



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 4: ATM Systems (Modernisation, Seamless ATM, CNS, ATFM)

BOBCAT OPERATIONAL UPDATES (JUNE 2018)

(Presented by Thailand)

SUMMARY

The purpose of this paper is to present an operational analysis and overview of westbound flights through the Kabul FIR associated with the BOBCAT system for the two-year period between July 2016 to June 2018. In addition, the paper outlines changes to BOBCAT operation including Afghanistan entry waypoint rename, accommodation of new Perth – London flight operations, as well as impact of recent radar outage in Uzbekistan on BOBCAT operations.

1. INTRODUCTION

1.1 The meeting would recall that on AIRAC 5 July 2007, international long-range cross-border ATFM procedure using the BOBCAT system became fully operational.

1.2 It was agreed at the ATFM/TF/13 meeting held in September 2009 that monthly traffic sample data would be collected by all affected States in the third week of each month, sent to Bangkok ATFMU and analyzed by the Bangkok ATFMU for presentation to the periodic meetings of the ATFM/TF, which was later dissolved by APANPIRG/20 decision. Thenceforth, BOBCAT matters were followed up at SAIOACG meetings.

1.3 It was discussed at the SAIOACG/5 that Action Items related to ATFM Operations for Afghanistan airspace (Kabul FIR) should be reported to the ATFM/SG meetings. Accordingly, the latest post-operations analysis results are presented here for information and discussion.

2. DISCUSSIONS

2.3 2.1 During the 11-year period from the start of operational implementation of BOBCAT in July 2007 to June 2018; BOBCAT operations, based on IATA estimate, has contributed to over 140 million kilograms of fuel saving or approximately 570 million kilograms of carbon dioxide emissions.

2.4 2.2 The meeting is invited to note the summary of BOBCAT Slot Request volume received between July 2016 and June 2018 in **Figure 1**.

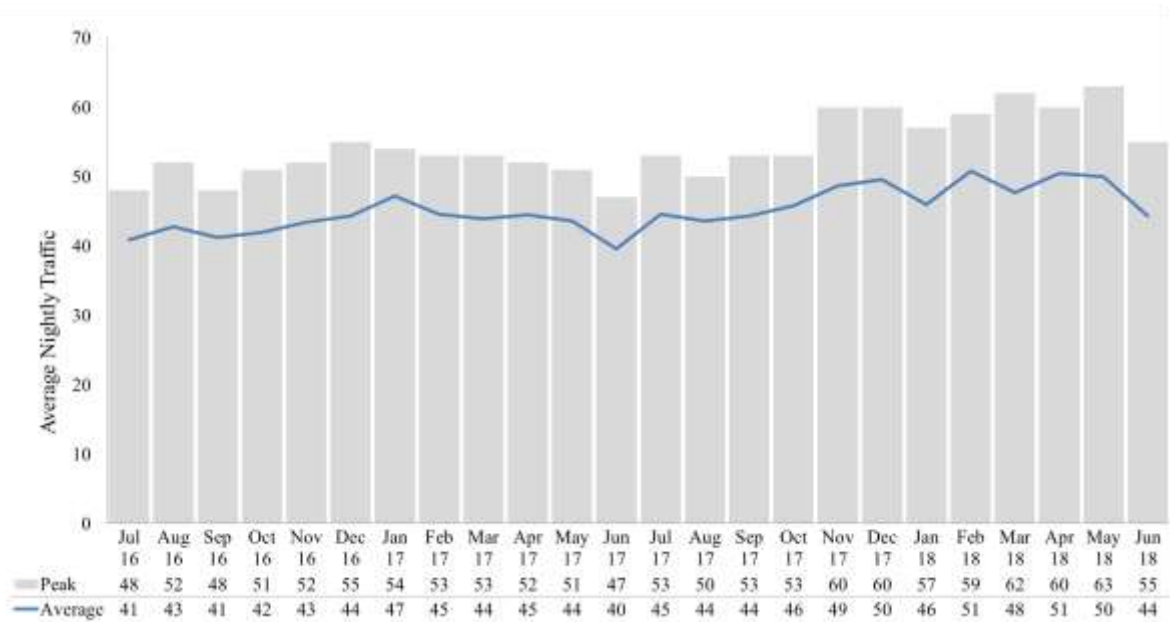


Figure 1: BOBCAT Traffic Demand from Slot Request: July 2016 - June 2018

2.5 The meeting is also invited to note that the number of airlines involved between July 2016 and June 2018 are 33 airlines. Top 10 airlines involved are illustrated in **Figure 2**.

