



International Civil Aviation Organization

**Seventh Meeting of Performance Based Navigation Sub-Group
(PBN SG/7)**

(Virtual Meeting, 5 – 6 December 2022)

Agenda Item 6: Any Other Business

OUTCOMES OF THE CCO/CDO WORKSHOP

(Presented by the secretariat)

SUMMARY

This paper presents the outcomes of the CCO/CDO Workshop held in (Abu Dhabi, UAE, 13 – 14 June 2022).

Action by the meeting is at paragraph 3.

REFERENCES

- Nineteenth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group MIDANPIRG/19;
- Report of the Ninth Meeting of the AIM Sub-Group (AIM SG/9);
- Report of the Sixth meeting of the PBN Sub-Group (PBN SG/6).

1. INTRODUCTION

1.1 Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG/19), which was held in Riyadh, Saudi Arabia (14 – 17 February 2022); through its Conclusion 19/10, agreed that a Workshop on CCO/CDO implementation to be organized in 2022, in collaboration with MIDFPP, to provide necessary knowledge about the ICAO provisions on the subject and share experience and best practices on CCO/CDO implementation by States/Airspace users.

1.2 The meeting may wish to recall that the provisions related to the CCO/CDO publication/charting contained in Doc 9931: Continuous Descent Operations (CDO) Manual and Doc 9993: Continuous Climb Operations (CCO) Manual; and in parallel to the recommendations of the MID CCO/CDO Ad Hoc Working Group on the CCO/CDO publication/charting.

2. DISCUSSION

2.1 The meeting may wish to note the successful conduct of the CCO/CDO Implementation Workshop in Abu Dhabi, UAE during the period 13 – 14 June 2022; GCAA/UAE generously hosted the Workshop.

2.2 The Workshop was attended by a total of thirty-four (34) participants from five (5) States, one (1) International Organization, and three (3) representatives from Industry.

2.3 The Objectives of the workshop was as follows:

- A) provide the participants with a detailed understanding of the CCO/CDO operations and the benefits of implementation;
- B) provide in-depth analysis for the planning and implementation issues related to the CCO/CDO operations;
- C) provide necessary knowledge about the related ICAO provisions on the subject and share experience and best practices on CCO/CDO implementation by States/ ANSPs/ Airspace users; and
- D) address the CCO/CDO operations challenges/opportunities and obtain Users' requirements and views.

2.4 The Workshop served also as a platform for States, ANSPs, international organizations and industries to share their experiences and lessons learned regarding CCO and CDO implementation. To address the challenges identified within the MID Region related to the implementation of the CCO/CDO, this Workshop took place as capacity building activity. and was organized by experts from the MID Region, with participants and the support of the ICAO Secretariat, MIDFPP, Industry, International organizations and champion States.

2.5 Accordingly, The participants had the opportunity to discuss various aspects of implementation and guidance, including ICAO model processes for implementing CCO and CDO as laid down in Doc 9931 and Doc 9993, and capture the benefits and challenges from Airspace users.

2.6 The main outcomes of the Workshop were as follows:

- Increased awareness on background and implementation guidance for CCO/CDO.
- Gaining insights on the ICAO model processes for implementing CCO/CDO as laid down in Doc. 9931 and Doc 9993 were underlined and noted as an overriding importance.
- Learning and knowledge acquired of the standardization of CCO/CDO procedures for flight safety and the importance to be designed and presented in an unambiguous manner.
- in-depth knowledge of the design of CCO/CDO and airspace changes that may be needed to facilitate a collaborative process involving the ANSP, aircraft operators,

airport operators, the aviation regulator, and through appropriate channels, environmental entities, as necessary.

- Acquire a better understanding of the design process as a collaborative effort, thus focused collaboration between ATCOs and Flight Crews when developing new CCO/CDO procedures or operational changes is vital for the implementation's success and the optimisation of the vertical profiles.
- Training and communication to and within stakeholder groups are the foundation of a successful of CCO/CDO implementation.
- Agreement on the harmonized AIP content related to CDO to ensure that identified good practices are shared and that Flight Crews / Flight Planners should always know where CCO/CDO related text may be found in an AIP. A harmonized structure that promotes the sharing of good AIP practices, phraseology, definitions, how CDO is measured etc.
- Identification of a proposal for the harmonized location, structure and content of CCO/CDO material in the AIP, based on current good practices that were identified in the AIPs review. This proposal will be reviewed and agreed by various Working Arrangements such as the AIM SG and PBN SG before MIDANPIRG endorsement.
- Need to further develop guidance material to support and expedite the CCO/CDO implementation in MID region.
- The importance of human factors, training and phraseology of ATC staff, highlighted.
 - The need for expertise in FMS performance and flight procedure coding conventions to be included on the design team as CCO/CDO procedures will be stored in a navigation database.
- Understanding how important it is to run Simulation of the CCO/CDO procedure during the design phase or prior to flight trials, for controllers and pilots to better understand the issues and limitations that they each face.
- Identification of MID FPP support to be provided to facilitate the coordinated implementation of the CCO and the CDO in MID Region.
- Gaining knowledge and experience through hands-on practical exercises (group work), Q&A sessions, scenario challenges, etc.
- Stimulated discussions by the participants and enabled.

2.7 The Workshop received with appreciation the participation of a substantial number of experts from a range of Airspace users, Industry and States as well as the delivery of various presentations on the theme of CCO/CDO.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the successful conduct of the MID CCO/CDO Workshop; and
- b) note the outcomes of the MOD CCO/CDO Workshop for appropriate actions.

- END -