

**ICAO**

Fifth Meeting of the Asia/Pacific Airport Collaborative Decision Making Task Force (APA-CDM/TF/5)

*Video Conferencing, 15 to 17 June 2020***Agenda Item 6: APAC A-CDM Implementation Plan****REPORT ON ICAO APAC A-CDM SURVEY**

(Presented by India and CANSO)

SUMMARY

This paper presents the results from the “ICAO APA-CDM Survey Questionnaire #2” and provide a general overview of the A-CDM status and plans at an airport level in APAC member States/Administrations and provide conclusions on the survey results.

1. INTRODUCTION

1.1 A decision was taken in the First Meeting of the Asia/Pacific Airport Collaborative Decision Making Task Force (APA-CDM/TF/1), held at Kunming, China on 20th & 21st April 2017 that a survey questionnaire (#1) would be developed and circulated to APAC States to meet the objective of the task force in relation to reviewing the status of A-CDM implementation in APAC Region.

1.2 India and CANSO provided a preliminary summary of the results from responses to ICAO APA-CDM Survey Questionnaire and conclusions drawn from the survey results at the Second Meeting of the APA-CDM/TF held in Hong Kong, China from 29 November to 01 December 2017. It was decided that APA-CDM/TF will draft a Regional A-CDM Implementation Plan to foster harmonized and interoperable A-CDM implementation in the Asia/Pacific Region. The meeting agreed to re-circulate the survey to States/Administrations to seek a clarification in cases where the information provided was not clear.

1.3 India and CANSO presented the results of the ICAO APA-CDM Survey Questionnaire in the Third meeting of APA-CDM/TF held at Bali, Indonesia from 13th to 16th August 2018 providing a general overview of the A-CDM status and plans at an airport level and conclusions based on the survey results. An overview of the Draft Regional A-CDM Implementation Plan, developed by the APA-CDM/TF Expert Group was also presented. The initial draft plan was reviewed by the APA-CDM/TF/3 Meeting and various inputs were provided for the improvement of the plan

1.4 After deliberation and detailed review of the revised version incorporating feedback from APA-CDM/TF/3, the draft Asia/Pacific A-CDM Implementation Plan was adopted during the APA-CDM/TF/4 held at Bangkok, Thailand from 22 to 26 April 2019 and sent for approval by the Aerodrome Operations and Planning Sub Group (AOP/SG).

1.5 The AOP/SG/3 held in June 2019 reviewed and approved the Draft Asia/Pacific A-CDM Implementation Plan. APANPIRG/30 extended the Task Force by two years and the Terms of Reference (TOR) for APA-CDM/TF Group were modified.

1.6 As per the modified TOR, the scope and objective of the APA-CDM/TF is to assist States in implementation of A-CDM at high density international aerodromes. To achieve the above objective, the Task Force shall:

- a) Monitor and assist States in implementation of A-CDM at high density international aerodromes to foster harmonized implementations as per Asia/Pacific A-CDM Implementation Plan;
- b) Encourage States to share their experiences and best practices in implementing A-CDM through Workshop /Seminar;
- c) Monitor the progress of achieving the performance expectations as per Asia/Pacific A-CDM Implementation Plan and review them as needed;

1.7 A survey questionnaire has been developed and circulated to member States/Administrations in ICAO APAC region in this regard.

1.8 This paper presents the outcome of the Survey Questionnaire (#2).

2. DISCUSSION

2.1 ICAO APAC Office circulated “Asia/Pacific Airport Collaborative Decision Making (APA-CDM) Survey Questionnaire #2” to all APAC States/Administrations on 13 May 2020 with the following objectives.

- a) Allow states to provide updated information on the implementation plans;
- b) Provide feedback on the “ASIA PACIFIC AIRPORT COLLABORATIVE DECISION MAKING (A-CDM) IMPLEMENTATION PLAN, First Edition, 2019; and
- c) Help to further understand potential challenges that States/Administrations, ANSPs, and airports still have, when implementing A-CDM.

2.2 The Survey questionnaire was sent out to 39 States (including USA) and 2 SARs (Hong Kong, China and Macao, China).

2.3 15 Administrations that responded to ICAO APA-CDM Survey Questionnaire were Indonesia, Myanmar, Australia, Japan, India, Singapore, Hong Kong, Philippines, China, Thailand, Nepal, Vietnam, Republic of Korea, Malaysia and USA.

2.4 The percentage of States/Administrations responding to survey questionnaire is 37%.

2.5 As per Paragraph 7.3 of APAC Seamless ANS Plan, Version 3.0, November 2019, all international aerodromes should operate an A-CDM system for Airport Collaborative Information Sharing (ACIS) integrated with the ATM network function consistent with ACDM-B0/1 – 2.

3. REPORT OF THE SURVEY ANALYSIS

3.1 The detailed report of the analysis of the States’ responses to Survey Questionnaire is provided in **Appendix A**.

4. ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) Note the information provided in the paper;
- b) Urge those States, who have not submitted their inputs, to provide their inputs through completed survey questionnaire for enriching the outcomes of the survey; and
- c) Discuss any relevant matter as appropriate.

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APA-CDM/TF/5 – WP/09

Agenda Item – 6

Appendix A

Revision 1

A-CDM Survey #2 Report

Version 01.00

Date 20/06/14

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Introduction

Purpose of this Document

The purpose of this document is to

1. Summarize the results from the “Asia/Pacific Airport Collaborative Decision Making Survey Questionnaire, 2020” and provide a general overview of the A-CDM status and plans at an airport level and;
2. Provide conclusions on the survey results, where applicable.

