

AERONAUTICAL CIRCULAR CIVIL AVIATION AUTHORITY – MACAO, CHINA

SUBJECT:

USE OF REPRESENTATIVE TRAINING DEVICES

EFFECTIVE DATE:

01 April 2023

CANCELLATION:

Nil

GENERAL:

The President of Civil Aviation Authority – Macao, China, in exercise of his power under Paragraph 89 of the Air Navigation Regulation of Macao (ANRM) and Article 35 of the Statutes of Civil Aviation Authority, approved by the Decree-Law 10/91/M, established this Aeronautical Circular (AC).

1 Introduction

- 1.1 According to paragraph 1 (1)(b) in Part B of the Ninth Schedule to the ANRM, every member of the crew shall have practised within the relevant period under the supervision of the operator or of a person or organization appointed by the operator for the purpose of carrying out of the necessary functions they are to perform in an emergency or in a situation requiring emergency evacuation, either in an aircraft of the type to be used on the flight or in apparatus approved by the Civil Aviation Authority for the purpose and controlled by persons so approved.
- 1.2 Paragraph 6 to Aeronautical Circular No. AC/OPS/016 and paragraph 6.8.3 to Aeronautical Circular No. AC/OPS/025 state that an operator may use representative training devices for training and checking of crew members as an alternative to the use of the actual aircraft or required equipment.

1.3 This AC is established to promulgate requirements and guidance with regard to the use of representative training devices for training and checking purposes.

2 Applicability

This AC applies to all Macao AOC holders wishing to use representative training devices for training and checking of crew members as an alternative to the use of the actual aircraft or required equipment.

3 Use of representative training devices

3.1 An operator may use representative training devices for training and checking of crew members as an alternative to the use of the actual aircraft or required equipment. The use of representative training devices listed below shall be approved by the AACM.

- (a) cabin training device;
- (b) emergency exit trainer;
- (c) safety and emergency equipment; and
- (d) device used for fire and smoke training and checking;
- (e) device used for water survival training and checking.

3.2 The operator shall ensure that the representative training devices can represent the aircraft or required equipment as much as practicable with respect to the factors outlined in Appendix A to this AC.

3.3 In case the representative training devices could not accurately represent the actual aircraft or required equipment, the operator shall highlight the differences between the characteristics of the actual aircraft or required equipment and those of the representative training device during training.

3.4 For the use of cabin training device or emergency exit trainer as an alternative to the use of the actual aircraft, the operator shall apply for approval from the AACM with prescribed form and documents at least 60 days before the use of the proposed representative training devices. Upon satisfactory conclusion of the evaluation, an approval will be granted subject to such conditions and restrictions as the AACM may consider appropriate in the particular case. The approval in general remains valid for 24 months from the date of issue.

- 3.5 An application for renewal of the approval for the use of the particular cabin training device or emergency exit trainer shall be submitted to the AACM at least 30 days prior to the date of expiry of the approval. If the renewal application is submitted within the final three months of validity of the approval, the period of validity may be extended from the expiry date of the approval for a maximum of 24 months upon satisfactory evaluation.
- 3.6 For the use of other representative training devices specified in this AC, such as safety and emergency equipment, devices for firefighting or water survival training and checking, the operator shall incorporate relevant representative training devices information into its training manual approved by the AACM for the intended use.

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Appendix A Assessment factors for the use of representative training devices

Cabin Training Device

The cabin training device should represent the operator's aircraft in the following particulars:

- (a) layout of the cabin in relation to exits, emergency exits, galley areas and safety equipment stowage. Dimensions should be an accurate representation typical of aircraft in the fleet;
- (b) both cabin crew and passenger seat positioning – with particular accuracy where these are immediately adjacent to exits;
- (c) seat dimensions and seat pitch;
- (d) operation of exits and emergency exits in all modes of operation particularly in relation to its method of operation and weight and balance;
- (e) extent of movement and associated force of all controls for all equipment and services;
- (f) provision of emergency equipment of the type provided in the aircraft;
- (g) all cabin markings;
- (h) all cabin lightings;
- (i) cabin crew communications equipment and associated control panels;
- (j) evacuation slides, including normal and standby methods of operation; and
- (k) height and angle of inflated evacuation slides.

Emergency Exit Trainer

The emergency exit trainer should:

- (a) replicate the size, weight and operating characteristics of the exit of the aircraft type on which the crew member will operate (e.g. direction of movement of handles); and
- (b) be designed so that the representative exit can be operated in normal and emergency modes, particularly in relation to method of operation and forces required to operate them.

Safety and Emergency Equipment

Safety equipment include equipment installed/carried to be used during day-to-day operations for the safe conduct of the flight and protection of occupants (e.g. seat belt), while emergency equipment include equipment installed/carried to be used in case of abnormal or emergency situations that demand immediate action for the safe conduct of the flight and protection occupants, including life preservation (e.g. extinguisher). Some of this equipment may also be referred to as “survival equipment”.

Representative safety and emergency equipment used for training and checking purposes should be representative of the equipment used on the operator's aircraft with respect to weight, dimension, appearance, features, controls, types and operations if applicable.

Equipment that is removed from operation (e.g. a portable oxygen bottle) can be used for training purposes.

Device used for Fire and Smoke Training and Checking

The device used for simulated fire and smoke training and checking should be representative of the operator's aircraft and include aircraft furnishings as found on board the operator's aircraft, such as seats, galley units, lavatories, panels, overhead bins and waste bins.

The device used for live firefighting and the facilities where it is housed should meet applicable safety standards as required by the AACM. Fire extinguishers used for live firefighting should be charged with the appropriate agent or with an environmentally friendly agent.

Device used for Water Survival Training and Checking

The device used for water survival training and checking should be representative of that installed on the aircraft with respect to weight, dimensions, appearance, features and operation.

– END –