

**60th CONFERENCE OF
DIRECTORS GENERAL OF CIVIL AVIATION
ASIA AND PACIFIC REGIONS**

*Sendai, Japan
28 July - 1 August 2025*

AGENDA ITEM 3: AVIATION SAFETY

**IMPLEMENTATION OF COMPETENCY-BASED APPROACH
TO DANGEROUS GOODS TRAINING AND ASSESSMENT
IN MACAO, CHINA**

(Presented by Macao, China)

INFORMATION PAPER

SUMMARY

This paper shares the experience and actions employed by the Civil Aviation Authority of Macao, China (AACM) to implement Competency-Based Approach to Dangerous Goods Training and Assessment (CBTA) in Macao, China.

IMPLEMENTATION OF COMPETENCY-BASED APPROACH TO DANGEROUS GOODS TRAINING AND ASSESSMENT IN MACAO, CHINA

1. INTRODUCTION

1.1 The ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TIs) states that the employer of personnel that perform functions aimed at ensuring that dangerous goods are transported in accordance with the ICAO TIs must establish and maintain a dangerous goods training programme. The employer must ensure that personnel are competent to perform any function for which they are responsible prior to performing any of these functions and this must be achieved through training and assessment commensurate with the functions for which they are responsible.

1.2 In the 2021-2022 edition of ICAO TIs, ICAO updated the requirements of dangerous goods training and assessment for employees of shippers, freight forwarders, aircraft operators, handling agents and security staff from the categorization approach to the competency-based approach to shift the focus from simply completing training to demonstrating the specific knowledge, skills, and abilities needed to safely handle dangerous goods.

1.3 This paper shares the experience and actions employed by the Civil Aviation Authority of Macao, China (AACM) to implement Competency-Based Approach to Dangerous Goods Training and Assessment (CBTA) in Macao, China.

2. DISCUSSION

Requirements and Guidance

2.1 To comply with the Competency-Based Approach to Dangerous Goods Training and Assessment (CBTA) requirements, AACM published a new Macao Aeronautical Circular – Dangerous Goods Training Programme in December 2024. With reference to the ICAO TIs and the “Guidance on a Competency-Based Approach to Dangerous Goods Training and Assessment” (ICAO Doc 10147), the aeronautical circular promulgates the requirements and provides guidance to assist aircraft operators, shippers, freight forwarders, ground handling agents, security service providers and training providers in Macao to conduct training needs analysis and adopt competency-based approach to their dangerous goods training and assessment. The aeronautical circular provides an alternative for industrial stakeholders to conduct their own dangerous goods training and assessment or utilize outsourced services offered by third party training providers provided that the training providers’ dangerous goods training programmes are compatible with their results of the training needs analysis.

2.2 Taking into account industrial stakeholders need adequate time to prepare and adjust their training and assessment for the new requirements, AACM set a transitional arrangement to allow industrial stakeholders to submit their dangerous goods training programmes to the AACM for acceptance on or before 1 January 2026. Satisfactory result of categorization approach to dangerous goods training and assessment with validity period beyond 1 January 2026 will continue to be valid until they expire and competency-based approach to dangerous goods training and assessment shall be carried out afterwards.

Briefing Session

2.3 Pursuant to the new aeronautical circular publication, AACM organized two briefing sessions to industrial stakeholders in March 2025. The briefing sessions introduced the new training and assessment requirements, the objectives of competency-based approach to dangerous goods training and assessment and exchanged views on CBTA implementation.

Capacity Building

2.4 With the aim to facilitate industrial stakeholders to foster personnel to carry out competency-based approach to dangerous goods training and assessment, AACM organized a five-day “Competency-Based Training for Dangerous Goods Instructors” course in June 2025. The course enlightened participants to acquire techniques and strategies to plan and deliver robust CBTA compliant dangerous goods training programmes.

Local training provider

2.5 In response to the needs from industrial stakeholders regarding the establishment of local dangerous goods training providers to enhance stakeholders’ competency to handle dangerous goods, AACM carried out extensive communication to support them in developing dangerous goods training programmes that accommodate their needs. Relevant training programmes were assessed and accepted by AACM, and the first local training provider is thereby established to start delivering training and assessment to industrial stakeholders since June 2025.

3. ACTION BY THE CONFERENCE

3.1 The Conference is invited to note the information contained in this Paper.

— END —