Structure of the Document

The document is divided into:

- Summary of the Survey Outcome – this section provides the summary of the outcome for Survey Topics/Questions no. 1, 2, 3-16 and 17.
- Detailed results on Survey Topics – this section provides the detailed responses for Topics/Questions no. 3, 4 and 6-16.

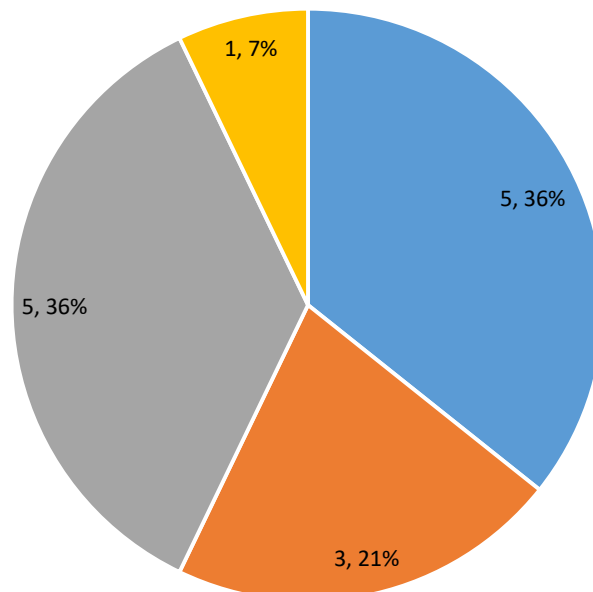
Summary of Survey Outcome

- The Survey was sent out to 39 States and 2 SARs
- 15 States and SARs (or ~37%) have responded up until 2020-06-12

Summary of Topic 1

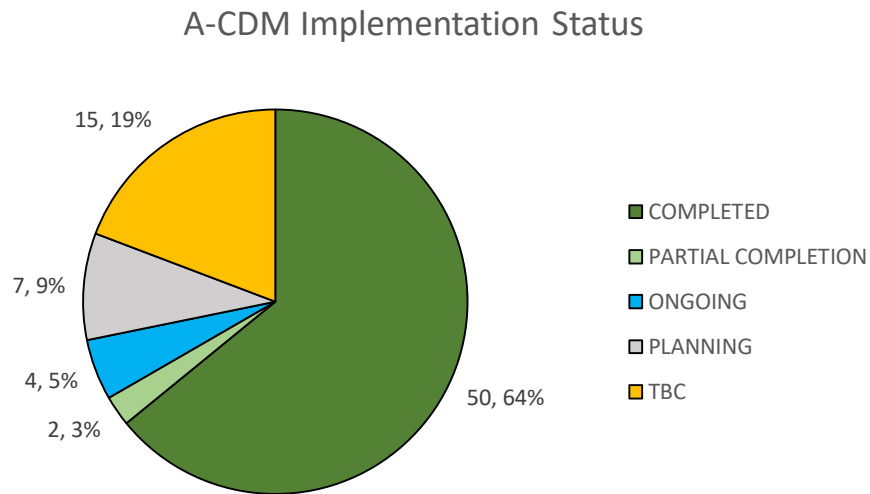
Is the A-CDM implementation a national/project or local airport-by-airport project?

- 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 manage at “local” level



Summary of Topic 2

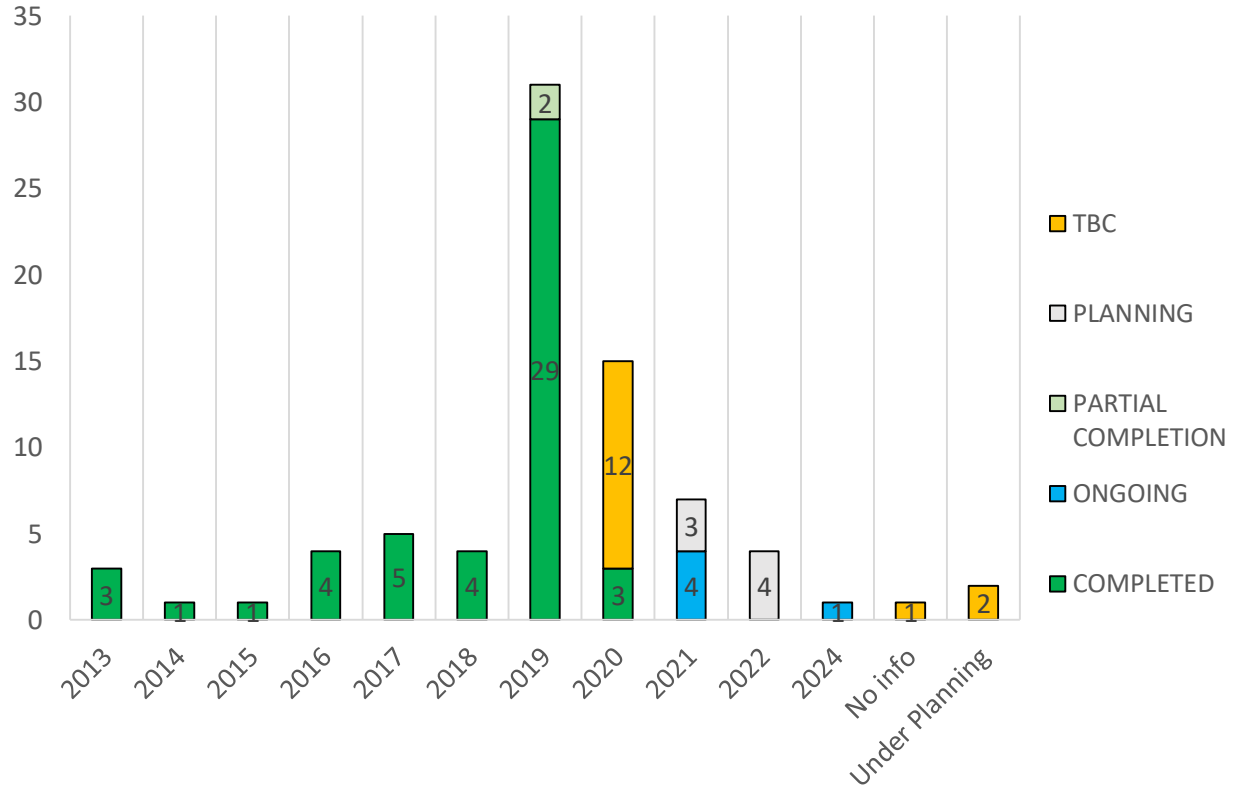
Based on data collected from this survey as well as from States and SARs in previous Task Force meeting 78 airports in the APAC region are engaged in A-CDM programs in various stages. The following graph illustrates the current A-CDM Implementation Status of those 78 airports.



