



Maldives Civil Aviation Authority
Republic of Maldives

Maldivian Civil Aviation Regulations

MCAR-26

Additional Airworthiness Specifications for Operations

Issue 2.00, 1 October 2024

Foreword

Maldives Civil Aviation Authority, in exercise of the powers conferred on it under Articles 5 and 6 of the Maldives Civil Aviation Authority Act 2/2012 has adopted this Regulation.

This Regulation shall be cited as ‘MCAR-26 Additional Airworthiness Specifications for Operations’ and shall come in to force on 1 October 2024.

Existing aviation requirements in the field of airworthiness as listed in ‘MCAR-26 Additional Airworthiness Specifications for Operations’ dated 1 July 2018 will be repealed as from 1 October 2024.

Definitions of the terms and abbreviations used in this regulation, unless the context requires otherwise, are in MCAR-1 Definitions and Abbreviations.

‘Acceptable Means of Compliance’ (AMC) illustrate a means, or several alternative means, but not necessarily the only possible means by which a requirement can be met.

‘Guidance Material’ (GM) helps to illustrate the meaning of a requirement.

Hussain Jaleel

Chief Executive

For the Civil Aviation Authority

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Section A — TECHNICAL REQUIREMENTS

Subpart A — GENERAL PROVISIONS

MCAR-26.A.01 Effectivity

- (a) This issue of MCAR-26 becomes effective on 1 October 2024.
- (b) Subpart D of this Regulation is applicable to all aircraft imported into the Maldives from 1 October 2024. For aircraft registered in the Maldives prior to 1 October 2024 compliance with Subpart D of this Regulation shall be demonstrated by the operators of such aircraft on or before 1 October 2027.

MCAR-26.A.05 Definitions

- (a) 'Large Aeroplane' shall mean an aeroplane that has the EASA Certification Specifications for large aeroplanes 'EASA CS-25' or equivalent in its certification basis.
- (b) 'Contracting State' shall mean a State which has adhered to the Chicago Convention on International Civil Aviation, whether or not it is a member of the United Nation (UN) and/or any of its other Agencies.
- (c) 'Cockpit Voice Recorder (CVR)' means a crash-protected flight recorder using a combination of microphones and other audio and digital inputs to collect and record the aural environment of the flight crew compartment and communications to, from and between the flight crew members;
- (d) 'Flight Data Recorder (FDR)' means a crash-protected flight recorder using a combination of data providers to collect and record parameters that reflect the state and performance of the aircraft;
- (e) 'Flight Recorder' means any type of recorder installed on the aircraft for the purpose of facilitating accident/incident safety investigations.
- (f) 'Commercial Air Transport (CAT) Operation' means an aircraft operation to transport passengers, cargo or mail for remuneration or other valuable consideration;
- (g) 'Lightweight Flight Recorder' means a system installed in the aircraft and recording in a robust recording medium primarily for the purpose of facilitating accident/incident safety investigations. Lightweight flight recorders comprise one or more of the following systems: an aircraft data recording system (ADRS), a cockpit audio recording system (CARS), an airborne image recording system (AIRS), and/or a data-link recording system (DLRS).

MCAR-26.A.10 Scope

- (a) Except otherwise stated, this Regulation lays down common additional airworthiness specifications in order to support the continuing airworthiness and safety improvements of:

1. Aircraft registered in the Maldives.
2. Aircraft registered in a Contracting State other than Maldives and used by an operator for which the Maldives ensures oversight.

MCAR-26.A.20 Temporary Inoperative Equipment

- (a) A flight shall not be commenced when any of the aircraft's instruments, items of equipment, or functions required by this regulation are inoperative or missing unless waived by the operator's Minimum Equipment List as defined in MCAR – Air Operations, Part - ORO.MLR.105 and approved by the CAA.

MCAR-26.A.30 Demonstration of Compliance

- (a) The CAA may adopt detailed and specific certification specifications as standard means to show compliance of products with this regulation.
- (b) Operators may demonstrate compliance with the requirements of this Regulation by complying with:
1. The detailed specification issued by the CAA under paragraph (a); or
 2. The detailed specifications contained in EASA CS-26 or the equivalent specifications issued by EASA under EASA Part 21.B.70; or
 3. Technical standards offering an equivalent level of safety as those included in those specifications.

Subpart B — LARGE AEROPLANES

MCAR-26.A.50 Seats, Berths, Safety Belts, And Harnesses

Operators of large aeroplanes used in commercial air transport, type certified on or after 1 January 1958, shall ensure that each flight or cabin crew member seat and its restraint system are configured in order to provide an optimum level of protection in an emergency landing whilst allowing the occupant's necessary functions and facilitating rapid egress.

