



International Civil Aviation Organization

The Sixth Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/6)

Bangkok, Thailand, 06 – 10 June 2016

Agenda Item 4: Review of Current CDM/ATFM Operations and Problem Areas

SUBMISSION OF FLIGHT PLANS AND TRANSMISSION OF ATS MESSAGES FOR EFFECTIVE ATFM SERVICES

(Presented by Australia, China, Hong Kong China, Singapore, Thailand, CANSO and IATA)

SUMMARY

This paper presents the importance of timely submissions of flight plans and transmission of ATS messages to support an effective Air Traffic Flow Management services.

1. INTRODUCTION

1.1 In anticipation of the growth in air traffic demand in the Asia Pacific region, one of the proposed concepts to manage demand and capacity was the Distributed Multi-Nodal ATFM Network. The Distributed Multi-Nodal ATFM operational trial, which started in June 2015, has helped to validate this concept and is currently progressing towards the provision of limited scope ATFM services with the active involvement of ANSPs, Airport Operators and Airspace Users.

1.2 In order to ensure that ATFM can balance demand and capacity effectively, up-to-date flight information is required to anticipate the traffic demand. Air traffic demand can be determined from sources such as airport flight schedules/slots, flight plans submitted by operators, and ATS messages through the Aeronautical Fixed Telecommunication Network (AFTN).

1.3 The submission of timely flight plans together with ATS messages such as DLA, CNL, CHG and DEP helps ensure accuracy in demand prediction. This also allows ATFM units to derive an effective ATFM measure when required. The transmission of DEP messages provides ATFM operations with accurate updates of the predicted demand and facilitates the verification of CTOT adherence for the arrival ATFM unit, as well as allowing statistical analysis for post operations review.

2. DISCUSSION

Timely Submission of flights plans

2.1 ICAO Doc 4444 stipulates that flight plan submissions shall not be more than 120 hours before the estimated off-block time (EOBT) of a flight. The accurate prediction in demand for ATFM requires the submission of flight plans. The demand prediction baseline is obtained through either flight schedules or airport slots. However, when using schedules without flight plans, there will be tendency for a slight inaccuracy from flight schedules versus the estimated en-route times in flight plans. The demand prediction accuracy significantly improves with the inclusion of flight plans. Thus, the timely submission of flight plans is crucial to ensure satisfactory demand prediction accuracy.

2.2 Although there is no requirement or minimum time for submission of a flight plan, it is strongly recommended that airspace users file their flight plan at least 3 hours before estimated off block time, which will allow ATFM units to improve pre-tactical planning from the baseline demand prediction.

Importance of DLA messages

2.3 ICAO Doc 4444 outlines the provision for the transmission of DLA messages. DLA messages shall be transmitted when the departure of an aircraft for which FPL has been sent and is delayed by more than 30 minutes after EOBT. These messages impact the demand prediction which is crucial in the operations of ATFM and should be transmitted timely and accurately. Thus, it is strongly urged for DLA messages to be submitted if there is a delay of more than 15 minutes after EOBT from the basic flight plan.

Importance of CNL messages

2.4 CNL messages shall be transmitted when a flight, for which basic flight plan data has been previously distributed, has been cancelled. The submission of CNL messages should also be prompt and timely if cancellation is required. This is to ensure that flights that are cancelled are not reflected in the demand prediction.

Importance of CHG messages

2.5 CHG messages shall be transmitted when a flight, for which basic flight plan data has been previously distributed, has been modified. One key factor in traffic demand prediction is the accurate Estimated Elapsed Time (EET) submitted with FPL. To ensure accurate traffic demand prediction, CHG messages should also be transmitted in a timely manner when changes to flights occur such that the EET differs from original by more than 15 minutes.

Importance of DEP messages

2.6 ICAO Doc 4444 stipulates that a DEP message shall be transmitted immediately after the departure of an aircraft for which basic flight plan data has been previously distributed. DEP message transmissions to all recipients of the basic flight plan data are the responsibility of the ATS unit serving the departure aerodrome. The DEP message helps verify the anticipated demand, verify CTOT adherence and support statistical analysis of the ATFM measures. Therefore the regional States are urged to ensure the timely transmission of DEP messages to facilitate accurate demand predictions and post operations data analysis.

Recommendations

2.7 In view of the above, it is proposed that ATFM/SG consider the following draft conclusion for the subsequent adoption to the Air Traffic Management Sub-Group of APANPIRG.

Draft Conclusion ATFM/SG/6 – Timely submission of FPL and transmission of the relevant ATS messages to support ATFM

Recognizing the importance of the timely submission of flight plans and transmission of the relevant ATS messages to support ATFM, urge States/Administrations to put in place the necessary procedures

- i. for airspace users to submit flight plans at least 3 hours before EOBT
- ii. for airspace users to transmit DLA messages in the event of delay by 15 minutes or more from EOBT

- iii. for airspace users to transmit CHG messages in the event of any changes resulting in Estimated Elapsed Time (EET) changes of 15 minutes or more
- iv. for airspace users to transmit CNL messages promptly when cancellation is required
- v. for ATS Authority of departure aerodrome to transmit a DEP message to all recipients of the basic flight plan data immediately after the departure of an aircraft

2.8 The necessary procedures outlined in the para above can be incorporated into the respective Aeronautical Information Publication of States and Administrations for the compliance of airspace users.

2.9 In summary, the actions taken by the operators in providing accurate, timely and concise information on submission of flight plans and ATS messages will be vital in the smooth operations of ATFM. The anticipated result will facilitate better management of balancing demand and capacity and provide all stakeholders with an enhanced overall situational awareness.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) discuss the importance and requirements of flight plans and ATS messages in relation to the Multi-Nodal ATFM Project and urge the prompt submission by ANSPs and stakeholders;
- c) consider the draft conclusion in para 2.7 to for the adoption of ATM/SG of APANPIRG and if necessary to APANPIRG;
- d) discuss any relevant matters as appropriate.

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