NOTE 1 – TBC means To Be Confirmed

NOTE 2 – Data for the USA is not included in this graphical summary above.

The follinwg graph outlines the implementation status over years based on the data provided in this last survey.



Details about each airport's status and planning are provided in the following table:

Country	Airport	Year (New Survey)	Year (last input TF#4)	Status
Australia	Brisbane (YBBN)	2021	2019	ONGOING
Australia	Melbourne (YMML)	2021	2020	ONGOING
Australia	Perth (YPPH)	2021	2020	ONGOING
Australia	Sydney (YSSY)	2021	2020	ONGOING
China	Beijing Capital	2017	2017	COMPLETED
China	Beijing Daxing	2020	No Info	TBC
China	Changchun Longjia	2019	No Info	COMPLETED
China	Changsha Huanghua	2019	No Info	COMPLETED
China	Chengdu Shuangliu	2017	2017	COMPLETED
China	Chongqing Jiangbei	2018	No Info	COMPLETED
China	Dalian Zhoushuizi	2019	No Info	COMPLETED
China	Fuzhou Changle	2019	No Info	COMPLETED
China	Guangzhou Baiyun	2016	2016	COMPLETED
China	Guiyang Longdongbao	2019	No Info	COMPLETED
China	Haikou Meilan	2019	No Info	COMPLETED
China	Hangzhou Xiaoshan	2018	No Info	COMPLETED
China	Harbin Taiping	2019	No Info	COMPLETED
China	Hefei Xinqiao	2019	No Info	COMPLETED
China	Hohhot Baita	2019	No Info	COMPLETED
China	Jinan Yaoqiang	2019	No Info	COMPLETED

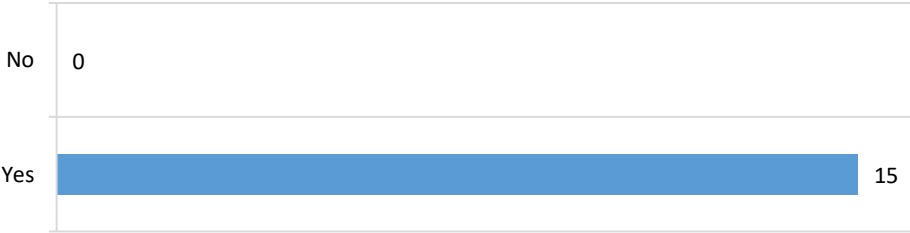
China	Kunming Changshui	2014	2014	COMPLETED
China	Lanzhou Zhongchuan	2019	No Info	COMPLETED
China	Nanchang Changbei	2019	No Info	COMPLETED
China	Nanjing Lukou	2019	No Info	COMPLETED
China	Nanning Wuxu	2019	No Info	COMPLETED
China	Ningbo Lishe	2019	No Info	COMPLETED
China	Qingdao Liuting	2019	No Info	COMPLETED
China	Sanya Fenghuang	2019	No Info	COMPLETED
China	Shanghai Hongqiao	2013	2013	COMPLETED
China	Shanghai Pudong	2016	2016	COMPLETED
China	Shenyang Taoxian	2019	No Info	COMPLETED
China	Shenzhen Baoan	2016	2016	COMPLETED
China	Shijiazhuang Zhengding	2019	No Info	COMPLETED
China	Taiyuan Wusu	2019	No Info	COMPLETED
China	Tianjin Binhai	2019	No Info	COMPLETED
China	Urumqi Diwopu	2019	No Info	COMPLETED
China	Wenzhou Longwan	2019	No Info	COMPLETED
China	Wuhan Tianhe	2019	No Info	COMPLETED
China	Xi'an Xianyang	2017	2017	COMPLETED
China	Xiamen Gaoqi	2019	No Info	COMPLETED
China	Yantai Penglai	2020	No Info	TBC
China	Yinchuan Hedong	2020	No Info	TBC
China	Zhengzhou Xinzheng	2019	No Info	COMPLETED
China	Zhuhai Jinwan	2019	No Info	COMPLETED
India	Ahmedabad	2020	2019	COMPLETED
India	Bengaluru	2013	2013	COMPLETED
India	Chennai	2018	2018	COMPLETED
India	Cochin	Under Planning	No Info	TBC
India	Delhi	No info	2013	COMPLETED
India	Guwahati	2020	2019	COMPLETED
India	Hyderabad	Under Planning	No Info	TBC
India	Jaipur	2019	2019	COMPLETED
India	Kolkata	2018	2018	COMPLETED
India	Mumbai	2015	2015	COMPLETED
India	Shamshabad	No info	No Info	TBC
India	Trivandrum	2020	2019	COMPLETED
Indonesia	Sepinggan Balikpapan International Airport	2020	No Info	TBC
Indonesia	Juana International Airport	2020	No Info	TBC
Indonesia	Ngurah Rai International Aiport	2020	No Info	TBC
Indonesia	Soekarno Hatta International Airport	2020	No Info	TBC
Japan	Sapporo(New Chitose)	2019	2018	COMPLETED
Japan	Tokyo(Haneda)	2020	2020	TBC
Japan	Tokyo(Narita)	2020	2020	TBC
Malaysia	Kuala Lumpur	2021	2020	PLANNING
Myanmar	Yangon International Airport	2022	No Info	PLANNING
Nepal	Tribhuvan International Airport	2022	No Info	PLANNING
Philippines	RPLL	2022	2022	PLANNING
ROK	Gimhae International Airport (RPKK)	2020	2020	TBC

