
AIC

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DISTRIBUTED MULTI-NODAL ATFM OPERATIONAL TRIAL

1 GENERAL

1.1 Purpose

1.1.1 The purpose of this Aeronautical Information Circular (AIC) is to advise the aviation community of the commencement of the Distributed Multi-Nodal Air Traffic Flow Management (ATFM) Operational Trial on the **29 June 2015**.

1.2 Introduction

1.2.1 Asia Pacific has recognized the need for ATFM to work towards balancing Capacity and Demand in the Region and many States have, or are planning to, implement Domestic ATFM.

1.2.2 There is now an urgent requirement to structure and link the various ATFM systems on a sub-regional basis and provide structured collaborative information sharing across borders to assist operational decision making processes for airlines, airports and ANSPs. Given that a Central ATFM Unit would not be possible in Asia Pacific, the Distributed Multi-Nodal ATFM concept was developed to provide a solution to Cross-Border ATFM for the region and was accepted by States and ICAO as the Regional Concept of Operations.

1.2.3 The Distributed Multi-Nodal ATFM Operational Trial is conducted to validate the concept for Cross-Border ATFM operations in the region. The concept is based on the model developed through collaborative research project led by Civil Aviation Authority of Singapore (CAAS) and Airbus ProSky with inputs from other ANSPs and stakeholders. The ATFM Operational Trial will provide platform to validate relevant operational concepts in order to eventually establish Regional Cross-Border ATFM accommodating all flights.

2 CONCEPT

2.1 The Distributed Multi-Nodal ATFM Network concept involves each *ANSP leading and operating an independent, virtual ATFM/CDM node supported by interconnected information sharing framework*. Air traffic flow is then managed based on a common set of agreed principles among participating stakeholders. The basis for demand-capacity balancing in this concept is the *Calculated Take-Off Time (CTOT)* back-calculated from Calculated Landing Time (CLDT). *Collaborative Decision Making (CDM)* process enables airspace users and airport operators to collaborate with ANSPs in the implementation of ATFM measures for maximum operational efficiency. The ANSPs involved are CAAC ATMB (China), Hong Kong CAD (Hong Kong China), CAAS (Singapore), and AEROTHAI (Thailand).

2.2 DCA Malaysia is participating in the trial as level 2 ANSP whereby the role is to support the management of departures in accordance to CTOT issued by the aforementioned ANSPs.

2.3 The following airports in Malaysia will be involved in the ATFM Operational Trial by way of receiving and facilitate affected airlines' compliance of CTOT;

- Kuala Lumpur (KUL/WMKK)
- Kota Kinabalu (BKI/WBKK)
- Kuching (KCH/WBGG)
- Langkawi (LGK/WMKL)
- Ipoh (IPH/WMKI)
- Subang (SZB/WMSA)
- Johor (JHR/WMKJ)
- Terengganu (TGG/WMKN)
- Kota Bharu (KBR/WMKC)
- Miri (MYY/WBGR)
- Pulau Pinang (PEN/WMKP)

2.4 Operational Trial Timeline

2.4.1 The Operational Trial has commenced on June 29, 2015 and initially consisting of various tests to validate processes and procedures:

- **Phase 1: Distributed ATFM for Airport Arrival Constraints**

(June 2015 – June 2016)

- i. *Stage 1* – CTOT Communications (June – September 2015)
- ii. *Stage 2* – CTOT Adherence (October 2015 – January 2016)
- iii. *Stage 3* – Advanced CTOT Management (February – June 2016)

- **Phase 2: Advanced Distributed ATFM**

2.4.2 Stage 1 CTOT Communications Operational Trial (June – September 2015) involve testing of CTOT communication framework without affecting live flights. After successful completion of Stage 1, the ATFM Operational Trial Stage 2 will start affecting actual flights.

2.5 Airspace Users Requirements

2.5.1 **With effect from 1 August 2015 0001UTC**, in support of this initiative it is recommended that all airspace users **file FPLs at least 3 hours before EOBT** to assist the ATFMU receive accurate demand data. Further, **submitting CHG/DLA messages when EOBT changes by more than 15 minutes** would further enhance traffic demand prediction accuracy.

2.5.2 Airspace users will be required later during the trial to depart according to their CTOT.

2.6 Further Information

2.6.1 Further information can be found in the Stage 1 Awareness Document available at <http://www.dca.gov.my>, and any enquiries with respect to the trial shall be made to Mr. Chew Lam Leong, or Mr Md Nastain Mahazur at Air Traffic Management Sector, Department of Civil Aviation, Level 4, Block Podium B, Lot 4G4, Precinct 4, Federal Government Administration Centre, 62618, PUTRAJAYA, or the DCA Manager of the respective Airports.

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