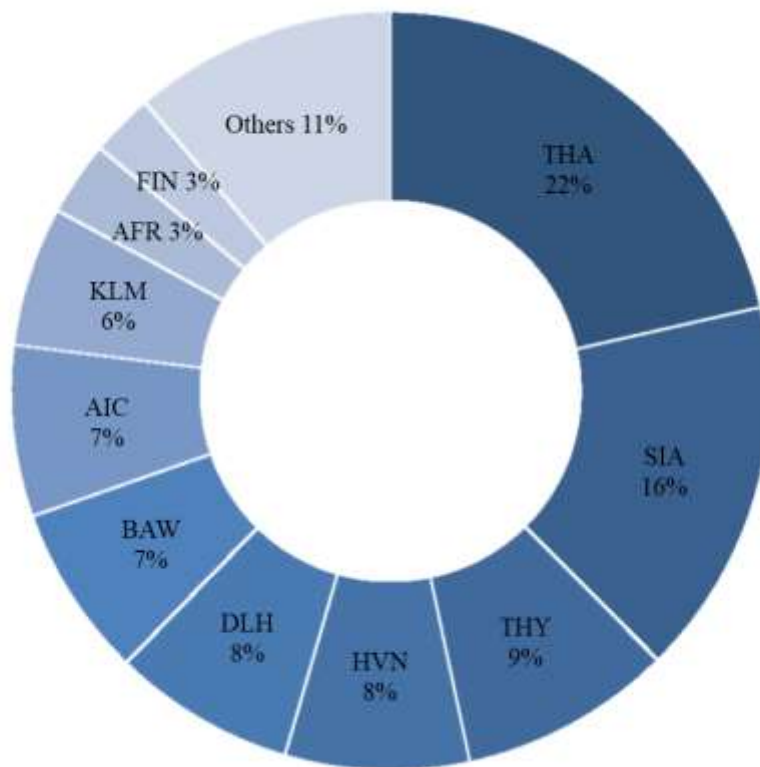


Figure 2: BOBCAT Airline Participation: July 2016 – June 2018

2.6 The meeting is invited to note that 38 airports continue to contribute total BOBCAT traffic based on July 2016 and June 2018 data as illustrated in **Figure 3**.

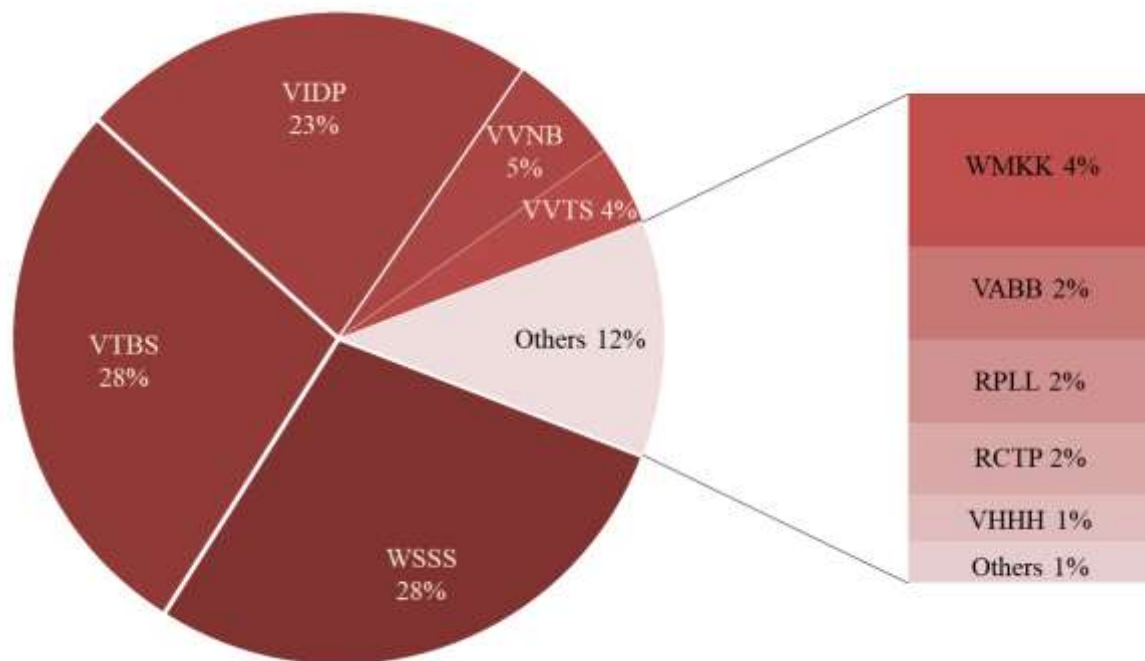


Figure 3: BOBCAT Slot Request by Departure Airports: July 2016 - June 2018

Timeliness of Slot Allocation Release

2.7 As more major airports involved in facilitating flight departures based on BOBCAT CTOT begin to adopt Airport Collaborative Decision Making (A-CDM), the demand for timely release of BOBCAT Slot Allocation increases to ensure aircraft operators can submit flight plans at least 3 hours before Estimated Off-Block Time (EOBT). Accordingly, Bangkok ATFMU began monitoring, as an additional performance indicator, the percentage of days in each month in which BOBCAT Slot Allocation is released within 10 minutes after the cut-off time. The data for the period between July 2016 and June 2018 is shown in **Figure 4**.

