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ASSEMBLY — 40TH SESSION

TECHNICAL COMMISSION

Agenda Item 30: Other issues to be considered by the Technical Commission

THE STATUS OF IMPLEMENTATION OF B0-ACDM IN THE EGYPT

(Presented by Arab Republic of Egypt)

EXECUTIVE SUMMARY

This paper presents the status of implementation of B0-ACDM in the Egypt and highlights recommended steps for the effective implementation of Airport Collaborative Decision Making.

Strategic Objectives:

Financial implications:

References:

1. INTRODUCTION

1.1 An efficient Airport Operation involves multiple partnering agencies like Airport Operator, Airlines Operators, Ground handling Agencies, Airport Regulator, Air Traffic Control to optimize aircraft movement considering safety, passenger comfort and commercial aspect. The continued success of the process largely depends upon how these partnering agencies work in tandem to manage multiple activities by sharing relevant information among them. To facilitate this, a Common Information Sharing Platform is introduced to serve the purpose of sharing this information in a comprehensive, robust and secured manner.

1.2 B0-ACDM aims at Improved Airport Operation through Airport Collaborative Decision Making (ACDM). It is to be highlighted that ACDM implementation will enhance surface operations and safety by making airspace users, ATC and airport operators better aware of their respective situation and actions on a given flight.

2. DISCUSSION

2.1 ACDM is a Concept, which aims at improving Air Traffic Flow and Capacity Management (ATFCM) at airports by reducing delays, improving the predictability of events and optimizing the utilization of resources.

2.2 MIDANPIRG/16 meeting noted the outcome of the ICAO ACDM Seminar (Bahrain, 11-13 October 2015) that was organized in order to support the implementation of B0-ACDM in the MID Region and agreed to the following Conclusion:

CONCLUSION 16/6: ACTION PLAN FOR ACDM IMPLEMENTATION

That, in line with the MID Air Navigation Strategy, States concerned:

- a) be urged to develop their ACDM implementation plan, with the support of ICAO MID Office, if required; and*
- b) provide the ICAO MID Office with a copy of their plan before 1 November 2017.*

2.3 When ACDM is introduced as a project on an airport, the partners have to understand and discuss the impact and organization of such a project. Moreover, they need to prepare their own organizations for the work ahead, including the cooperation with other partners.

2.4 To achieve this:

- a) Cairo International Airport has developed an Airport Collaborative Decision Making (A-CDM) group, which include (Aircraft Operators, Ground Handlers, De-icing Companies, Air Traffic Control, Network Managers, etc. to implement the project at CAI Airport, Egypt
 - Attachment A provides information (MID Region Airport Collaborative Decision Making (MID A-CDM) Survey Questionnaire in Egypt)
- b) To support the complying with SARPs and to achieve the A-CDM project in Egypt. The Egyptian Civil Aviation Authority(ECAA) improve the effectiveness of the aerodrome regulation with regard to airport personal by modifying and revised the regulation to include:
 - the minimum qualification of the key management personnel serving in the following or equivalent positions:
 - (1) Aerodrome manger (accountable manger)
 - (2) Director of Operations
 - (3) other
 - ECAA Technical committee had been establish to follow up the A-CDM implementation process

2.5 ACDM **Challenges**: The meeting may wish to note that the following challenges related to ACDM implementation have been identified from our experience :

- Lack of knowledge and expertise (need for training);
- ACDM is a new culture of collaboration;
- Need of cooperation from all partners;
- Handling of commercially and security sensitive information;
- ACDM functions appropriate usage; and
- Financial resources.

3. CONCLUSION

3.1 The meeting is invited to:

- a) encourage States/Aerodromes required to implement ACDM; and
- b) recognize the importance and encourage airports to involve airlines and other stakeholders from an early stage of the planning process for A-CDM implementation.

ATTACHMENT

MID Region Airport Collaborative Decision Making (MID A-CDM) Survey Questionnaire

Name of the State/Administration: Egypt

Approach to implementation

1. Is the A-CDM implementation a national program/project or a local airport by airport project?
(Please select the applicable box)

It is a national program where A-CDM is being implemented at several airports with one entity managing the overall program to facilitate common procedures and approach to the implementations	
It is an “airport-by-airport” approach where each project is managed at “local” level	
It is a combination of a national program and separate airport projects manager at “local” level	✓
There is not yet an implementation plan for A-CDM	

Please add free text comments if needed:

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2. If A-CDM has been/is going to be implemented, please indicate at which airports and by what year:

Airport	Year
Cairo international airport	2022

Add additional lines as needed

For EACH airport mentioned above, please provide separate responses to QUESTIONS 3 to 22:

Status of A-CDM implementation

3. In which of the following phases is the A-CDM implementation?
(Please select the box that is the most suitable option)

No planning, i.e. nothing in relation to A-CDM has started yet	
Initial planning, i.e. collecting information about guidance material etc. to set the scope of the projects	
Planning well underway, i.e. scope set, engaged with stakeholders etc.	✓
Ready to launch A-CDM implementation project	
A-CDM implemented, i.e. procedures are in place and used in the “day-to-day” operations (Please indicate number of years for A-CDM used in day-to-day operations.	

