

*INTERNATIONAL CIVIL AVIATION ORGANIZATION***TWENTY SIXTH MEETING OF THE ASIA/PACIFIC AIR NAVIGATION
PLANNING AND IMPLEMENTATION REGIONAL GROUP
(APANPIRG/26)***Bangkok, Thailand, 7 – 10 September 2015***Agenda Item 3: Performance Framework for Regional Air Navigation Planning and
Implementation****3.2: ATM****ROLE OF PAKISTAN IN AFGHANISTAN CONTINGENCY PLANNING***(Presented by Pakistan)***SUMMARY**

This paper presents Pakistan's evaluation on airspace contingency plan for transition efforts in Afghanistan as well as the possible options to handle the traffic safely and efficiently in case of no ATS in Afghanistan airspace. This paper also describes the measures under consideration within Pakistan for improvement of traffic flows.

1. INTRODUCTION

1.1 Afghanistan is in the phase of planning for transition of Air Navigation Services (ANS) from the military to Afghan civil authorities. However, lack of experienced Afghan Air Traffic Control Officers (ATCOs) is the main issue affecting the continuity of the Air Traffic Services during transition. The current setup for provision of ATS within Kabul FIR has been extended for three months and Afghanistan has to arrange a new contract before expiry of extension period. If this is not done, airspace within the Kabul Flight Information Region (FIR) would become uncontrolled airspace.

1.2 As per Decision ATM/SG/2-4 an ad hoc group is convened supported by the ICAO Asia/Pacific Office and consisting of IATA, IFALPA, Afghanistan, China, India, Iran, Oman, Pakistan, Singapore, the United States, Thailand and other affected parties as necessary to urgently to address any contingency aspects for the continued safe and efficient operation of aircraft between Europe and the Asia/Pacific Region. Two Meetings of Adhoc Afghanistan Contingency Group were held in September and November 2014. The group discussed the different scenarios and possible alternate routings which could be available in case of disruption of services / closure of Kabul FIR.

1.3 Pakistan has presented some options in AHACG/2 Meeting held in Turkey. It was decided that states formulate and submit their contingency plan to deal the scenario alongwith the safety and security case. This paper presents the readiness of Pakistan for some of the possible plans which may be implemented by Pakistan on short notice.

2. DISCUSSION

2.1 Pakistan play strategic role in supporting traffic flows to/from Europe / America to South Asia / Southeast Asia overflying Kabul FIR. Any disruption in provision of ATS within Kabul FIR may result in avoidance of Kabul FIR by aircraft operators. It may have severe impact on the traffic flows on number of parallel ATS Routes in Kabul FIR (L333, P628, L750, N644, L509/M875). On an average, more than 200 flights per day operate through Pakistan airspace to/from Kabul FIR (High sector).

2.2 The different possible scenario under discussion during previous meetings includes partial or total Kabul contingency services or avoidance of Kabul FIR through number of alternate options using Iranian, Gulf or Chinese airspace. The concentration was made on undermentioned Scenario B, C, and E which involves Kabul Contingency services with availability of upper airspace without air navigation services, re-routing via Iranian airspace and China using ATS route L888. Pakistan has also identified different options including availability of ATS route P500 with direct transfer of control between Lahore and Dushanbe ACC. Pakistan had presented its role in each scenario in AHACG/2 and offer following possible solutions.

3. SCENARIO B

3.1 The best possible option Afghanistan can undertake during the disruption in the provision of air traffic services is the availability of upper airspace (FL 310 and above) not affected by military activities. Crossing / converging ATS routes in upper airspace within Kabul FIR may need to be closed (at or above FL310) to ensure safety of aircraft operation. Further, in order to enhance safety and channelize traffic flows in case of no ATS, existing routes in Afghanistan airspace may be segregated as unidirectional for east / west bound traffic. The routes segments ATS Route N636 (PAROD-SERKA) and M875 (TAPIS-SITAX) may be closed to avoid convergence.

3.2 The ATS Routes N636, L750 and M875 may serve for eastbound traffic and ATS route P628 (available between 1900-2400UTC in Pakistan airspace) and ATS Route N644 may serve the westbound traffic overflying Afghan airspace. Pakistan can ensure longitudinal separation of 10 minutes at TCPs with application of Mach number technique so that the minimum longitudinal separation should continue to exist for at least 01 hour beyond TCP. However, advisory services by Lahore / Karachi ACCs within Kabul FIR would not be practicable due to number of limitations. Iran, Turkmenistan and Tajikistan would also ensure 10 minutes longitudinal separation over respective TCPs for east bound traffic keeping FL330 vacant as per existing restriction. Pakistan may also consider feeding westbound traffic via SERKA to P628 beyond the operational hours of this route.