ROK	Gimpo International Airport (RKSS)	2020	2020	TBC
ROK	Incheon International Airport (RKSI)	2017	2017	COMPLETED
ROK	Jeju International Airport (RKPC)	2020	2020	TBC
SAR Hong Kong	Hong Kong International Airport	2017	2017	COMPLETED
Singapore	Singapore Changi International Airport	2016	2016	COMPLETED
Thailand	Don Mueang International Airport	2019	2020	PARTIAL COMPLETION
Thailand	Suvarnabhumi International Airport	2019	2020	PARTIAL COMPLETION
US	27 Airports over the next 5 years	2024		ONGOING
Vietnam	Da Nang International Airport	2022	2021	PLANNING
Vietnam	Noi Bai International Airport	2021	2020	PLANNING
Vietnam	Tan Son Nhat International Airport	2021	2020	PLANNING

Summary of Topic 3 & 5

Topics 3 and 5 was “yes/no” alternative questions and are therefore presented separately from the Topics that allows for “ranking”.

Topic 3 asked the question “Are you aware of the Asia/Pacific A-CDM Implementation plan” where all survey respondents answered “yes”.



Topic 5 asked the question “The document provides a clear information about ICAO’s guidance on “what” and “when” certain A-CDM and also associated Air Traffic Flow Management (ATFM) integration capabilities should be implemented” where all survey respondents answered apart from one answered “yes”.

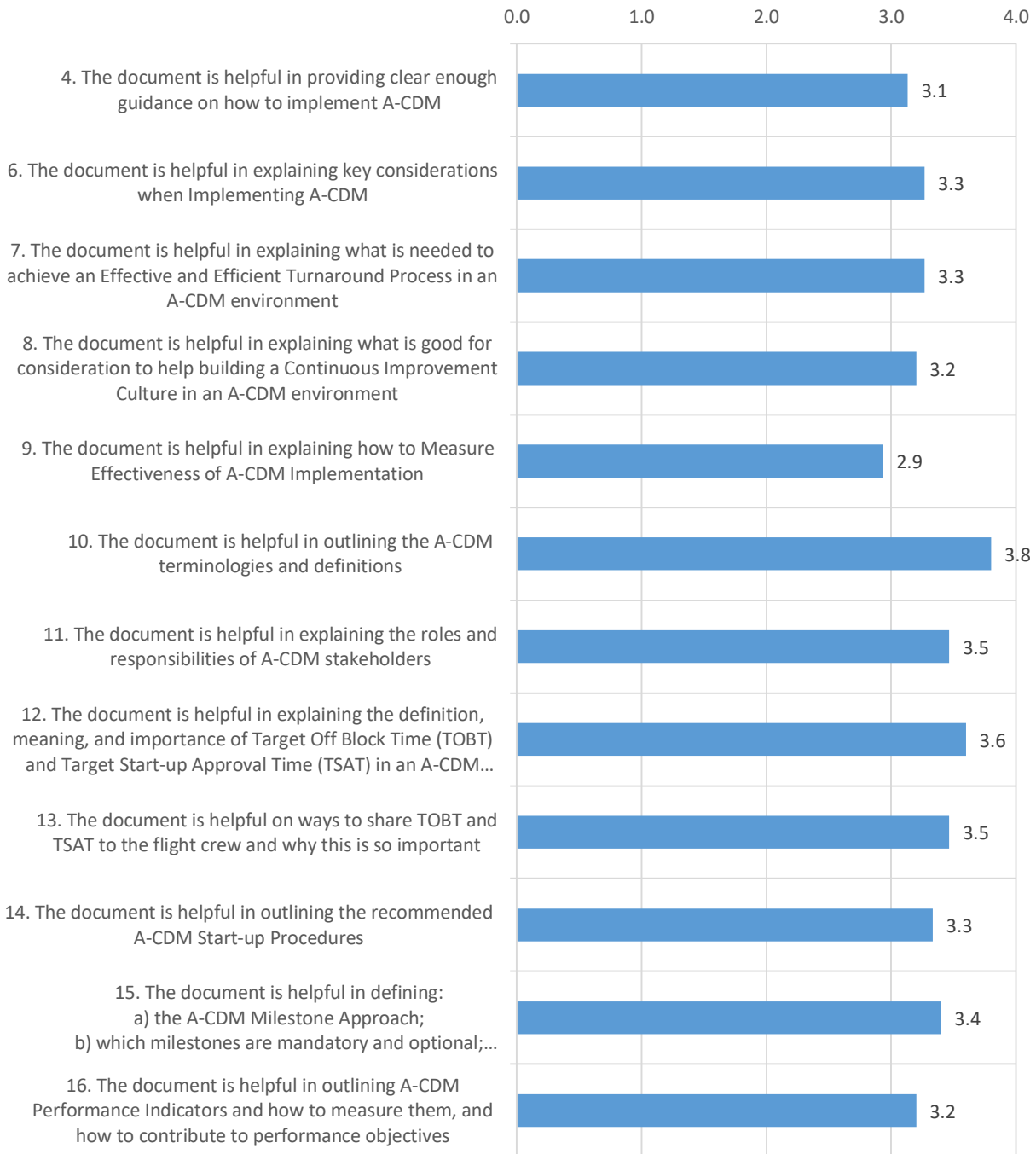
The “no” answer also had the following comment:

- “Document is vague. It lacks the clear and precise information as which part should be associated for integration.”



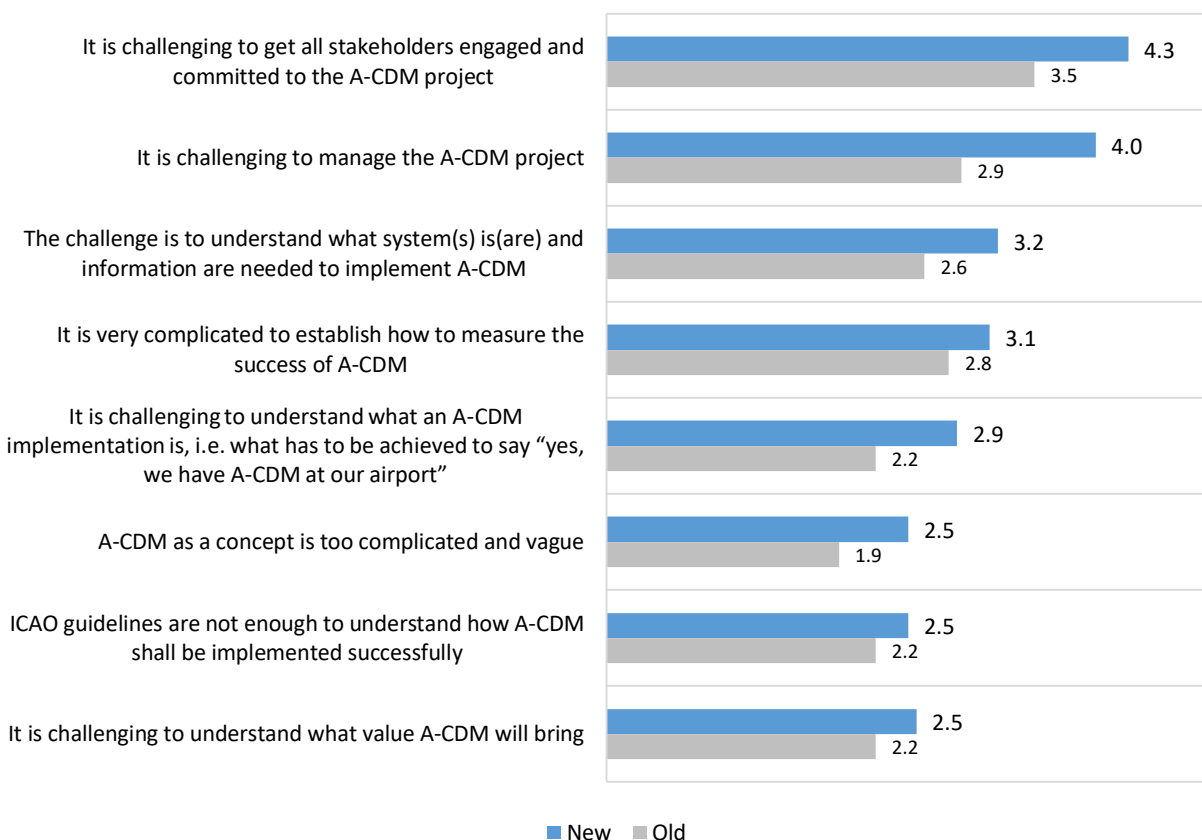
Summary on Topics 4 & 6-16

The following graph summarizes the average values (rank between 1 to 4) for topics 4 and &-16. For all topics the outcome is well above the average and shows that the survey respondents finds the Implementation Plan useful to very useful which is a good result. There are however areas that could be addressed to improve the document, or at least investigate why lower scores where given.



Summary on Topic 17

Topic 17 addressed the some specific A-CDM implementation challenges. The graph below shows the results from the new survey (in blue) as well as the results from the old survey (in grey).



