



CIVIL AVIATION DEPARTMENT
Republic of Maldives

MALDIVIAN
CIVIL AVIATION REGULATIONS

MCAR-18
Carriage of Dangerous Goods by Air

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FOREWORD

This regulation is published under the provision of the Act. No 2/2001, Maldives Civil Aviation Act.

The material in this regulation was developed using Annex 18 as a basis.

The provisions of MCAR-18 govern the transport of dangerous goods by air (for both international and domestic operations). The broad provisions of this Annex are amplified by the detailed specifications of the *ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284).

This regulation becomes effective 07 January 2010.



For the Civil Aviation Department
Aminath Solih
DIRECTOR GENERAL

CHAPTER 1. Definitions

When the following terms are used in this regulation, they have the following meanings:

Cargo aircraft. Any aircraft, other than a passenger aircraft, which is carrying goods or property.

Consignment. One or more packages of dangerous goods accepted by an operator from one shipper at one time and at one address, receipted for in one lot and moving to one consignee at one destination address.

Crew member. (Refer MCAR -1)

Dangerous goods. (Refer MCAR -1)

Dangerous goods accident. An occurrence associated with and related to the transport of dangerous goods by air which results in fatal or serious injury to a person or major property damage.

Dangerous goods incident. An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in injury to a person, property damage, fire, breakage, spillage, leakage of fluid or radiation or other evidence that the integrity of the packaging has not been maintained. Any occurrence relating to the transport of dangerous goods which seriously jeopardizes the aircraft or its occupants is also deemed to constitute a dangerous goods incident.

Exception. A provision in this regulation which excludes a specific item of dangerous goods from the requirements normally applicable to that item.

Exemption. An authorization issued by an appropriate national authority providing relief from the provisions of this regulation.

Flight crew member. (Refer MCAR -1)

Incompatible. Describing dangerous goods which, if mixed, would be liable to cause a dangerous evolution of heat or gas or produce a corrosive substance.

Operator. (Refer MCAR -1)

Overpack. An enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.

Note.— A unit load device is not included in this definition.

Package. The complete product of the packing operation consisting of the packaging and its contents prepared for transport.

Packaging. Receptacles and any other components or materials necessary for the receptacle to perform its containment function.

Note.— For radioactive material, see Part 2, paragraph 7.2 of the Technical Instructions.

Passenger aircraft. An aircraft that carries any person other than a crew member, an operator's employee in an official capacity, an authorized representative of an appropriate national authority or a person accompanying a consignment or other cargo.

Pilot-in-command. (See MACR-1 “Commander”)

Serious injury. An injury which is sustained by a person in an accident and which:

- a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received; or
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- c) involves lacerations which cause severe haemorrhage, nerve, muscle or tendon damage; or
- d) involves injury to any internal organ; or
- e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface; or
- f) involves verified exposure to infectious substances or injurious radiation.

State of Origin. The State in the territory of which the cargo was first loaded on an aircraft.

State of the Operator. (Refer MCAR -1)

UN number. The four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods to identify a substance or a particular group of substances.

Unit load device. Any type of freight container, aircraft container, aircraft pallet with a net, or aircraft pallet with a net over an igloo.

Note.— An overpack is not included in this definition.

CHAPTER 2 APPLICABILITY

2.1 General Applicability

These regulations shall be applicable to all domestic and international operations of civil aircraft. In cases of extreme urgency or when other forms of transport are inappropriate or full compliance with the prescribed requirements is contrary to the public interest, the CAD may grant exemptions from these provisions provided that in such cases every effort shall be made to achieve an overall level of safety in transport which is equivalent to the level of safety provided by these provisions.

Note 1.— Refer to 4.2 for dangerous goods normally forbidden for which an exemption may grant.

Note 2.— Refer to 4.3 for dangerous goods forbidden for transport by air under any circumstances.

