

ENR 1.9 AIR TRAFFIC FLOW MANAGEMENT (ATFM)

1 INTRODUCTION

- 1.1 The States of the ICAO Asia/Pacific Region within the Bay of Bengal, South Asia and Pakistan airspace have implemented an automated Air Traffic flow Management (ATFM) service under the auspices of the ICAO Bay of Bengal ATS Coordination Group – ATFM Task Force.

2 PROVISION OF ATFM SERVICES

- 2.1 ATFM services are provided by Aeronautical Radio of Thailand LTD (AEROTHAI) from the Bangkok Air Traffic Flow Management Unit (ATFMU) at Bangkok ACC. ATFM services will be limited to calculation, promulgation and management of mandatory Allocated Wheels Up Time (AWUT) and Kabul FIR flight level, ATS route and entry fix time for each affected flight.
- 2.2 Hong Kong ATC retains responsibility for the tactical management of flights that are subject to ATFM. In discharging tactical responsibilities, Non-ATFM compliant flight may be delayed by using delayed pushback and start clearances, non-preferred routes and/or flight levels and/or enroute holding.
- 2.3 The ATFMU utilises the automated web based Bay of Bengal Cooperative ATFM System (BOBCAT) system in meeting its ATFM responsibilities. These responsibilities will be managed in coordination with aircraft operators and Singapore ATC in the Singapore FIR.
- 2.4 The ATFMU operates on a 24-hour basis and is responsible for westbound flights entering the Kabul FIR at specified times, flight levels and ATS routes in accordance with paragraph 3. The objectives of these ATFM services are to :
- a) reduced ground and en-route delays;
 - b) maximise capacity and optimize the flow of air traffic within the area;
 - c) provide an informed choice of routing and flight level selection;
 - d) alleviate unplanned in-flight re-routing and technical stops; and
 - e) assist regional Air Navigation Service Providers (ANSPs) in planning for and managing future workload in the light of forecast increased traffic flows within the area.

3 ATFM AFFECTED ATS ROUTES, FLIGHT LEVELS AND APPLICABLE HOURS

3.1 All westbound flights intending to enter Kabul FIR between 2000UTC and 2359UTC daily on ATS routes :

- (a) A466, L750, N644 from FL280 to FL390 inclusive;
- (b) G792/V390 from FL310 to FL390 inclusive; and
- (c) B466 between SERKA and PAROD from FL310 to FL390 inclusive,

shall comply with ATFM procedures including mandatory requirement to obtain ATFM slot allocation from Bangkok ATFMU.

3.2 Flights who plan to enter Kabul FIR without an AWUT and entry slot (comprising flight level, ATS route and entry fix time) will be accommodated only after flights with slots have been processed. Such flights should expect delayed pushback and start clearances, non-preferred routes and/or flight levels, enroute holding and/or diversion around Kabul FIR.

3.3 In order to ensure availability of slots for westbound departures from designated airports in northern India and Pakistan, departures from these airports are given priority for FL280 in the slot allocation. This does not preclude these flights from requesting higher flight levels with initial slot request.

4 FLIGHTS EXEMPTED FROM BOBCAT ATFM

4.1 The following flights are exempted from the ATFM procedures :

- a) Humanitarian or medical flights; or
- b) State aircraft with Head of State on board.

4.2 Flights exempted from ATFM procedures shall indicate the exemption in their flight plan as follows:
(Field 18 – STS/ATFMX).

4.3 Hong Kong AIS shall forward the flight plan information to the ATFMU at AFTN address VTBBZDZX.

5 MANDATORY AWUT AND KABUL FIR SLOT ALLOCATION

- 5.1 Affected flights shall obtain the mandatory AWUT, Kabul FIR entry time, flight level and ATS route from the BOBCAT system. The AWUT and Kabul slot allocation will enable ANSPs to tactically control westbound flights transiting the Kabul FIR at specified times by assigning minimum spacing requirements at established gateway fix points in the vicinity of the eastern boundary of the Kabul FIR.
- 5.2 The application, calculation and distribution of AWUT and Kabul FIR entry fix slot allocations will be managed via internet access to the BOBCAT system in accordance with the ATFM operating procedures in paragraph 6.