MCAR-26.A.60 Emergency landing – dynamic conditions

Operators of large aeroplanes used in commercial air transport of passengers, type-certified on or after 1 January 1958, and for which the individual certificate of airworthiness is first issued on or after 26 February 2021 shall demonstrate for each seat type design approved for occupancy during taxiing, take-off or landing that the occupant is protected when exposed to loads resulting from emergency landing conditions. The demonstration shall be made by one of the following means:

- (a) successfully completed dynamic tests;
- (b) rational analysis providing equivalent safety, based on dynamic tests of a similar seat type design.

The obligation set out in the first paragraph shall not apply to the following seats:

- (a) flight deck crew seats;
- (b) seats in low-occupancy aeroplanes involved only in on-demand non-scheduled commercial air transport operations;
- (c) seats in an aeroplane model listed in EASA Part 26 Appendix 1 Table A.1 and carrying a manufacturer serial number listed in that Table.

MCAR-26.A.100 Location of Emergency Exits

Except for aeroplanes having an emergency exit configuration installed and approved prior to 1 April 1999, operators of large aeroplanes used in commercial air transport having a maximum operational passenger seating configuration of more than nineteen with one or more emergency exits deactivated shall ensure that the distance(s) between the remaining exits remains (remain) compatible with effective evacuation.

MCAR-26.A.105 Emergency Exit Access

Operators of large aeroplanes used in commercial air transport shall provide means to facilitate the rapid and easy movement of each passenger from their seat to any of the emergency exits in case of an emergency evacuation.

MCAR-26.A.110 Emergency Exit Markings

Operators of large aeroplanes used in commercial air transport shall comply with the following:

- (a) means shall be provided to facilitate the location, access, and operation of emergency exits by cabin occupants under foreseeable conditions in the cabin in case of an emergency evacuation.
- (b) means shall be provided to facilitate the location and operation of emergency exits by personnel on the outside of the aeroplane in case of an emergency evacuation.

MCAR-26.A.120 Interior Emergency Lighting and Emergency Light Operation

Operators of large aeroplanes used in commercial air transport shall provide means to ensure that illuminated exit signage, general cabin and exit area illumination, and low level exit path illumination is available to facilitate the location of exits and movement of passengers to the exits in case of emergency evacuation.

MCAR-26.A.150 Compartment Interiors

Operators of large aeroplanes used in commercial air transport shall comply with the following:

- (a) all materials and equipment used in compartments occupied by the crew or passengers shall demonstrate flammability characteristics compatible with minimising the effects of in-flight fires and the maintenance of survivable conditions in the cabin for a time commensurate with that needed to evacuate the aircraft;
- (b) smoking prohibition shall be indicated with placards;
- (c) disposal receptacles shall be such that containment of an internal fire is ensured; such receptacles shall be marked to prohibit the disposal of smoking materials.

MCAR-26.A.155 Flammability of Cargo Compartment Liners

Operators of large aeroplanes used in commercial air transport, type certified after 1 January 1958, shall ensure that the liners of Class C or Class D cargo compartments are constructed of materials that adequately prevent the effects of a fire in the compartment from endangering the aircraft or its occupants.

MCAR-26.A.156 Thermal or acoustic insulation materials

Operators of large aeroplanes used in commercial air transport, type certified on or after 1 January 1958, shall ensure that:

- (a) for aeroplanes for which the first individual certificate of airworthiness is issued before 18 February 2021, when new thermal or acoustic insulation materials are installed as replacements on or after 18 February 2021, those new materials have flame propagation resistance characteristics which prevent or reduce the risk of flame propagation in the aeroplane;

- (b) for aeroplanes for which the first individual certificate of airworthiness is issued on or after 18 February 2021, thermal and acoustic insulation materials have flame propagation resistance characteristics which prevent or reduce the risk of flame propagation in the aeroplane;
- (c) for aeroplanes for which the first individual certificate of airworthiness is issued on or after 18 February 2021 and with a passenger capacity of 20 or more, thermal and acoustic insulation materials (including the means of fastening the materials to the fuselage) installed in the lower half of the aeroplane have flame penetration resistance characteristics which prevent or reduce the risk of flame penetration into the aeroplane after an accident and which ensure survivable conditions in the cabin for a time needed to evacuate the aeroplane.