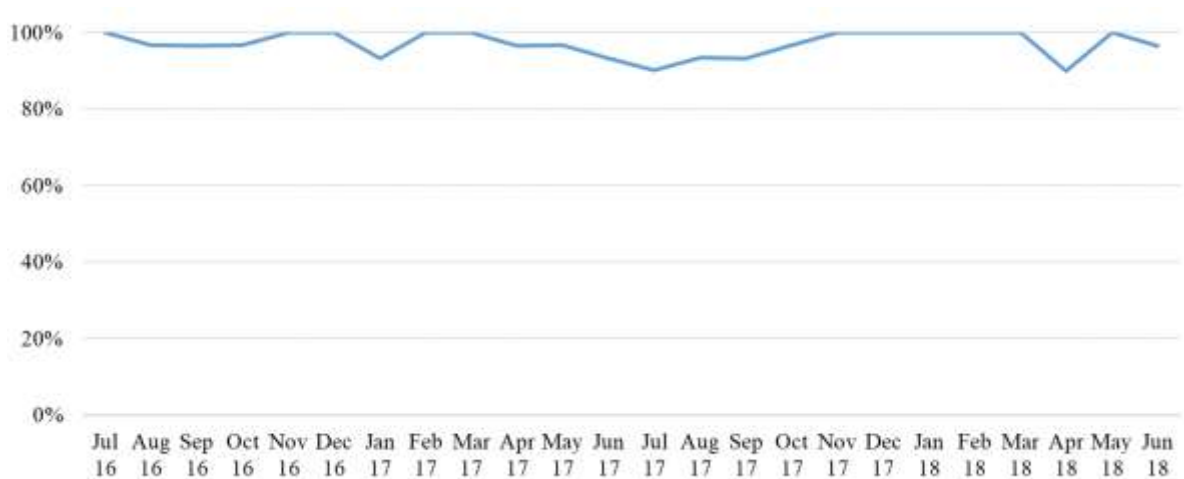


Figure 4: Ten-Minute Cut-off Time Slot Allocation Release Performance

Traffic Sample Data and Post-Operational Analysis

2.8 The meeting should be advised that one-week Traffic Sample Data used in post-operational analyses is collected from member ANSPs on the week starting with the third Sunday of each month.

Addressing of Flight Movement Message

2.9 In accordance to Action Item BBACG-20/1 (updated at SAIOACG/3), States were requested to ensure that flight plans and movement messages (DEP, CHG, CNL, etc) for flights subjecting to ATFM measures (e.g. BOBCAT GDP Airspace) are sent via AFTN to Bangkok ATFMU (VTBBZDZX).

2.10 As part of standard Post-Operational Analysis, Bangkok ATFMU would analyze the percentage of flights whose DEP messages were received as requested. However, due to difficulties in recording the data prior to January 2018, the analysis was carried out for the period between January – June 2018 only. Results are summarized in **Figure 5**.

2.11 The meeting should be reminded that flight movement messages should continue to be forwarded to the Bangkok ATFMU via AFTN (VTBBZDZX). It should also be noted that States failing to ensure proper transmission of movement messages, in particular, departure messages (DEP), may be given APANPIRG Air Navigation Deficiencies as per APANPIRG Conclusion 27/12. Additionally, for Post-Operational Analysis purpose, monthly one-week Traffic Sample Data from concerned ANSPs should also contain departure times from relevant aerodromes.

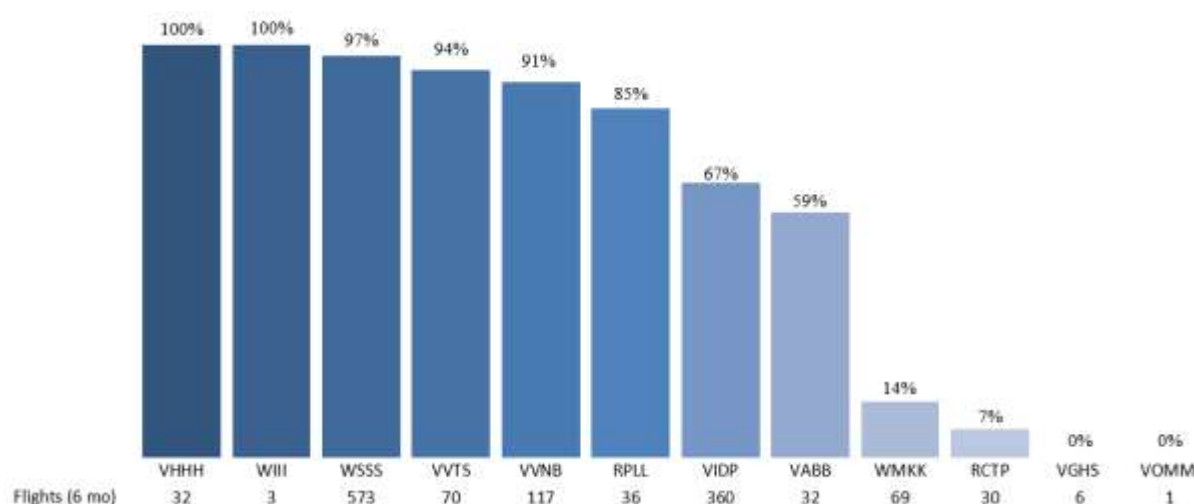


Figure 5: Average Percent of Flights with DEP Message Received: January - June 2018

Kuala Lumpur International Airport (WMKK) Taxi-Out Time

2.12 In response to airlines comments that departures from Kuala Lumpur International Airport (WMKK) default taxi-out time of 20 minutes is significantly above 15 minutes experienced by most airlines, Bangkok ATFMU coordinated with airlines operating from Kuala Lumpur International Airport through IATA and DCA Malaysia to operate reduced taxi-out time for WMKK on trial basis starting from 1 Nov 2017. This trial features reduction of taxi-out time from 20 minutes to 15 minutes. Airlines needing more taxi-out time can add extra taxi-out time when submitting slot request.

2.13 So far there were no negative feedback from airlines. However, due to non-receipt of Departure Message (DEP) for departures from WMKK, it has been very difficult to evaluate impact of reduced taxi-out time on CTOT compliance.

