



International Civil Aviation Organization

The Fourth Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/4)

Bangkok, Thailand, 1 – 5 December 2014

Agenda Item 5: Development of Regional ATFM Framework

ATFM INTERFACE WITH AIRPORT CDM

(Presented by the Secretariat)

SUMMARY

This paper discusses the relationship between ATFM and Airport Collaborative Decision-Making, and the harmonization of the interfaces between ATFM and A-CDM systems.

1. INTRODUCTION

1.1 Airport Collaborative Decision-Making (A-CDM) is described in ICAO Doc 9971 – *Manual on Collaborative Air Traffic Flow Management*. A-CDM aims to improve the sharing of information between A-CDM partners and to pre-define procedures and rules for collaboration. It is an enabler for ATFM at airports, reducing delays and improving the predictability of events and optimizing the use of resources.

1.2 ATFM and A-CDM share a range of common flight milestones, requiring a harmonized information exchange model and associated terminology.

2. DISCUSSION

A-CDM Guidance Material

2.1 ATFM/SG/3 considered A-CDM, and the workshops that had been conducted in the Asia/Pacific Region, based on the *EUROCONTROL A-CDM Implementation Manual version 4*, which was developed with inputs from Airports Council International (ACI) and IATA, and appeared to be commonly used and widely accepted by airports and ANSPs as the predominant A-CDM development and implementation guidance.

2.2 The meeting agreed that rather than adopt the manual in its entirety it should be adapted or used as a basis for Regional A-CDM guidance. The ATFM/SG task list update included the research and extraction of appropriate information and guidance from the EUROCONTROL A-CDM Manual to use as guidance material in the Regional ATFM Framework.

2.3 After further coordination by the Secretariat it became apparent that the development of Regional guidance material for A-CDM should more appropriately be conducted by the APANPIRG Aerodrome Operation and Planning Working Group (AOP/WG), with its more detailed understanding of airport operations and greater participation of airport operators and ACI.

2.4 The development of Regional guidance material for A-CDM should also take into account that ACI was developing industry best practice guidance material on the introduction of Airport CDM, in collaboration with CANSO and IATA and intended for worldwide use. The ICAO Aerodrome Design and Operations Panel was expected to formalize an A-CDM task force to prepare global A-CDM guidance based on this material, with the tentative target date for delivery of the draft A-CDM manual, forming Part III of Doc. 9971, on 1 September 2015.

Harmonization of ATFM and A-CDM Terminology

2.5 The key role for ATFM/SG is to ensure harmonization of ATFM and A-CDM concepts and interfaces, to ensure regional interoperability.

2.6 WP/06 proposed an agreed ATFM terminology for the Asia/Pacific Region, including some terms that are shared between ATFM and A-CDM domains (**Table 1**).

Phase of Flight	Scheduled	Flight Plan	Target (Airline)	Target (ANSP)	ATFM Measure	Estimated	Actual
Off-Block Time (OBT)	SOBT	EOBT	TOBT	TSAT	COBT		AOBT
Take-Off Time (TOT)	STOT	PTOT		TTOT	CTOT	ETOT	ATOT
En-Route Elapsed Time (EET)	SEET	EET					
Time Over (TO)					CTO	ETO	
Landing Time (LDT)	SLDT			TLDT	CLDT	ELDT	ALDT
In-Block Time (IBT)	SIBT				CIBT		AIBT

Table 1: Terminology Relevant to ATFM and A-CDM Domains

2.7 Airport CDM stakeholders including airport operators and aircraft operators are also stakeholders in ATFM, and will be participants in ATFM communications through either the proposed web-based information sharing mechanisms or other conventional ATM communications. It is therefore critical that there is a common understanding of terms and agreed information sharing protocols.

2.8 ATFM/SG should coordinate with the AOP/WG to ensure that regional guidance for A-CDM takes into account the terminology developed by ATFM/SG, and the agreed information exchange model.

Variable Taxi Times

2.9 Doc. 9971 notes that at complex airports the layout of runways and parking stands can result in large differences in taxi times. Instead of a standard default value a calculation of the different permutations based upon historical data and operational experience will provide a set of more realistic individual taxi times. A variable taxi time calculation will ensure highly accurate target times for arriving and departing aircraft, improving outcomes of A-CDM and ATFM.

2.10 A study of taxi times from all configurations of arrival runways to all gates/aprons, and from all gates/aprons to runway hold points for all configurations of departure runways, should be conducted at all high density airports, and other airports where warranted by airport capacity limitations or complexity.

Regional ATFM and A-CDM Harmonization

2.11 The following should be included in the Regional Framework for Collaborative ATFM, and coordinated with the AOP/WG to ensure harmonization between ATFM and A-CDM;

- Agreed terminology and definitions to be used in ATFM and A-CDM;
- The ATFM communication items in Attachment A to WP/12;
- The agreed ATFM data exchange model (FIXM); and
- The expectation that States conduct study of taxi times at all high density airports, and other airports where warranted by airport capacity limitations or complexity, and that the results of the study are used in ATFM and A-CDM system data.

3. ACTION BY THE MEETING

The meeting is invited to:

- a) note the information contained in this paper;
- b) note the role of AOP/WG in regional A-CDM developments;
- c) agree to include the items noted in para 2.11 in the Regional Framework for Collaborative ATFM.
- d) discuss any relevant matters as appropriate.

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