Chapter 1 A-CDM Project Scope

4. Which one of the A-CDM conceptual elements are being implemented as part of the A-CDM project? *(Please select the applicable box(es))*

Information sharing	✓
Milestone Management	✓
Variable Taxi Times	
Collaborative Management of Flight Updates	
Pre Departure Sequencing	
A-CDM in adverse conditions	
Integration with Air Traffic Flow Management (ATFM)	

Please add free text comments if needed:

5. How is Information sharing implemented as par to the solution/planned A-CDM solution? *(Please select the applicable box(es))*

Via Information Sharing platform collecting data in real-time from various systems.	
Via manual interaction and information exchange	
A combination of the two alternatives above	✓

Please add free text comments if needed:

6. What Milestones (based on the Eurocontrol model) are captured/planned to be captured for the Milestone Management? *(Please select the applicable box(es) and please indicate if the implementation/planned implementation uses any other names for the milestones)*

Eurocontrol Milestones	Applied	Alternative name
Milestone 1 - ATC Flight Plan Activated	✓	
Milestone 2 - CTOT Allocation/EOBT – 2 Hrs		
Milestone 3 - Take off from Outstation		
Milestone 4 - Local Radar Update/FIR Entry		
Milestone 5 - Final Approach		
Milestone 6 - Landed	✓	
Milestone 7 - In Block		
Milestone 8 - Aircraft at Gate	✓	
Milestone 9 - TOBT Entere	✓	
Milestone 10 - TSAT Issued		
Milestone 11 - Boarding Starts		
Milestone 12 - Aircraft Ready		

Milestone 13 - Start-up Request	✓	
Milestone 14 - Start-up Approved		
Milestone 15 - Off Block		
Milestone 16 - Take Off	✓	

Please add free text comments if needed:

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7. Are you planning to apply the concept of Target Off Block Times? (Please select the applicable box)

No	
Yes, and this will be the responsibility of the Airlines and/or appointed Ground Handlers to manage and update the Target Off Block Times (TOBT) in order to ensure that TOBT is accurate and reliable.	

a. If yes, will the project provide a solution that facilitates predictive TOBT calculations? (Please select the applicable box)

No	
Yes	

8. What methodology is applied/going to be applied for calculating Variable Taxi Time? (Please select the applicable box)

“Table look up” utilizing fixed taxi time from gates to runways.	
Dynamic Variable Taxi Time using self-learning algorithms based on real-time and statistical surveillance data	✓

9. How is Target Start-Up Approval Time (TSAT) being calculated as part of Pre-Departure Sequencing? (Please select the applicable box)

Manual TSAT calculations	✓
Automatic TSAT calculations utilizing a Pre Departure Sequence or full Departure Management system/capability	

a. If TSAT Is calculated automatically, at what key milestones are the TSAT calculated/re-calculated? (Please select the applicable box(es))

Milestone 1 - ATC Flight Plan Activated	✓
Milestone 2 - CTOT Allocation/EOBT – 2 Hrs	
Milestone 3 - Take off from Outstation	
Milestone 4 - Local Radar Update/FIR Entry	
Milestone 5 - Final Approach	
Milestone 6 - Landed	✓
Milestone 7 - In Block	✓

Milestone 8 - Aircraft at Gate	✓
Milestone 9 - TOBT Entered	
Milestone 10 - TSAT Issued	
Milestone 11 - Boarding Starts	✓

10. How TSAT information is shared to Airlines operators/Ground Handling Agencies? *(Please select the applicable box(es))*

Via A-CDM portal/web interface/application	
Via mobile application	
Via Automatic Parking Aid displays at gate	
Data link	✓
Radio communication	✓

11. What are the key parameters for data exchange between ACDM and ATFM? *(Please specify in free text in the text box)*

radio commendation and data link

12. To establish the A-CDM project, has any guidance material been used to facilitate the scope and objectives? *(Please select the applicable box)*