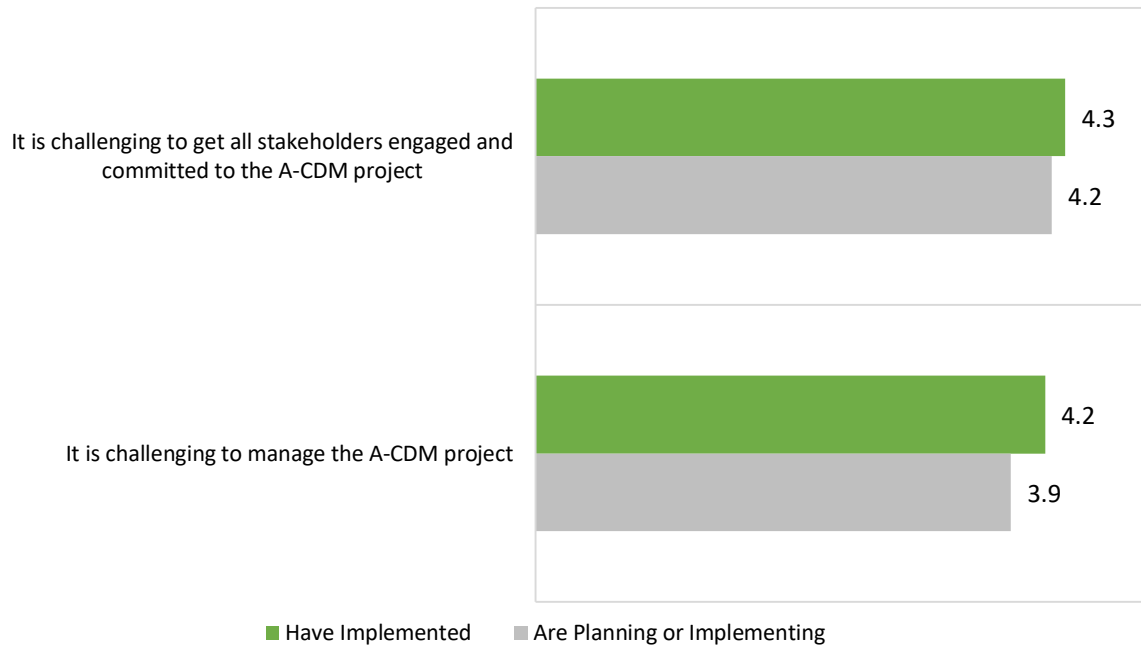
Noticeable is that the values for all challenges have increased since the previous survey. The ranking order has also slightly changed which is highlighted in the table below.

New Survey Ranking	New Survey Ranking	Old Survey Ranking
It is challenging to get all stakeholders engaged and committed to the A-CDM project	1	1
It is challenging to manage the A-CDM project	2	2
The challenge is to understand what system(s) is(are) and information are needed to implement A-CDM	3 (UP)	4
It is very complicated to establish how to measure the success of A-CDM	4 (DOWN)	3
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"	5 (UP)	7
A-CDM as a concept is too complicated and vague	6 (UP)	8
ICAO guidelines are not enough to understand how A-CDM shall be implemented successfully	7 (DOWN)	6
It is challenging to understand what value A-CDM will bring	8 (DOWN)	5

In the results related to challenges two stand out namely:

- It is challenging to get all stakeholders engaged and committed to the A-CDM project
- It is challenging to manage the A-CDM project

By comparing the answers on these challenges from States and ROK's that have implemented A-CDM versus those that are doing it or are planning to do so It seems as if the ones that have implemented are ranking these challenges as more difficult (if ever so slightly). The following graph highlights this result.

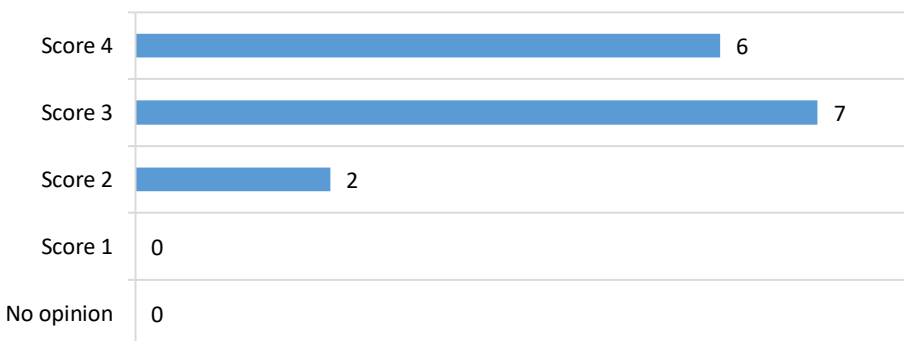


Detailed Results on Survey Topics

In the following sub sections detailed results are presented for topics 4 and &-16. Each topic is ranked between 1 to 4. A 1 means “not helpful at all” up to the max of 4 which means “Very helpful”.

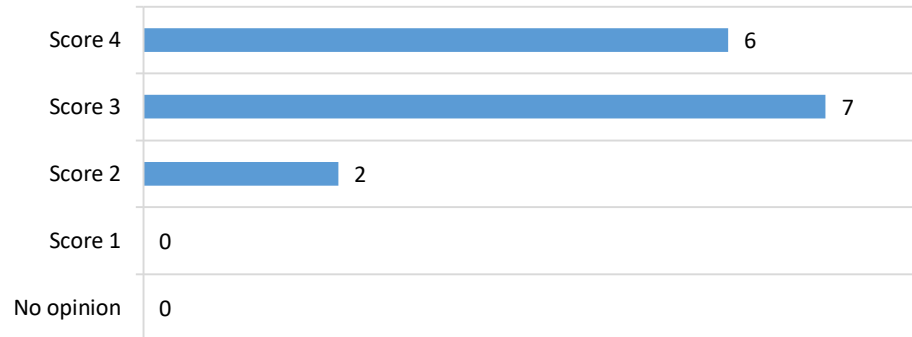
Topic 4

- The document is helpful in providing clear enough guidance on how to implement A-CDM