6 BOBCAT OPERATING PROCEDURES

- 6.1 All affected flights are required to submit their slot requests to the BOBCAT system by logging onto <https://www.bobcat.aero> between 0001UTC and 1200UTC on the day of flight and completing the electronic templates provided.
- 6.2 Affected aircraft operators who do not have dedicated BOBCAT username/password access should complete the application form provided and fax it to the ATFMU as soon as possible.

6.3 Slot Allocation Process

- 6.3.1 The slot allocation process is divided into 3 phases, namely the slot request submission, initial slot allocation and finally the slot distribution to aircraft operators and ANSPs.

Slot Request Submission

- 6.3.2 Slot requests including preferred ATS route, flight level and Maximum Acceptable Delay (MAD) should be lodged between 0001UTC and 1200UTC on the day of flight. Slot requests may subsequently be amended prior to 1200UTC, which is the cut-off time. Aircraft operators are encouraged to submit additional slot request options in case their first choice is not available. This may include variations to ATS route, flight level and MAD.

6.3.3 Slot requests shall be for flight parameters that are able to be met by the flight. For example, flights requesting a slot at FL390 must be able to transit Kabul FIR at FL390. Flights subsequently unable to meet slot parameters (flight level, ATS route or entry fix time) should expect non-preferred routes and/or flight levels, enroute holding and/or diversion around Kabul FIR.

6.3.4 Flights that were not allocated a slot in the initial slot allocation, are not satisfied with the allocated slot or did not submit a slot request should select slots from the listing of remaining unallocated slots available immediately after slot distribution has been completed.

Slot Allocation and Distribution

6.3.5 Slot allocation will commence at the cut-off time at 1200UTC. BOBCAT will process and generate the slot allocation based on the information submitted in the slot requests. Notification of slot allocation will be made not later than 1230UTC via the ATFMU website. Alternative arrangement for notification of slot distribution (e.g. e-mail, fax, telephone) should be coordinated with the ATFMU.

6.3.6 After the slot allocation has been published at <https://www.bobcat.aero>, aircraft operators can :

- a) use the slot allocation result for ATS flight planning purposes;
- b) cancel the allocated slot; and
- c) change slot allocation to another available slot in the published list of unallocated slots.

6.3.7 Hong Kong ATC and AIS can also view the slot allocation results at <https://www.bobcat.aero>.

6.4 SUBMISSION OF ATS FLIGHT PLAN

- 6.4.1 Once aircraft operators are in receipt of the slot allocation, they shall submit the ATS flight plan using the time, ATS route and flight level parameters of the BOBCAT allocated slot.
- 6.4.2 In addition to the normal addressees, Hong Kong AIS will also address the flight plan (FPL) and related ATS messages (e.g. DLA, CNL, CHG) to the ATFMU via AFTN address VTBBZDZX for all flights that have submitted a slot request.

7. AIRCRAFT OPERATOR / PILOT-IN-COMMAND AND ANSP RESPONSIBILITIES

Aircraft Operator / Pilot-in-Command

- 7.1 In accordance with ICAO PANS-ATM provisions, it is the responsibility of the Pilot-in-Command (PIC) and the aircraft operator to ensure that the aircraft is ready to taxi in time to meet any required departure time. PIC shall be kept informed by their aircraft operators of the Allocated Wheels Up Time (AWUT), Kabul FIR entry fix times and flight parameters (route/level) nominated by BOBCAT.
- 7.2 The PIC, in collaboration with ATC, shall arrange take-off as close as possible to the AWUT in order to meet the Kabul FIR slot time.

ANSPs

- 7.3 In accordance with ICAO PANS-ATM provisions, flights with an ATFM slot allocation should be given priority for take-off to facilitate compliance with AWUT.
- 7.4 AWUT shall be included as part of the initial ATC clearance. In collaboration with PIC, Hong Kong ATC shall ensure that every opportunity and assistance is granted to a flight to meet AWUT and allocated entry fix time at Kabul FIR.

