



International Civil Aviation Organization

ICAO

Thirteenth Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/13)

Bangkok, Thailand, 03 – 07 April 2023

Agenda Item 5: A-CDM Operations and A-CDM/ATFM Integration

A-CDM IMPLEMENTATION- REGIONAL MONITORING SCHEME

(Presented by Secretariat)

SUMMARY

This paper presents a proposal to develop an annual regional Monitoring and Reporting scheme for the elements of Asia/Pacific A-CDM Implementation Plan.

1. INTRODUCTION

1.1 With gathering pace of Airports Collaborative Decision Making (A-CDM) implementations across the APAC Region Airports, the Aerodrome Operations and Planning Sub-Group recognized that benefits accrue by the implementation of A-CDM at high density aerodromes. States were facing implementation challenges which included lack of guidance materials and awareness, lack of coordination procedures, financial constraints and unavailability of IT supporting systems at the airports, training needs and lack of qualified human resources. Hence formation of a task force for development of guidance material was proposed.

1.2 APANPIRG/27 (September 2016) in Decision 27/2 approved the establishment of Asia/Pacific Airport Collaborative Decision-Making Task Force (APA-CDM/TF). The APA-CDM/TF was formed in 2017. The APA-CDM/TF objective was to assist States to overcome the challenges in A-CDM implementation.

1.3 The APA-CDM/TF focused on reviewing the status of A-CDM implementation in APAC Region, the effectiveness of existing A-CDM programs in the APAC Region and the degree of harmonization with global guidance material. The TF analyzed the ICAO Global A-CDM guidance in Doc 9971 to determine the need for and develop any necessary APAC Regional implementation guidance. The APA-CDM/TF developed the APAC A-CDM Implementation Plan, in July 2021.

2. DISCUSSION

ASBU Elements in APAC A-CDM Implementation Plan

A-CDM

2.1 Airport Collaborative Decision Making (A-CDM) is a concept that aims to improve the efficiency and resilience of airport operations by optimizing the use of resources and improving the predictability of air traffic.

2.2 ACDM-B0/1 Airport CDM Information Sharing (ACIS) - This element represents the first collaboration step among stakeholders involved in aerodrome operations. It consists in the definition of common specific milestones for several flight events taking place during surface operations. The stakeholders involved must, based on accurate operational data, achieve the agreed milestones.

2.3 ACDM-B0/2 - Integration with ATM Network function- This element consists in feeding arrival information from the network into A-CDM and, at the same time, coordinate specific departure milestones. The involved stakeholders must, based on accurate operational data, achieve the agreed milestones.

2.4 ACDM-B1/1- Airport Operations Plan (AOP)- This element consists of a collaborative Airport Operations Plan (AOP) which encompasses “local” airport information and shared information with the ATM network to develop a synchronized view for the integration of local airport operations as well as aircraft operations into the overall ATM network. The AOP includes an airport performance framework and steers with specific performance indicators and targets aligned with the regional/national performance frameworks, building upon ACDM. Information on resources and aircraft operation plans is available to the different operational units on the airport and elsewhere in ATM.

NOPS

2.5 Two Elements within the Thread are addressing the integration of Airports with the Air Traffic Flow Management, in a gradual way, starting with initial airport/ATFM slots and ACDM Network Interface (NOPS-B0/4) followed by the enhanced integration between the Airports Operations Planning and Network Operations Planning (NOPS-B1/3).

2.6 NOPS-B0/4- Initial Airport/ATFM slots and A-CDM Network Interface- This element ensures an initial integration of airports into the ATM network function. The first objective is the A-CDM (Airport Collaborative Decision Making) integration with ATFM via exchanges of specific messages. The second objective is to ensure ATFM slot adherence and limited ATFM slot swapping to meet airline demands in line with capacity declarations. Stakeholders will be able to share relevant airport and flight turnaround information with ATM network function resulting in better predictability and better use of existing capacity whilst considering user preferences and requirements.

2.7 NOPS-B1/3 - Enhanced integration of Airport operations planning with network operations planning -The airport operations plan will contain all data and information related to the different status of planning phases and will be a dynamic/rolling plan, which naturally evolves over time. The integration of airport operations planning within the network operations planning provides a dynamic/rolling picture of the network situation to be used by all operational stakeholders to prepare their plans and their inputs to the network CDM processes. The data exchanges are based on the subset of B2B/SWIM services that are most widely available to all stakeholders, communicating with local airport A-CDM systems to exchange relevant operational information.

Asia Pacific ACDM Implementation Roadmap

2.8 A-CDM-related performance expectations at A-CDM program airports are illustrated in Table 8 of the APAC A-CDM Implementation Plan . It illustrates the mapping between ASBU elements, APAC Seamless ANS Plan elements and Regional Framework for Collaborative ATFM performance expectations.

2.9 It is also noted that the Asia/Pacific Seamless ANS Plan has identified implementation of ACDM-B0/1-2: ACIS (PARS 7.3) as Priority 1 and ACDM-B1/1 – 2: Airport CDM Integration with ATM Network, AOP and APOC (PARS 7.18) as Priority 2.

2.10 However, presently there is no Regional Monitoring mechanism for the States to report the progress of ACDM Implementation and planning. It is essential to develop a reporting and monitoring scheme for implementation of the ACDM and subsequent integration process with ATFM.

2.11 Hence it is proposed to develop an annual regional monitoring and reporting scheme for the elements of the Asia Pacific A-CDM Implementation Plan.

2.12 The task may be undertaken by the ATFM/IR/SWG.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) Agree to the proposal of Para 2.11 and 2.12; and
- c) discuss any relevant matters as appropriate.

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