MCAR-26.A.157 Conversion of Class D Compartments

Operators of large aeroplanes used in commercial air transport, type certified on or after 1 January 1958 shall ensure that:

- (a) for aeroplanes, the operation of which involves the transport of passengers, each Class D cargo or baggage compartment, regardless of its volume, complies with the certification specifications applicable to a Class C compartment;
- (b) for aeroplanes, the operation of which involves the transport of cargo only, each Class D cargo compartment, regardless of its volume, complies with the certification specifications applicable to either a Class C or a Class E compartment.

MCAR-26.A.160 Lavatory Fire Protection

Operators of large aeroplanes used in commercial air transport with a maximum operational passenger seating configuration of more than 19 shall comply with the following:

Lavatories shall be equipped with:

- (a) smoke detection means;
- (b) means to automatically extinguish a fire occurring in each disposal receptacle.

MCAR-26.A.170 Fire Extinguishers

Operators of large aeroplanes shall ensure that the following extinguishers do not use halon as an extinguishing agent:

- (a) built-in fire extinguishers for each lavatory waste receptacle for towels, paper or waste in large aeroplanes for which the first individual certificate of airworthiness is issued on or after 18 February 2020;
- (b) portable fire extinguishers in large aeroplanes for which the first individual certificate of airworthiness is issued on or after 18 May 2019

MCAR-26.A.200 Landing Gear Aural Warning

Operators of large aeroplanes used in commercial air transport shall ensure that an appropriate landing gear aural warning device is installed in order to significantly reduce the likelihood of landings with landing gear inadvertently retracted.

MCAR-26.A.205 Runway Overrun Awareness and Alerting Systems

- (a) Operators of large aeroplanes used in commercial air transport shall ensure that every aeroplane for which the first individual certificate of airworthiness was issued on or after 1 January 2025, is equipped with a runway overrun awareness and alerting system.
- (b) This system shall be designed in a manner allowing to reduce the risk of a longitudinal runway excursion during landing by providing an alert, in-flight and on the ground, to the flight crew when the aeroplane is at risk of not being able to stop within the available distance to the end of the runway.

MCAR-26.A.250 Flight Crew Compartment Door Operating Systems - Single Incapacitation

Operators of large aeroplanes used in commercial air transport shall ensure that flight crew compartment door operating systems, where installed, be provided with alternate opening means in order to facilitate access by cabin crew members into the flight crew compartment in the case of a single flight crew member incapacitation.

Subpart C — LARGE HELICOPTERS

MCAR-26.A.400 Fire Extinguishers

Operators of large helicopters shall ensure that the following extinguishers do not use halon as an extinguishing agent:

- (a) built-in fire extinguishers for each lavatory waste receptacle for towels, paper or waste in large helicopters for which the first individual certificate of airworthiness is issued on or after 18 February 2020;
- (b) portable fire extinguishers in large aeroplanes for which the first individual certificate of airworthiness is first issued on or after 18 May 2019

GM1 26.A.400(b) Fire Extinguishers

1. LAVATORY FIRE EXTINGUISHERS

Appendix D to Report DOT/FAA/AR-96/122 'Development of a Minimum Performance Standard for Lavatory Trash Receptacle Automatic Fire Extinguishers' of February 1997 may be used for showing compliance with EASA CS 26.400(b).

General guidance on the alternative extinguishing agents that are considered to be acceptable can be found in AMC 29.1197.

2. HANDHELD FIRE EXTINGUISHERS

Society of Automotive Engineers (SAE) Aerospace Standard (AS) 6271 'Halocarbon Clean Agent Hand Held Fire Extinguisher' or European Technical Standard Order (ETSO) 2C515 'Aircraft Halocarbon Clean Agent — Handheld Fire Extinguisher' may be used for showing compliance with EASA CS 26.400(b).

General guidance on the alternative extinguishing agents that are considered to be acceptable can be found in AMC 29.1197.

Subpart D — FLIGHT RECORDERS

MCAR-26.A.500 Flight recorder

- (a) Turbine-engined aircraft with an MCTOM of 2250 kg or more and aeroplanes with an MOPSC of more than 9 shall be equipped with a combination recorder if all of the following conditions are met:
- (1) they are not within the scope of MCAR – Air Operations CAT.IDE.A.185, CAT.IDE.A.190, CAT.IDE.A.191, CAT.IDE.H.185, CAT.IDE.H.190, CAT.IDE.H.191
 - (2) they are used in Commercial Air Transport (CAT) operations.