8. COORDINATION BETWEEN AIRCRAFT OPERATOR / PILOT-IN-COMMAND, ANSPS AND BANGKOK ATFMU

- 8.1 The PIC shall include the AWUT in the initial ATC clearance request.
- 8.2 PIC shall adjust cruise flight to comply with slot parameters at the Kabul FIR entry fix, requesting appropriate ATC clearances including speed variations in accordance with published AIP requirements.
- 8.3 Prior to departure, in circumstances where it becomes obvious that the Kabul slot time will not be met, a new slot allocation should be obtained as soon as possible and via the most expeditious means (e.g. via coordination between flight dispatcher, PIC, Hong Kong ATC and Bangkok ATFMU). Early advice that the Kabul slot time will be missed also enables the slots so vacated to be efficiently reassigned to other flights.
- 8.4 Prior to departure, in the event that the aircraft is unable to meet the Kabul slot time, when requested by the PIC after the aircraft has left the gate, Hong Kong ATC shall assist the PIC to coordinate with the ATFMU for a revised slot allocation.
- 8.5 The ATFMU (VTBBZDZX) shall be included in the list of AFTN addressees for NOTAMs regarding any planned activities that may affect slot availability (e.g. reservation of airspace/closure of airspace, non-availability of routes, etc.).
- 8.6 The ATFMU (VTBBZDZX) shall be included in the list of AFTN addressees for ATS messages (e.g. FPL, DEP, DLA, CHG, CNL) relating to flights subject to ATFM procedures.
- 8.7 A missed slot results in dramatically increased coordination workload for ATC and PIC and should be avoided. To minimize coordination workload in obtaining a revised slot allocation, the following procedures are recommended :
- a) If the flight is still at the gate, coordination should take place via aircraft operators / flight dispatchers to ATFMU;
 - b) If the flight has left the gate, coordination to ATFMU may also take place via the ATS unit presently communicating with the flight.

9 BASIC COMPUTER REQUIREMENT

- 9.1 Aircraft operators are required to have computer equipment capable of connecting to the BOBCAT website <https://www.bobcat.aero> via the internet and satisfying the following minimum technical requirements :

A personal computer of any operating system with the following characteristics :

- i) Processor : minimum CPU clock speed of 150MHz;
- ii) Operating System : any that operates one of the following web browsers (i.e. Windows 2000 / XP, Linux, Unix, or Mac OS);
- iii) Web Browser : Internet Explorer 5.5 or newer, Mozilla 1.0 or newer, Mozilla Firefox 1.0 or newer, Netscape 7 or newer;
- iv) RAM : 64MB or larger (depending on operating system);
- v) Hard Disk Space : minimum of 500MB or larger (depending on operating system);
- vi) Monitor Display Resolution : minimum of 800 x 600 pixels; and
- vii) Internet Connection : 56Kbps modem or faster.

10 ATFM USERS HANDBOOK

- 10.1 Supporting documentation, including detailed information in respect of the ATFM operations described above and other pertinent information has been included in the Bay of Bengal and South Asia ATFM Handbook (the "ATFM Users Handbook"), available at <https://www.bobcat.aero>
- 10.2 ANSPs and aircraft operators shall ensure that they are conversant with and able to apply the relevant procedures described in the ATFM Users Handbook.

11 CONTINGENCY PROCEDURE

- 11.1 In the event that an aircraft operator or Hong Kong ATC is unable to access the ATFMU website, the ATFMU shall be contacted via an alternative means (telephone, fax, AFTN) described in paragraph 13.
- 11.2 Contingency procedures for submission of slot request, including activation of Contingency Slot Request Templates (CSRT) are included in the ATFM Users Handbook.

- 11.3 In the event of system failure of BOBCAT, ATFMU shall notify all parties concerned and advise that ATFM slot allocation procedures are suspended. In this event, all parties concerned will revert to the existing ATM procedures as applicable outside the daily period of ATFM metering.

12 ATFM SYSTEM FAULT REPORTING

- 12.1 An ATFM system fault is defined as a significant occurrence affecting an ATS unit, an aircraft operator or ATFMU resulting from the application of ATFM procedures.
- 12.2 Aircraft operators experiencing an ATFM system fault should complete an ATFM System Fault Report Form from the ATFM Users Handbook and forward it to the ATFMU at the address indicated on the form. The ATFMU will analyze all reports, make recommendations / suggestions as appropriate and provide feedback to the parties concerned to enable remedial action.

13 ADDRESS OF AIR TRAFFIC FLOW MANAGEMENT UNIT (ATFMU)

- 13.1 The ATFMU may be contacted as follows :

Unit Name	:	Bangkok ATFMU
Telephone	:	+66-2-287-8024, +66-2-287-8025
Fax	:	+66-2-287-8027
Tel/Fax	:	+66-2-287-8026
E-mail	:	atfm@bobcat.aero
AFTN	:	VTBBZDZX
Website	:	https://www.bobcat.aero