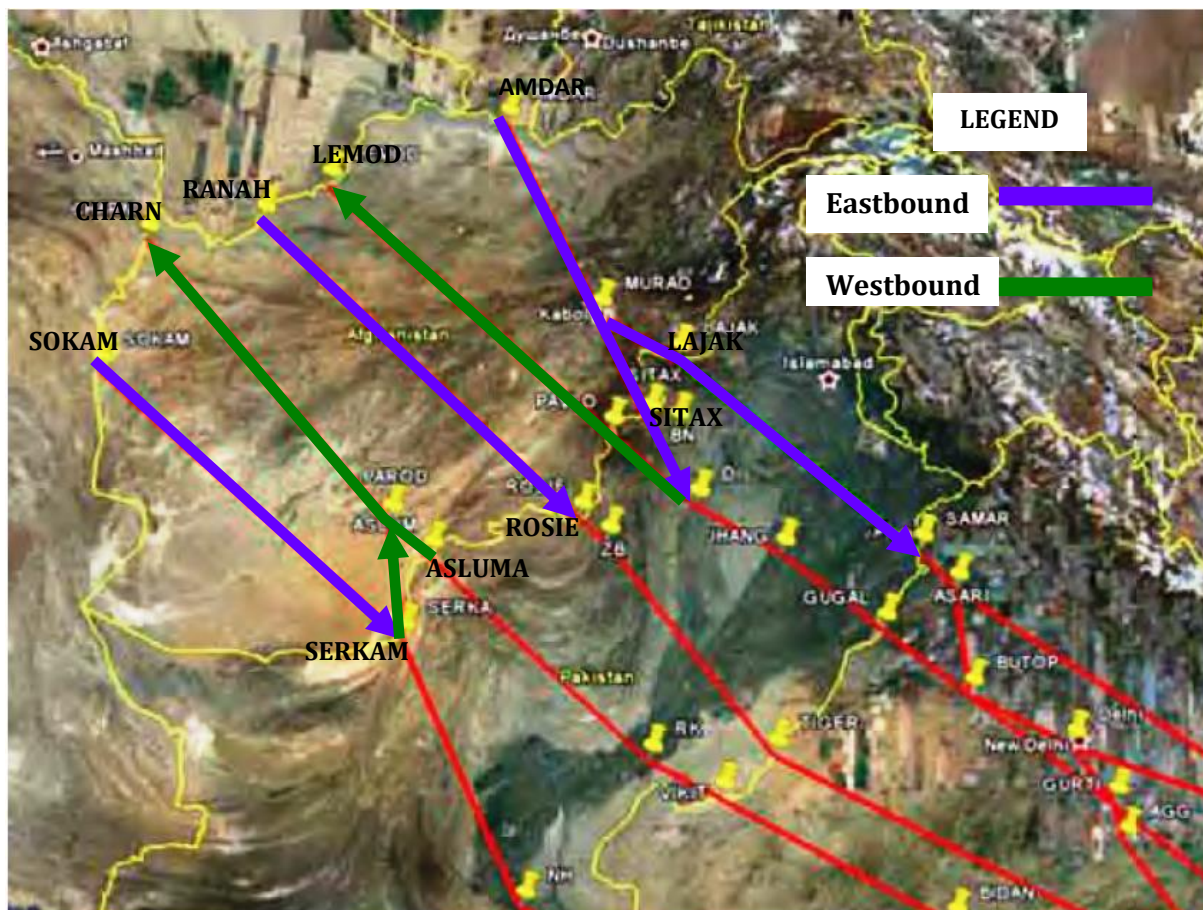


Figure -1 Kabul FIR with unidirectional routes

3.3 In case of continued availability of Kabul FIR, the extension of BOBCAT timings to 24 hours as discussed during first meeting would ensure availability of optimum levels and adherence to flight planning for operators is supported. Safety can further be augmented by implementing TIBA procedures. However, continued operation over Kabul FIR without availability of air navigation services would be the decision of air operators.