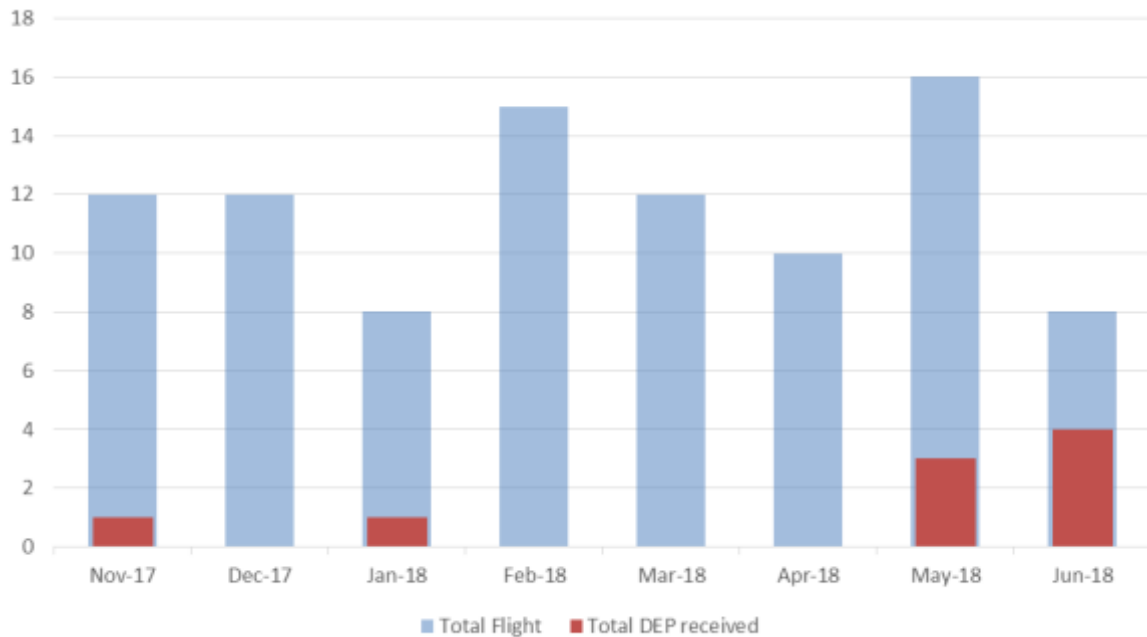


Figure 8: Comparison between total flight and departure message received from Kuala Lumpur International Airport (WMKK) since 1 November 2017 (3rd week sample)

2.14 During bilateral ATM Coordination Meeting between Malaysia and Thailand in July 2018, non-receipt of DEP message was discussed. Malaysian representatives highlighted that they adjusted AFTN messaging configuration to ensure that DEP messages are sent properly. Initial review of DEP messages received in Jul 2018 indicate significant improvement in percentage of DEP messages received, continuing improvement trend from May – June 2018 Traffic Sample Data.

Preferred Flight Levels

2.15 Post-Operational Analysis continues to indicate high percentage of flights operating through the Kabul FIR with the same or better flight levels as those requested, as indicated in **Figure 6**. Overall, the percentage of flights with same or better flight levels are continuously in the range of 85 – 94 percent

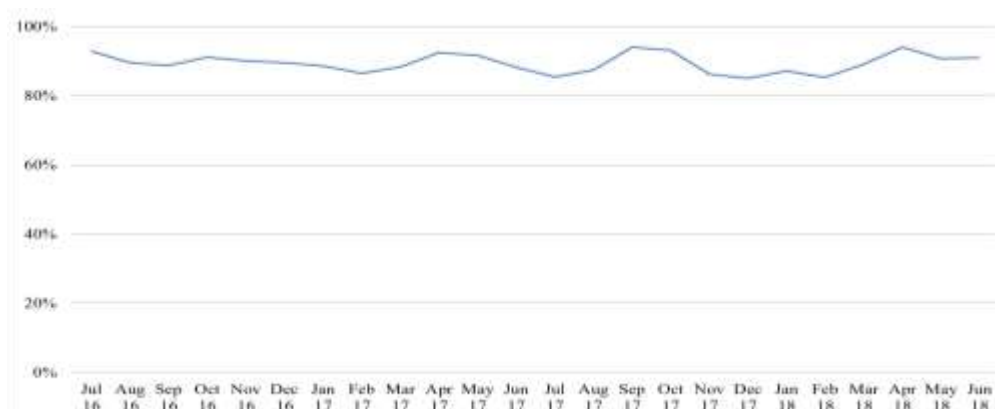


Figure 6: Percentage Achieving Same or Better FL: July 2016 - June 2018

2.16 **Figure 7** shows the analysis result on major causes of aircrafts not being able to enter Afghanistan at flight levels in accordance to those specified by BOBCAT Slot Allocation between July 2016 and June 2018.

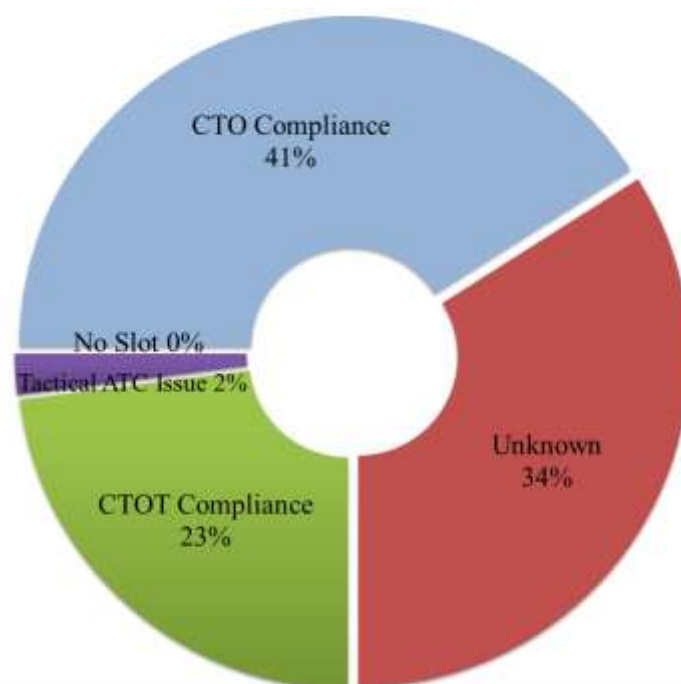


Figure 7: Causes of Flight Not Entering Kabul FIR at Slot Allocation FL: July 2016 - June 2018