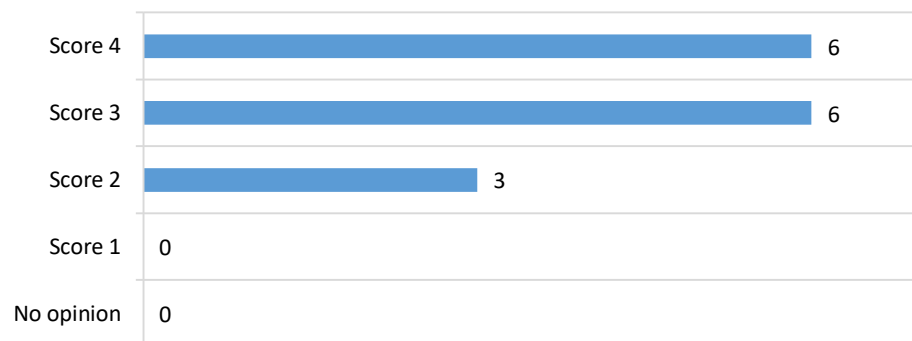
Topic 6

- The document is helpful in explaining key considerations when implementing A-CDM



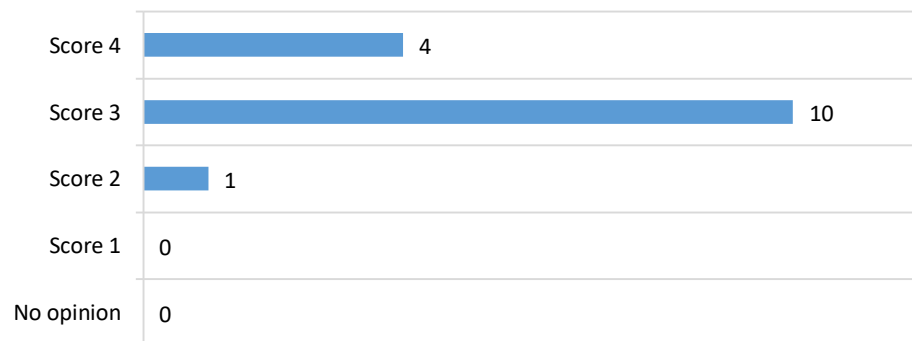
Topic 7

- The document is helpful in explaining what is needed to achieve an Effective and Efficient Turnaround Process in an A-CDM environment



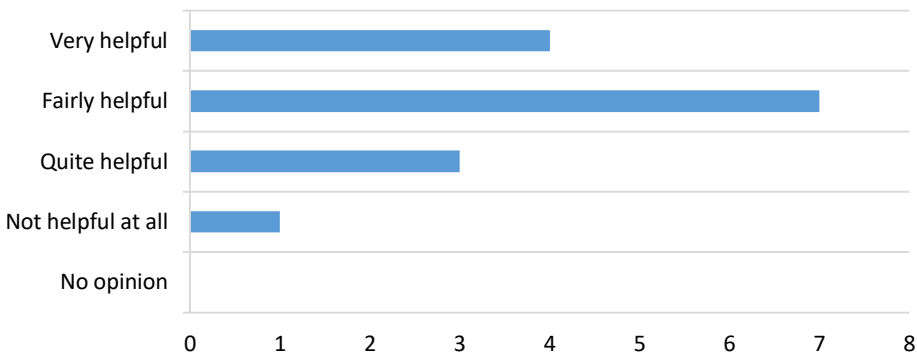
Topic 8

- The document is helpful in explaining what is good for consideration to help building a Continuous Improvement Culture in an A-CDM environment



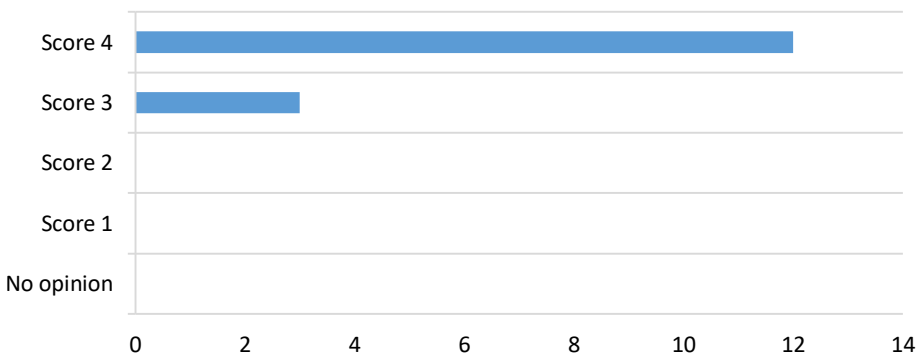
Topic 9

- The document is helpful in explaining how to Measure Effectiveness of A-CDM Implementation



