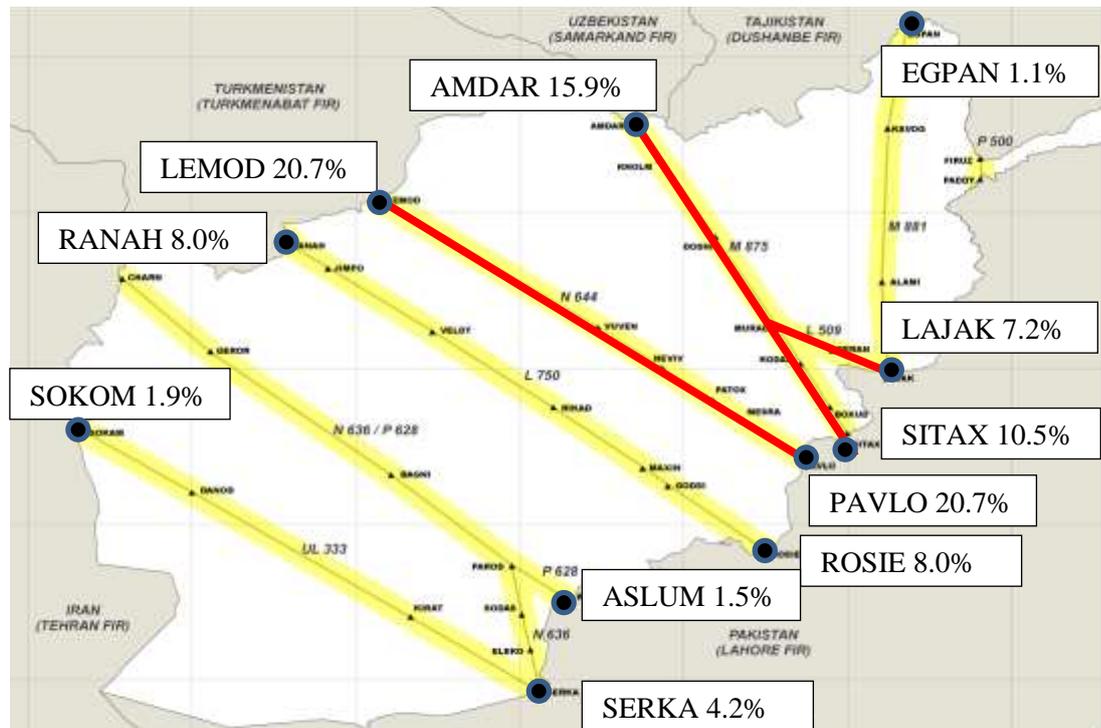


Figure 2: Traffic Loading on High Level Kabul FIR Routes

2.13 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.

2.14 The recent Trans-Regional Airspace and Supporting ATM Systems Steering Group (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. The meeting suggested that a moratorium on ATS route changes within the Tehran FIR in particular should be considered, until the end of 2014 at least. TRASAS/4 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.

Communications Coordination Meeting

2.15 A Communications Coordination Meeting between Afghanistan, Pakistan and India was planned for 16-17 December 2014 at New Delhi, India.

Contingency and Safety Plans

2.16 As at 07 November 2014, more than three weeks after the expected date of submission determined by the AHACG/1 meeting, only Iran had provided early details of its contingency planning, which was contained within AHACG/2/WP05 (Agenda Item 3). Further discussion on State planning will be conducted under Agenda Item 3: *Europe- Southeast/South Asia Contingency Planning (scenarios, procedures)*, and Agenda Item 4: *Civil/Military cooperation, contingency promulgation and implementation (safety cases, security analysis, etc.)*.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

.....