2.17 As shown, major causes for aircrafts being unable to achieve preferred flight levels are:

- a) Kabul FIR Entry Time (CTO) Compliance: 41 percent
- b) Unknown (more data required): 34 percent
- c) Departures Punctuality (CTOT Compliance): 23 percent
- d) Tactical ATC issues: 2 percent
- e) Departure without Slot Allocation: 0 percent

2.18 The figure shows that leading major cause for FL difference is Kabul FIR entry-time (CTO) compliance (41%). This situation may arise from factors such as weather variations, tactical ATC operations, or inaccurate provision of estimate elapse time in the flight plan.

2.19 Airlines and ANSPs should note the importance of compliance with allocated Kabul FIR entry-time slot. **Flights should, where possible, attempt to cross the entry waypoint into Kabul FIR within the 5-minute window after the Calculated Time Over (CTO) specified by BOBCAT Slot Allocation (CTO+5).**

Departures Punctuality (CTOT Compliance)

2.20 Prior to this round of Post-Operational Analysis, the major cause of flights not being able to enter Kabul FIR at the allocated flight levels was due to departure punctuality with respect to CTOT. The analysis on departure punctuality continues to be carried out for July 2016 - June 2018 in

accordance to Action Item BBACG-20/3 (updated in SAIOACG/5 and transferred to ATFM/SG), with summary shown in **Figure 8**.

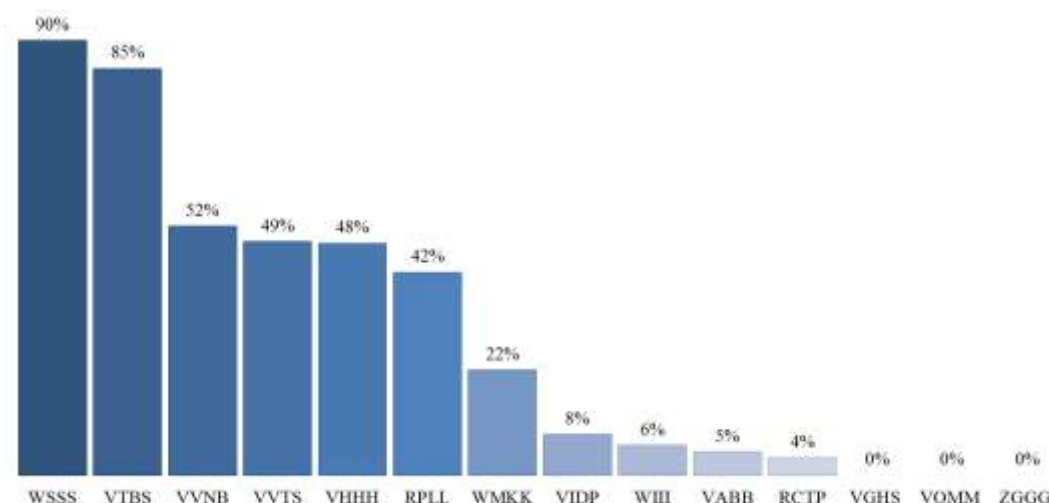


Figure 8: Average CTOT Compliance: July 2016 - June 2018

2.21 It should be noted that departure compliance at various airports can still be improved. However, for airports with less amount of traffic, CTOT adherence responsibility may fall on aircraft operators.

Afghanistan Airspace Entry Compliance

2.22 The meeting would recall that BOBCAT Slot Allocation is generated on the basis that flights are expected to enter Afghanistan airspace at the specified entry waypoints within the window of 5 minutes after Calculated Time Over (CTO).

2.23 **Figure 9** shows this result from the traffic sample data provided in the period of July 2016 - June 2018. The data shows a low 35% CTO compliance rate, despite high percentage of CTOT compliance rate at top departure airports (**Figure 8**). This indicates that actual flight time still differs significantly from planned EET in the FPLs, which may be due to factors such as weather variations, tactical ATC, or variances on flight performance. It also indicates that the current CTO compliance window should not be further reduced. Further information on list of flights not complying to CTO window can be provided on request.

2.24 It should also be noted, however, that despite low CTO compliance rate, a majority of flights are still able to achieve the same or better flight levels compared to those allocated by BOBCAT system; as shown in **Figure 6**.