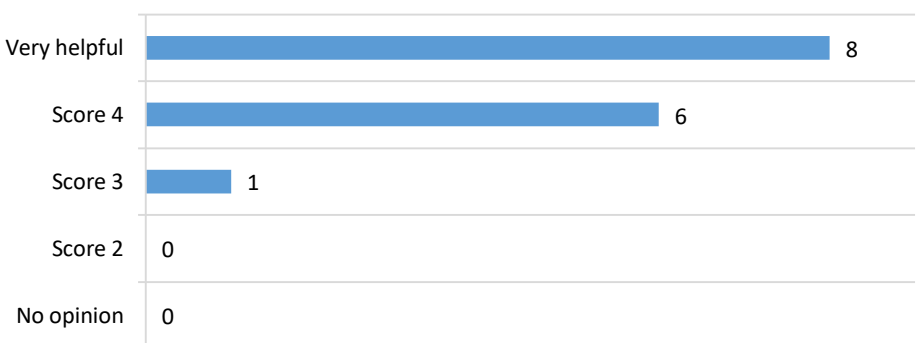
Topic 10

- The document is helpful in outlining the A-CDM terminologies and definitions



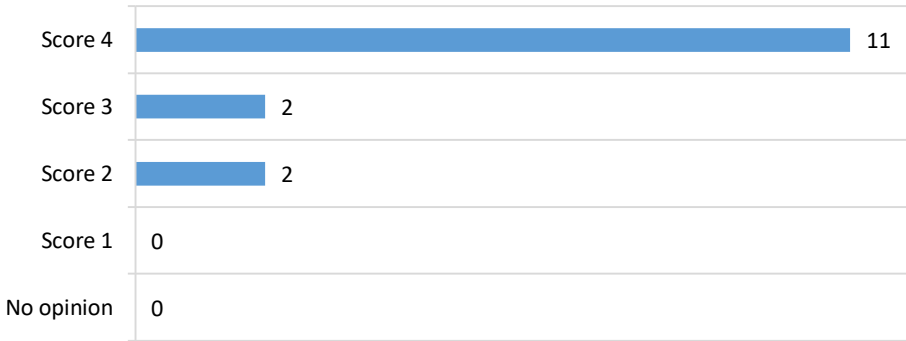
Topic 11

- The document is helpful in explaining the roles and responsibilities of A-CDM stakeholders



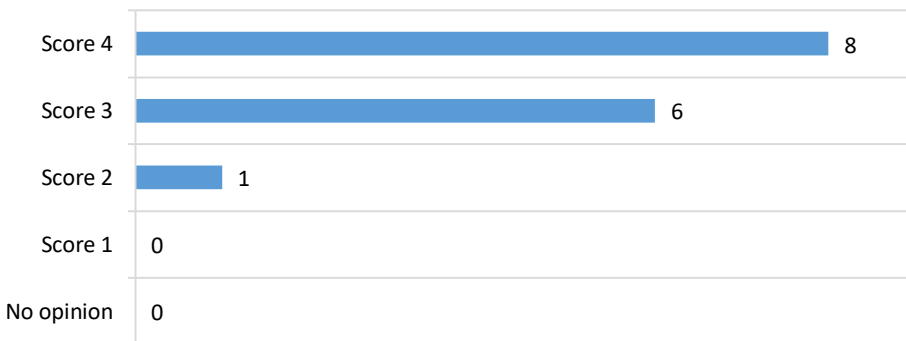
Topic 12

- The document is helpful in explaining the definition, meaning, and importance of Target Off Block Time (TOBT) and Target Start-up Approval Time (TSAT) in an A-CDM implementation.



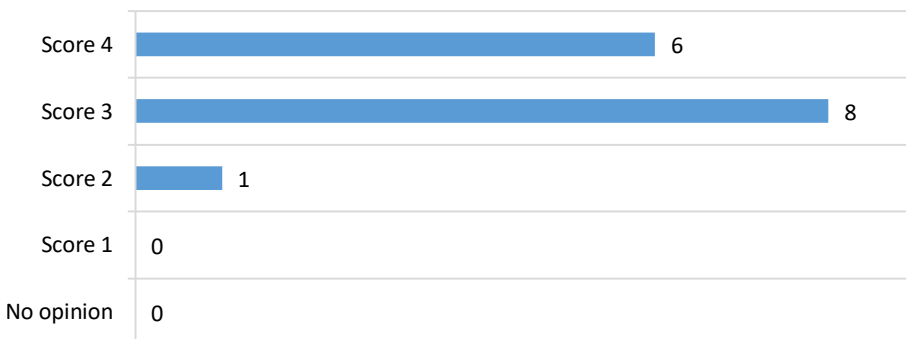
Topic 13

- The document is helpful on ways to share TOBT and TSAT to the flight crew and why this is so important



Topic 14

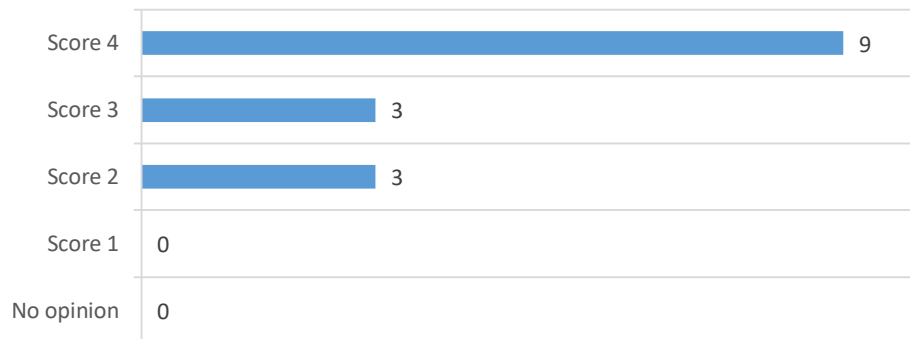
- The document is helpful in outlining the recommended A-CDM Start-up Procedures



Topic 15

- The document is helpful in defining:
 - the A-CDM Milestone Approach;
 - which milestones are mandatory and optional;
 - how the milestone is triggered;

- d) what data elements that can be/should be used for deriving a milestone; and
- e) what actions the A-CDM system should do, and what system that can provide the input data for deriving the milestone.



Topic 16

- The document is helpful in outlining A-CDM Performance Indicators and how to measure them, and how to contribute to performance objectives