AMC1 26.A.500(a) Flight recorder

1. Compliance with MCAR-26.A.500 requirement may be achieved by installing;
 - (a) a lightweight flight recorder with voice/audio recording capabilities; or
 - (b) a cockpit voice recorder and a flight data recorder.
2. If a lightweight recorder with voice/audio recording capabilities is installed, all the requirements of MCAR – Air Operations CAT.IDE.A.191 for aeroplanes and CAT.IDE.H.191 for helicopter are applicable.
3. If the option to install a cockpit voice recorder and a flight data recorder is chosen, all the requirements of MCAR – Air Operations CAT.IDE.A.185 regarding Cockpit voice recorder and CAT.IDE.A.190 regarding Flight data recorder for aeroplanes and CAT.IDE.H.185 regarding Cockpit voice recorder and CAT.IDE.H.190 regarding Flight data recorder for helicopters are applicable.

AMC2 26.A.500(a) Combination recorder

GENERAL

- (a) The flight parameters which are recorded as flight data, should meet the performance specifications (range, sampling intervals, accuracy limits and resolution in read-out) as defined in the relevant table of EUROCAE Document ED-112 'Minimum Operational Performance Specification for Crash Protected Airborne Recorder Systems', dated March 2003, or EUROCAE Document ED-155 'Minimum Operational Performance Specification for Lightweight Flight Recording Systems', dated July 2009, or any later equivalent standard accepted by CAA.
- (b) The operational performance requirements for the flight recorder should be those laid down in:
 - (1) EUROCAE Document ED-155 or any later equivalent standard accepted by CAA for lightweight flight recorders; or

- (2) EUROCAE Document ED-112 or any later equivalent standard accepted by CAA for crash-protected flight recorders.
- (c) When two flight data and cockpit voice combination recorders are installed, one should be located near the flight crew compartment, in order to minimise the risk of data loss due to a failure of the wiring that gathers data to the recorder. The other should be located at the rear section of the aircraft, in order to minimise the risk of data loss due to recorder damage in the case of a crash.
- (d) When two flight data and cockpit voice combination recorders are installed and an alternate power source is required for the CVR function, it is acceptable to provide this alternate power source only to the cockpit-mounted area microphone and to one recorder.

GM1 26.A.500 Combination recorder

GENERAL

- (a) A flight data and cockpit voice combination recorder is a flight recorder that records:
 - (1) all voice communications and aural environment required by MCAR – Air Operations CAT.IDE.A.185 regarding CVRs in case of aeroplanes and CAT.IDE.H.185 in case of helicopters; and
 - (2) all parameters required by MCAR – Air Operations CAT.IDE.A.190 in case of aeroplanes and CAT.IDE.H.190 in case of helicopters regarding FDRs with the same specifications required by those paragraphs.
- (b) In addition, a flight data and cockpit voice combination recorder may record data link communication messages and related information required by MCAR – Air Operations CAT.IDE.A.195 in case of aeroplanes and CAT.IDE.H.195 in case of helicopters.

MCAR-26.A.505 Protection of recordings and transcript

The recordings or transcripts of flight recorders shall not be used except where the recordings or transcripts are:

- (a) used in the investigation of an accident or incident instituted under CAA Regulations;
- (b) related to a safety-related event identified in the context of a safety management system and are restricted to the relevant portions of a de-identified transcript of the recording; and are subject to the protections accorded by ICAO Annex 19;
- (c) sought for use in criminal proceedings not related to an event involving an accident or incident investigation and are subject to the protections accorded by ICAO Annex 19;
- (d) used for inspections of flight recorder systems as provided in Section 7 of Appendix 8 to ICAO Annex 6;

- (e) used by the operator solely for airworthiness or maintenance purposes;
- (f) used by the operator in the operation of a flight data analysis;
- (g) sought for use in proceedings not related to an event involving an accident or incident investigation;
- (h) de-identified; or
- (i) disclosed under secure procedures.

MCAR-26.A.510 Handling of flight recorder recordings: preservation, production, protection and use

Handling of flight recorder recordings: preservation, production, protection and use should be performed in compliance with the applicable paragraphs of MCAR – Air Operations CAT.GEN.MPA.195.

MCAR-26.A.515 Flight data monitoring

- (a) The operators involved in commercial air transport shall establish and maintain a flight data monitoring programme, which shall be integrated in its management system, for aircraft with an MCTOM of 2 250 kg or more and aeroplanes with an MOPSC of more than 9 when such aircraft are installed with flight recorders pursuant to this Regulation.
- (b) The flight data monitoring programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.

AMC 26.A.515 Flight data monitoring

The flight data monitoring programme shall be in compliance with MCAR – Air Operations ORO.AOC.130