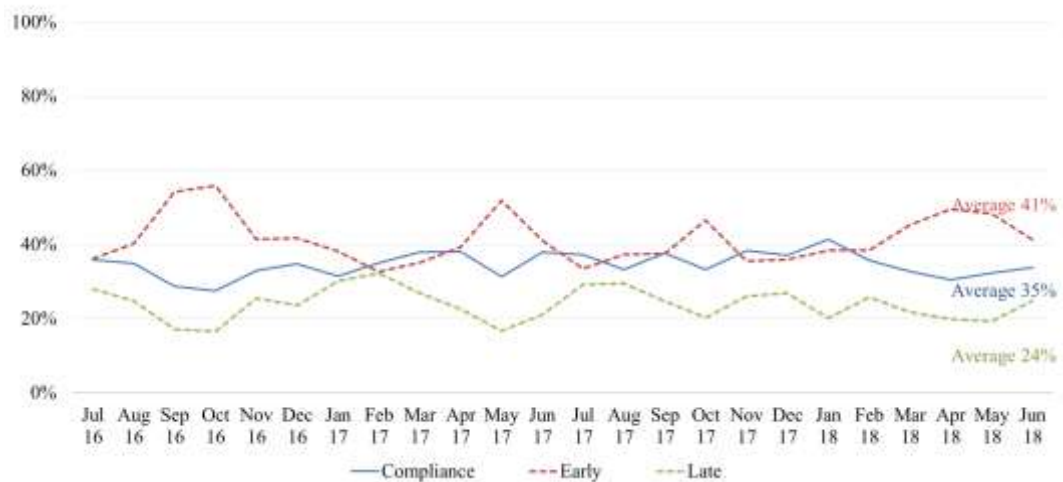


Figure 9: Afghanistan Airspace Entry Compliance: July 2016 – June 2018

2.25 Further study correlating CTOT Compliance and CTO Compliance was carried out using Traffic Sample Data from January – June 2018. **Figure 10** summarizes CTOT and CTO Compliance from Traffic Sample Data in the six-month period.

CTOT \ CTO Compliance	Overall	Early Entry	Compliance	Late Entry
Early Take-Off	13%	92%	8%	0%
Compliance Take-Off	75%	44%	43%	13%
Late Take-Off	2%	0%	17%	83%
No DEP Received	11%	32%	32%	36%

Figure 10: Correlation of CTOT Compliance and CTO Compliance: January – June 2018

2.26 It can be observed from Figure 10 that aircraft that departed early outside CTOT window are likely to enter Afghanistan airspace earlier than CTO window. Similarly, aircraft that departed late outside CTOT window are likely to enter Afghanistan airspace later than CTO window.

2.27 A significant finding from the study indicates that, while 75% of flights in the Traffic Sample Data departed within CTOT window, only 43% of those flights enter Afghanistan within CTO window. Significant portion of flights departed within CTOT window but entered Afghanistan earlier than CTO window.

2.28 Further investigation was carried out as CTOT window was constructed with the assumption that flights are capable to speed up or slow down at the rate of one minute per flight hour. Therefore, further study correlating CTOT Compliant flight and CTO Compliance performance is carried out with result summarized in **Figure 11**.

CTOT \ CTO Compliance	Overall	Early Entry	Compliance	Late Entry
CTOT Compliant – expected to slow down	44%	73%	26%	1%
CTOT Compliant – no speed modification needed	46%	25%	60%	14%
CTOT Compliant – expected to speed up	10%	2%	38%	60%

Figure 11: CTOT Compliant Flights and CTO Compliance Correlation: January – June 2018

2.29 **Figure 11** indicated that flights that departed within CTOT window with expectation to slow down were largely unsuccessful in slowing down. Similarly, flights expected to speed up to ensure compliance with CTO window are also largely unsuccessful in speeding up. In addition, it is noted that significant portion of CTOT compliant flights (25%) ended up entering Afghanistan airspace earlier than CTO window. This situation may be due to short-cuts obtained in flight.

2.30 Correlation of CTOT Compliance with percentage of flights entering Afghanistan in accordance to slot allocation flight level is summarized in **Figure 12**.

CTOT Compliance		Entry at Same or Better FL Compared to Slot Allocation
Early Take-Off		84%
Compliant Take-Off		90%
Late Take-Off		75%

Figure 12: Correlation of CTOT Compliance and Percentage of Flights Entering Afghanistan Airspace at Same of Higher Preferred Flight Level Compared to Slot Allocation: January – June 2018

2.31 **Figure 12** indicated that CTOT compliant flight is most likely to enter Afghanistan at same or higher preferred flight level. Meanwhile, 25 percent of flights taking off after CTOT window would enter Afghanistan airspace at lower flight level compared to slot allocation. Meanwhile, 16 percent of flights taking off earlier than CTOT window would enter Afghanistan airspace at lower flight level compared to slot allocation.

2.32 In response to ATFM/SG Action Item 6/2 requesting Thailand to provide detailed list of non-compliance with BOBCAT entry times (CTO Compliance), fully analysed traffic sample data for the months of July 2016 – June 2018 can be downloaded from < <http://tinyurl.com/bobcat-analysis-2018-06> >.

ATFM Delay

2.33 Another figure of merit continuously monitored by Bangkok ATFMU is the ATFM delay due to Afghanistan airspace constraint as assigned by BOBCAT system. The analysis result on ATFM delay for the reference period of July 2016 - June 2018 is shown in **Figure 13**.



Figure 13: ATFM delay: July 2016 - June 2018

New Perth – London Flight Operations

2.34 In coordination with Qantas Airways, Bangkok ATFMU is aware of new planned Perth – London flight, which Qantas expects to start operation in March 2018. The daily flight has Estimated Off-Block Time (EOBT) of around 1050UTC and expect to enter Afghanistan airspace between 2000 – 2059UTC at FL380, during BOBCAT operational hours. Nevertheless, Qantas expects that not all their Perth – London flights would operate through Afghanistan airspace.

2.35 Timing of the new Perth – London flight presents challenge to BOBCAT operations as the cutoff-time for initial slot allocation is currently set at 1200UTC, which would be at least one hour after the Perth – London flight taking off from Perth.

2.36 Therefore, two possible BOBCAT operational models are considered to accommodate the Perth – London flight operations:

- (1) **Change BOBCAT Cutoff-Time** – to around 0850UTC, which would be around 2 hours prior to EOBT of Perth – London flight. This option puts all flights operating through Afghanistan airspace on level playing field in competition for BOBCAT slot allocation; and,
- (2) **Exempt Perth – London Flight** from BOBCAT Slot Allocation, requiring Qantas to submit and amend BOBCAT slot request to mirror actual take-off time prior to BOBCAT Cutoff-Time of 1200UTC; BOBCAT system can be configured to allocate slot to Perth – London flight as per slot request with no delay.

