



International Civil Aviation Organization

The Third Meeting of ICAO Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/3)

Singapore, 10 – 14 March 2014

Agenda Item 5: Development of Regional ATFM Framework

COLLABORATIVE DECISION MAKING (CDM) PROJECT ASSESSMENT FORM

(Presented by ICAO)

SUMMARY

This paper presents a recently developed working template that may be used to assess the implementation status of CDM projects that States have implemented. ICAO Doc 9971 Part 1 & Eurocontrol Airport-CDM Implementation Manual were used as reference guidance material driving the development of the CDM Project Assessment Form.

1. INTRODUCTION

1.1 ICAO Doc 9971 Part 1 is an ICAO guidance material aimed to assist States who are interested to implement Collaborative Decision Making (CDM). It presents the CDM concept as a means to reach performance objectives for any processes which the CDM concept is used to support in a consistent and harmonized manner. One of the example applications of CDM is in the airport environment.

1.2 The Eurocontrol A-CDM implementation manual is designed to facilitate the harmonized implementation of A-CDM at European Airports. It provides a step by step guidance for implementation and operation. While the Eurocontrol A-CDM implementation manual focus on the airport environment, the structure and concepts within provides useful information to decision makers as well as technical and operational experts that could be applicable beyond the airport environment.

1.3 ICAO APAC Regional Sub-Office (RSO) sees the benefit of applying these 2 guidance materials and provide States with a useable and concise CDM project assessment template. The template aims to provide States with an overall view of the recommended process of implementing CDM while comparing with actual on-going practices.

2. DISCUSSION

2.1 The CDM Project Assessment Form (**Attachment A**) was recently used during a visit to Shanghai by ICAO APAC RSO in January 2014 under an invitation from Eastern Regional ATMB CAAC. The intention of the visit is to review the project status of the CDM system implemented by the Eastern China Region in accordance to Doc 9971 Part 1. The visit conducted by ICAO APAC RSO proved to be useful in reviewing the consistency of the Shanghai CDM project as compared to the process within the ICAO Doc 9971 Part 1, as well as allowing ICAO APAC RSO officers to identify and recommend improvements that could be applied.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the CDM Project Assessment Form and provide feedback for improvement;
- b) consider for inclusion of the Form as an Appendix to the Regional ATFM Framework;
- c) encourage States to apply the CDM Project Assessment Form during their CDM implementation;
- d) note that the ICAO APAC RSO is willing to provide assistance to States on assessing CDM projects if requested; and
- e) discuss any relevant matters as appropriate.

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Collaborative Decision Making (CDM) Project Assessment Form

Objective: The CDM* Project Assessment Form is a quick guide to assess the implementation status of CDM & identify further improvements that could be applicable. Doc 9971 Part 1 (Manual on Collaborative Air Traffic Flow Management) and the Eurocontrol A-CDM implementation manual were used to develop this Form.

**This can be extended to the A-CDM as an applicable element*

S/N	Questionnaire	Check	Details
1	Identification Of Need		
	Identify and describe the need, objective and/or rational of implementing CDM		
2	Setting up an CDM project (Information Gathering)		
	Identify a suitable Project Manager and CDM Project Committee who will be able to educate and convince all stakeholders, addressing: <ol style="list-style-type: none"> 1) Culture differences / changes 2) Creating an environment of mutual trust 3) Free sharing of information 4) How Confidentiality will be protected 5) Conduct training & buy-in activity 		

	<p>The below stakeholders have been identified and agreed to participate:</p> <ol style="list-style-type: none"> 1) Aircraft operators 2) ATC / Air Navigation Service Provide (ANSP) 3) Ground Handlers 4) Airport operator 5) State (Military, Security, Customs) 6) Regulators 7) Emergency Service Provider 8) Weather Service Provider <p>It must be clear all interested stakeholders must be able to involved and contribute from day one.</p>		
	<p>The gap analysis of implementing CDM have been performed and agreed by all stakeholders. Develop measureable benefits.</p> <p>There must be a Business Case that is driven by the below Key Performance Areas (KPAs)*:</p> <ol style="list-style-type: none"> 1) Access and equity 2) Capacity 3) Cost Effectiveness 4) Efficiency 5) Environment 6) Flexibility 7) Global Interoperability 8) Participation by the ATM community 9) Predictability 10) Safety 11) Security 		

	* Do not expect KPAs to be the same for all stakeholders.		
	<p>Is there an existing program / concept that can be incorporated or used?</p> <p>CDM project can be set-up as part of an existing activity but there should be clear and separately identifiable objectives, responsibilities, financing and deadlines.</p> <p>The aim is to utilise existing or modifiable resources to the maximum extent possible for cost effectiveness. Buy new only if unavoidable.</p>		
	<p>Identify which external systems and processes are required to provide the necessary information to support the operational use of CDM (eg Aircraft Docking Ground System, if applicable)</p> <p>Are these systems and processes enabled / adapted to ensure compatibility and at the same time, that their existing and core functions are not endangered?</p>		
3	Start implementing		
	<p>Develop a Multi-Stakeholder Project Plan* to:</p> <ol style="list-style-type: none"> 1) Describe the roles and responsibilities of each stakeholder 2) Describe the rules and accountabilities of each stakeholder (including process for making decisions) 3) Describe the compliance checks and monitoring that is to 		

	<p>be in place</p> <p>4) Consequences of not following rules to ensure strict adherences to the plan</p> <p>* In view of the multitude of stakeholders in a CDM implementation, a formal project plan and strict adherence to it is essential and well worth the effort of creating.</p>		
	<p>Which CDM elements will be implemented?</p> <ul style="list-style-type: none"> • Information-sharing* • Milestone approach • Variable taxi time calculation • Collaborative pre-departure sequencing • CDM in adverse conditions • Collaborative management of flight updates <p>* Information-Sharing is the foundation upon which all other elements based.</p>		
	<p>Identify the relevant CDM data elements and Event Triggers that will be implemented including</p> <ul style="list-style-type: none"> - How to implement - Who to provide / calculated by system? - Timing triggers - Data Quality - Where to host it <p>Data Elements are (please list those applicable):</p> <p>1) Flight Plan data</p>		

	<ul style="list-style-type: none"> 2) EOBT, TOBT & AOBT 3) EIBT & AIBT 4) ELDT & ALDT 5) Gate / Spot Allocation 6) TTOT, CTOT & ATOT 7) Cancellation of Flight (ie CNL message received) 8) Ground Handling Turn-around time <p>* There must be minimum functionality provided. These are local decisions and require solutions that best fit circumstances and may include development/ modifications of existing systems.</p>		
	Develop a performance baseline.		
	<p>Identify any project risks and their mitigation, eg:</p> <ul style="list-style-type: none"> 1) New culture 2) New working methods, solutions, functionality and processes 3) New and old risks <p>Perform training to ensure that all impacted parties are educated</p>		
4	Operational Evaluation and Continuous Improvement		
	Review the agreed KPAs with stakeholders. Are they still appropriate for the objectives? There may be a need to develop additional ones and get agreement from all stakeholders.		
	Measure the new performance baseline and review if there is an		

	<p>improvement. Improvements will need to be compared to pre-CDM operations. It is important to start measuring well in advance of implementation.</p>		
	<p>Develop reporting and feedback mechanism to provide a clear and unbiased picture of the achievements (of lack thereof) provided to all stakeholders</p>		