Yes	✓
No	

a. If yes, please indicate what guidance material has been used. *(Please select the applicable box(es))*

ICAO Doc 9971	✓
Eurocontrol A-CDM Manual	✓
CANSO A-CDM Guidance Material	✓
FAA Surface CDM material	✓
IATA Guidance material	✓
Specific airport “operational guidelines” materials	✓
Other material like Eurocae or ETSI standards for A-CDM <i>(Please specify)</i>	✓

Please add free text comments if needed:

Chapter 2 Local Concept of Operations

13. Has a “Local Concept of Operations” document for the A-CDM implementation been established?
(Please select the applicable box)

Yes	
No	✓

a. If yes, please indicate the scope of the document. (Please select the applicable box(es))

It sets out the objectives that A-CDM is aiming to achieve	✓
It provides a common vocabulary with all definitions for A-CDM	✓
It provides information about information sharing and the sources for the information collected	✓
It provides information about the milestones used in the A-CDM process	✓
It defines each participating stakeholder’s role and responsibilities as part of the A-CDM process	✓
It provides how A-CDM shall operate during irregular operations	✓
It provides descriptions of the process steps for various regular and irregular operations	✓
It includes how to measure the success of A-CDM once implemented, i.e. Key Performance Indicators (KPIs)	✓

Please add free text comments if needed:

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Stakeholder Engagement

14. Which stakeholders are involved in the A-CDM implementation? (Please select the applicable box(es))

Airport operator	✓
Airline operators	✓
Ground handlers	✓
Air Navigation Service Provider	✓
Network Operations/ATFM unit	✓
Others (Please specify) ARFF	✓

15. Has a Memorandum of Understanding (MOU) been established between the stakeholders? *(Please select the applicable box)*

Yes	
No	✓

Please add free text comments if needed:

Chapter 3 Project Implementation

16. Has a project group been established with all stakeholders involved? *(Please select the applicable box)*

Yes	✓
No	

Please add free text comments if needed:

17. Is there a shared leadership or is the project management led by one organization? *(Please select the applicable box)*

Shared leadership	
Leadership is appointed from one organization	✓

a. Please explain why one of the options is applied:

TO be more accountable

18. Is the project group meeting held on a regular basis or ad-hoc? *(Please select the applicable box)*

Regular	✓
Ad-hoc	

a. Please explain why one of the options is applied:

at least until establish implantation plan

19. What are the objectives identified in the project that A-CDM is aiming to achieve? *(Please select the applicable box(es))*

Increase predictability	✓
Increase on-time performance	✓
Improve resource utilization	✓
Reduce taxi times	✓

Increase airport efficiency	✓
Reduce environmental nuisance	✓
Optimise the use of available capacity	✓
Improved safety	✓
Other <i>(please indicate what other objectives are identified in box below)</i>	

Please add free text comments if needed:

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1. Has the project identified a more detailed Key Performance Framework with Key Performance Indicators to facilitate the measurements of the A-CDM implementation? *(Please select the applicable box)*

Yes	✓
No	

- a. If yes, would the project team be willing to share this work with the ICAO Regional officer for Aerodromes and Ground Aids (AGA) to aid in its future work such as the establishment of more detailed A-CDM guidelines? *(Please select the applicable box)*

Yes	✓
No	

Please add free text comments if needed:

sure we ready to share our experience

Chapter 4 Training

2. Has the project established training in any of the following areas for the implementation of A-CDM? *(Please select the applicable box(es))*

Initial training for stakeholders to “what is A-CDM”	✓
Advanced training for stakeholders to “what is A-CDM”	✓
Training on how to operate under A-CDM procedures for all stakeholders	✓
Specialized/tailored training for each user in relation to “what do I need to do when A-CDM is operational at the airport”?	✓

Please add free text comments if needed:

Chapter 5 Challenges

3. Please rank what hold most true in relation to your A-CDM implementation. (Please use 1-5 where 1 indicates “no, do not agree at all” and 5 is “yes, agree completely”).

A-CDM as a concept is too complicated and vague	2
Developed guidelines are not enough to understand how A-CDM shall be implemented successfully	4
It is challenging to understand what an A-CDM implementation is, i.e. what has to be achieved to say “yes, we have A-CDM at our airport”	3
The challenge is to understand what system(s) is(are) and information are needed to implement A-CDM	4
It is challenging to get all stakeholders engaged and committed to the A-CDM project	2
It is challenging to manage the A-CDM project	2
It is challenging to understand what value A-CDM will bring	1
It is very complicated to establish how to measure the success of A-CDM	2

Please add free text comments if needed:

— END —