2.37 It should be noted that change of BOBCAT Cutoff-Time would affect all stakeholders in BOBCAT operation, while the Perth – London flight may not enter Afghanistan airspace daily.

2.38 In addition, study of BOBCAT slot allocation for the past year indicate that on a typical day, it is expected that at most one flight has BOBCAT slot allocation entering Afghanistan airspace between 2000 – 2059UTC using four ATS routes available at FL380. Therefore, there is a very low probability that exempting Perth – London flight from slot allocation process would affect another aircraft in current BOBCAT slot allocation process.

2.39 As such, Bangkok ATFMU has been coordinating with ICAO Asia-Pacific Regional Office and IATA Asia-Pacific Regional Office to find a collaborative solution on how the Perth – London flight can be accommodated.

2.40 Discussion at recent IATA Asia-Pacific Regional Coordination Group (RCG) on 21 March 2018 indicates that IATA member airlines prefer to accommodate Perth – London flight by exempting the flight from current BOBCAT slot allocation. It is expected that this accommodation will be done on a trial basis with impact on other flights to be reviewed in next IATA RCG meeting in September 2018.

2.41 The meeting is further advised that since initial operation of the Perth – London flight on Saturday, 24 March 2018 up to Tuesday, 17 July 2018, all but two Perth – London flights have operated outside Afghanistan airspace, posing no impact to other flights. Instead of operating through Afghanistan, Perth – London flights have been operating to London via route structure in Iranian airspace. The only cases when the Perth – London flight operated through Afghanistan took place on Sunday 15 July 2018 – Monday 16 July 2018. The flight obtained slot allocation to enter Afghanistan airspace through waypoint ASLUM (P628) at FL380. Analysis of slot allocation on those days indicates that the Perth – London flight did not adversely impact other flights. Further coordination with Qantas indicates that they expect approximately 20 percent of Perth – London flights to operate through Afghanistan airspace with operations affected by seasonal wind pattern.

Uzbekistan Radar Outage

2.42 In the late December 2017, Samarkand ACC (Uzbekistan) had released a NOTAM notifying the unserviceability of SSR within Samarkand FIR and requiring a 10-minute longitudinal separation on flights passing from Kabul FIR into Samarkand FIR via AMDAR - TRZ (ATS route M875) through March 2018. The NOTAM, D0629/17 released on 22 December 2017, prompted Kabul ACC to release a follow on NOTAM requiring 10-minute longitudinal separation at TAPIS (ATS routes M875 and L509). These NOTAMs are shown below.

// NOTAM by KABUL ACC //

G0238/18 NOTAMN

Q) OAKX/QARLT/IV/NBO/E/000/999/

A) OAKX B) 1802030900 C) 1803312359

E) DUE TO RESTRICTIONS WITHIN TERMEZ FIR ALL AIRCRAFT ENTERING KABUL FIR VIA L509 OR M875 AT SAME FLIGHT LEVELS ARE REQUIRED 10 MINUTES LONGITUDINAL SEPARATION, STEADY OR INCREASING, AT TAPIS.

// NOTAM by SAMARKAND ACC //

D0613/17 NOTAMN

Q) UTSD/QCSAS/I /B /E /000/999/3717N06719E200

A) UTSD B) 1712200000 C) 1803012359

E) SSR U/S.

D0629/17 NOTAMN

Q) UTSD/QAECH/IV/NBO/E/000/999/3906N06612E999

A) UTSD B) 1712220842 C) 1803012359

E) RADAR CONTROL IS NOT AVBL ON SEGMENT OF ROUTES:

A466 AMDAR-TRZ-HA

A66 TRZ-TOBOT

A114 TRZ-OKBAB

B165 TRZ-KEKAD.

10 MINUTES LONGITUDENAL SEPARATION WILL BE PROVIDED.

2.43 Resultant from Kabul ACC's NOTAM, Thailand re-configured the BOBCAT system parameters to increase the spacing between two consecutive flights entering Kabul FIR from 7 minutes (approximately 50NM) to 10 minutes (procedural separation). With the built-in buffer time of 5 minutes, the spacing parameter was increased from conventionally 12 minutes to 15 minutes at waypoints LAJAK (L509) and SITAX (M875). These changes have been in effect since 23 December 2017 until now.

2.44 To assess the impact of these restrictions on flight operations, Thailand has conducted post-operations analysis focusing on airlines' routing option and ATFM delays using BOBCAT traffic data during January 2016 - January 2018. The analysis was done based on 2 assumptions:

- That, due to increased spacing requirements, ATFM delays on L509 and M875 will increase disproportionately when compared to the associated traffic demand; and
- That, due to increased ATFM delays, airlines will choose not to fly via L509 and M875 if possible.

2.45 The analysis was done by comparing traffic during the periods before and after the increased spacing requirement came into effect. In particular, the analysis focused on comparing BOBCAT traffic during December 2016 / January 2017 (before radar outage) with that during December 2017 / January 2018 (during radar outage). To ensure completeness, the analysis was done at both the monthly level and weekly level, focusing on Christmas and New Year weeks. Tables summarizing the analysis are shown in subsequent paragraphs. To ensure common understanding, the following timing nomenclatures are used:

- X'Mas '16 refers to week of 25 - 31 Dec 2016
- X'Mas '17 refers to week of 24 – 30 Dec 2017
- NY '16/'17 refers to week of 1 – 7 Jan 2017
- NY '17/'18 refers to week of 31 Dec 2016 – 6 Jan 2017
- Dec '16 / Dec'17 refers to full month data in December
- Jan '17 / Jan '18 refers to full month data in January

2.46 Table below shows comparison of traffic demand count and ATFM delay statistics (average and total) on L509 / M875 and other routes for the focused periods.