4. SCENARIO C

4.1 Iranian contingency routes in Scenario C have potential to accommodate rerouting to avoid Afghan airspace upto certain extent. The ATS route L124 (KEBUD), G665 (ASVIB) and G452 (DERBO) are already under operation. Some of the diversionary traffic to/from South and Southeast Asia can operate to and from Europe even at optimum profiles on these routes if the airspace within Kabul is not available. However, if all of the existing traffic overflying Kabul which exceeds 200flight per day divert to Iranian airspace, there may be instances when traffic exceeds capacity and operators may not get their preferred levels. Furthermore, to allow crossing traffic in Iranian airspace, the proposed blockade of levels on Royal Road OTS would further reduce the capacity of the route.

4.2 Pakistan also supports the approach to enhance airspace capacity by implementation of 50 NM RHS which would help to accommodate additional traffic in case of diversion from Afghanistan. New LoA between Karachi / Lahore ACCs with Tehran/Kabul/Mumbai/Delhi ACCs, have already been signed however, implementation of 50NM longitudinal separation is still awaited due to non readiness of India. It would not be possible for Pakistan to accept traffic at 50NM separation and transfer the same at 80NM or 10 minutes longitudinal separation to India. The risk

management process has identified the significant traffic from Middle East to North Asia/ South Asia entering Karachi FIR from Tehran via METBI/EGRON as a safety concern as it crosses traffic flows between Europe / South Asia / Southeast Asia at various points within Pakistan. In this scenario, Tehran should only release traffic at METBI/EGRON with 5 minute or 50NM once agreed by India at only those levels (FL 390 and above, FL 330 and FL 290 and below) which are earmarked for crossing OTS in Tehran.

4.3 Pakistan has implemented 5 minute longitudinal separation based on surveillance environment within its airspace and same is also used for transfer of control with Muscat ACC for more than 15 years. Pakistan can consider the same for all traffic under surveillance environment provided all neighbouring ACCs consent for the same. In order to address the safety concern related to crossing traffic, it would be appropriate to use the same methodology as envisaged for application in Royal Road OTS.

4.4 Pakistan has also studied the traffic orientation highlighted by Iran during AHACG/2. The bidirectional route DERBO/ULDUS is sufficiently spaced from rest of the 2 routes and has no concerns. However, eastbound flow on MAGRI/KEBUD and DASIS/ASVIB sector will ultimately converge over PG just in few minutes after the transfer of control resulting in difficulties for Tehran/Karachi ACC. In order to provide parallel route for traffic from Tehran ACC, Pakistan may consider an additional flow on a new direct route (BI-directional) between PEKES and NH VOR. However, it would be possible only if India agree on the following. It would support to accommodate a large number of aircraft in case Kabul airspace is closed;

- a. An onward suitable bi-directional connectivity from Nawabshah on B210 or A325 to Pratapgarh (PRA VOR) via CHOR (KE); or
- b. An onward suitable east bound connectivity from Nawabshah to a new point 2431N 07100E (north of Party) and then direct to Pratapgarh (PRA);
- c. If agreed on point (b), Karachi ACC shall not feed traffic after Karachi on A791 to TELEM onward to SASRO. This portion of route shall be suspended and re-established from Karachi direct to new point 2431N 07100E (north of Party) uni-directional east bound like A791.