ROUTE	PARAMETERS	Dec-16	Dec-17	Relative	XMAS 16	XMAS 17	Relative	NY 16/17	NY 17/18	Relative	Jan-17	Jan-18	Relative
L509 / M875 (LAJAK/SITAX)	FLT	389	500	28.5%	88	110	25.0%	132	118	-10.6%	552	489	-11.4%
	AVG DLA	0.864	1.664	92.6%	1.443	2.427	68.2%	2.167	2.653	22.4%	1.73	1.812	4.7%
	TOTAL DLA	336	832	147.6%	127	267	110.2%	286	313	9.4%	955	886	-7.2%
OTHER ROUTES	FLT	866	882	1.8%	162	174	7.4%	144	160	11.1%	746	806	8.0%
	AVG DLA	1.484	1.66	11.9%	0.926	1.006	8.6%	1.708	1.269	-25.7%	1.595	1.435	-10.0%
	TOTAL DLA	1285	1464	13.9%	150	175	16.7%	246	203	-17.5%	1190	1157	-2.8%
ALL ROUTES	FLT	1255	1382	10.1%	250	284	13.6%	276	278	0.7%	1298	1295	-0.2%
	AVG DLA	1.292	1.661	28.6%	1.108	1.556	40.4%	1.928	1.856	-3.7%	1.653	1.578	-4.5%
	TOTAL DLA	1621	2296	41.8%	277	442	59.6%	532	516	-3.0%	2145	2043	-4.8%

2.47 From the table, the following analysis can be deduced:

- The comparison of Christmas weeks (X'Mas'16 vs. X'Mas'17) does not yield conclusive result, as average ATFM delays increased proportionately to the increased traffic demand on all routes.
- The comparison of New Year weeks (NY'16 vs. NY'17), on the other hand, yields more conclusive result. **Traffic demand on L509/M875 routes during NY'17 has decreased by 10.6%** comparing to the same week in 2016 (NY'16), but **the average ATFM delay has increased by 22.4%**. Other routes, in comparison, saw increased traffic demand (+11.1%) but decreased average ATFM delay (-25.7%).
- A similar comparison for full-month data between January 2018 and January 2017 yields similarly conclusive result. January 2018 saw **a decreased traffic demand (-11.4%) on L509/M875 but with increased average ATFM delay (+4.7%)**. Other route, during the same period, saw increased traffic demand (+8.0%) with decreased average ATFM delay (-10.0%).

2.48 Another analysis done was on airlines' routing option, with the table below showing comparisons between traffic flying on L509, M875, and other routes through Kabul FIR.

ROUTE	% OF FLIGHTS	Dec-16	Dec-17	Relative	XMAS 16	XMAS 17	Relative	NY 16/17	NY 17/18	Relative	Jan-17	Jan-18	Relative
L509 (LAJAK)	% FLT	24.22%	29.02%	4.80%	28.00%	31.69%	3.69%	40.94%	34.53%	-6.41%	36.75%	30.12%	-6.63%
M875 (SITAX)	% FLT	7.16%	6.77%	-0.39%	7.20%	7.04%	-0.16%	6.88%	7.91%	1.03%	5.78%	7.64%	1.86%
OTHER ROUTES	% FLT	68.62%	64.21%	-4.41%	64.80%	61.27%	-3.53%	52.18%	57.56%	5.38%	57.47%	62.24%	4.77%

2.49 From the table, the following analysis can be deduced:

- The comparison of December traffic (Dec'16 vs. Dec'17) and Christmas weeks (X'Mas'16 vs. X'Mas'17) shows an increasing traffic demand on L509 and a steady demand on M875. At first glance, it would seem that airlines were not yet deterred by the increasing ATFM delays on L509 following widened spacing requirement.
- The comparison of New Year weeks (NY'16/'17 vs. NY'17/'18) and January traffic (Jan'17 vs. Jan'18), however, saw **approximately 6.5% drop in traffic on L509 after the widened spacing requirement came into effect**. This could be considered abnormal given overall traffic demand increase on other routes. Barring weather and other effects, that airlines began to steer away from impacted routes could be one explanation to the reduction.

2.50 Turning back to the assumptions made prior to the analysis (para. 2.25), it would seem that the radar outage and increased spacing requirement (10 minutes-in-trail at TAPIS) did impact flights operating through Kabul FIR on L509 / M875 routes with increased average ATFM delay. **With increased average ATFM delay, airlines could thus be deterred from using the routes as shown from the data. The result shows direct impact spacing restrictions can have on the efficiency of flight operations.**

2.51 Noting the impact to flight operations, Thailand had been proactively monitoring the situation to ensure an up-to-date awareness regarding the radar outage situation, and had re-configured BOBCAT system back to normal (7+5 minutes spacing at Kabul FIR entry waypoints) since 23 February 2018.

2.52 Learning from the experience, Thailand would like to urge States to give due regards to flight operations impact when implementing airspace restrictions. Seemingly insignificant added restrictions can have significant impact on flights upstream, and insofar as possible, stakeholder engagement should be exercised prior to such activation.

3 ACTION BY THE MEETING

3.3 The meeting is invited to:

- a) note the data collated by the Bangkok ATFMU;
- b) discuss data collection results; and,
- c) discuss any relevant matters as appropriate.

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