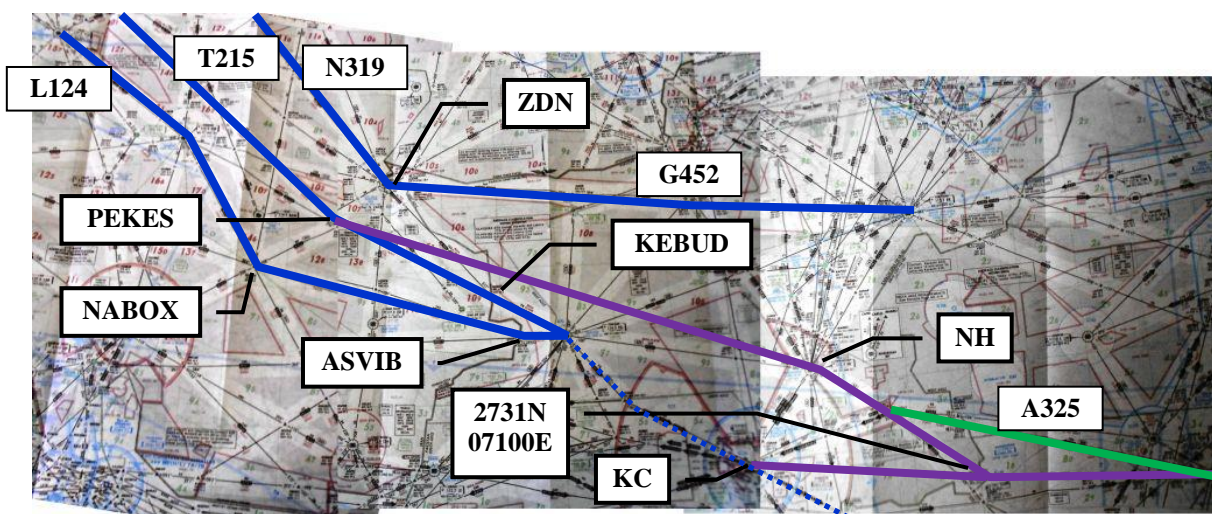


Figure -2 Iran Royal Road OTS alongwith possible improvements

4.5 In addition to the reduced longitudinal separation to enhance airspace capacity, Pakistan is in the process of release of 02 levels i.e. FL410/FL430 which are presently not available within Pakistan airspace due operational reasons. It is likely that these levels would be available in case of any such contingency.

Other Option

4.6 ATS route P500 (DI – ADINA – PS – PADDY – FIRUZ) within Lahore FIR was proposed as one of the option for operators in case of avoidance of Kabul FIR due to non-availability of ATS or closure of Afghanistan airspace. Pakistan has recently optimized the route structure by providing an efficient connectivity from ATS Route L509 (SAMAR-LAJAK) by providing a route segment between JABAR and PS VOR. ATS Route L509 remains available between 1500 to m1900 UTC which covers major traffic flow period. Beyond these timings, aircraft can still follow P500 with comparatively longer route connectivity.

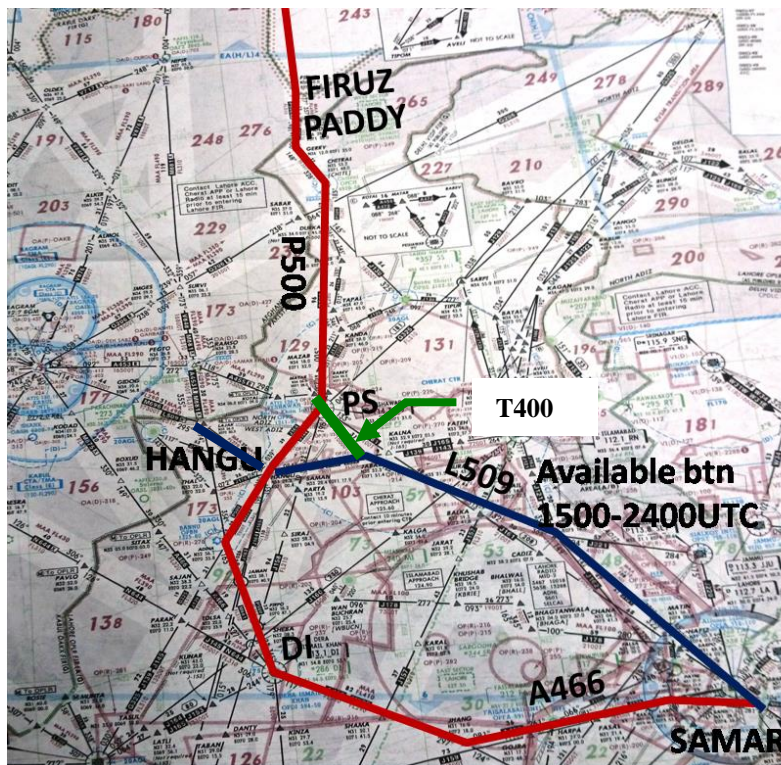


Figure – 3 ATS Route Connectivity L509/P500

4.7 Pakistan has always been facilitating international air transport within its territorial limits. The transition from RVSM to non-RVSM at Pak/Afghan TCPs from November 2003 to November 2011 and provision of separation over PAROD in Kabul FIR are the examples. Pakistan would continue to strive its best to serve for betterment of international air transport in this critical situation.

5. ACTION BY THE MEETING

5.1 The meeting is invited to note the information contained in this paper;

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