Note 3.— It is not intended that this regulation be interpreted as requiring an operator to transport a particular article or substance or as preventing an operator from adopting special requirements on the transport of a particular article or substance.

2.2 Dangerous Goods Technical Instructions

2.2.1 CAD will take the necessary measures to achieve compliance with the detailed provisions contained in the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council. CAD will also take the necessary measures to achieve compliance with any amendment to the Technical Instructions which may be published during the specified period of applicability of an edition of the Technical Instructions

2.3 Reserved

2.4 Exceptions

2.4.1 Articles and substances which would otherwise be classed as dangerous goods but which are required to be aboard the aircraft in accordance with the pertinent airworthiness requirements and operating regulations, or for those specialized purposes identified in the Technical Instructions, are excepted from the provisions of this regulation.

2.4.2 Where articles and substances intended as replacements for those described in 2.4.1 or which have been removed for replacement are carried on an aircraft, they shall be transported in accordance with the provisions of this regulation except as permitted in the Technical Instructions.

2.4.3 Specific articles and substances carried by passengers or crew members are excepted from the provisions of this regulation to the extent specified in the Technical Instructions.

2.5 Reserved

2.6 Reserved

2.7 Reserved

CHAPTER 3. CLASSIFICATION

The classification of an article or substance shall be in accordance with the provisions of the Technical Instructions.

Note.— The detailed definitions of the classes of dangerous goods are contained in the Technical Instructions. These classes identify the potential risks associated with the transport of dangerous goods by air and are those recommended by the United Nations Committee of Experts on the Transport of Dangerous Goods.

CHAPTER 4. LIMITATION ON THE TRANSPORT OF DANGEROUS GOODS BY AIR

4.1 Dangerous goods permitted for transport by air

The transport of dangerous goods by air shall be forbidden except as established in this regulations and the detailed specifications and procedures provided in the Technical Instructions.

4.2 Dangerous goods forbidden for transport by air unless exempted

The dangerous goods described hereunder shall be forbidden on aircraft unless exempted by the CAD or unless the provisions of the Technical Instructions indicate they may be transported under an approval issued by the State of Origin:

- a) articles and substances that are identified in the Technical Instructions as being forbidden for transport in normal circumstances; and
- b) infected live animals.

4.3 Dangerous goods forbidden for transport by air under any circumstances

Articles and substances that are specifically identified by name or by generic description in the Technical Instructions as being forbidden for transport by air under any circumstances shall not be carried on any aircraft.

CHAPTER 5. PACKING

5.1 General requirements

Dangerous goods shall be packed in accordance with the provisions of this chapter and as provided for in the Technical Instructions.

5.2 Packagings

5.2.1 Packagings used for the transport of dangerous goods by air shall be of good quality and shall be constructed and securely closed so as to prevent leakage which might be caused in normal conditions of transport, by changes in temperature, humidity or pressure, or by vibration.

5.2.2 Packagings shall be suitable for the contents. Packagings in direct contact with dangerous goods shall be resistant to any chemical or other action of such goods.

5.2.3 Packagings shall meet the material and construction specifications in the Technical Instructions.

5.2.4 Packagings shall be tested in accordance with the provisions of the Technical Instructions.

5.2.5 Packagings for which retention of a liquid is a basic function, shall be capable of withstanding, without leaking, the pressure stated in the Technical Instructions.

5.2.6 Inner packagings shall be so packed, secured or cushioned as to prevent their breakage or leakage and to control their movement within the outer packaging(s) during normal conditions of air transport. Cushioning and absorbent materials shall not react dangerously with the contents of the packagings.

5.2.7 No packaging shall be re-used until it has been inspected and found free from corrosion or other damage. Where a packaging is re-used, all necessary measures shall be taken to prevent contamination of subsequent contents.

5.2.8 If, because of the nature of their former contents, uncleaned empty packagings may present a hazard, they shall be tightly closed and treated according to the hazard they constitute.

5.2.9 No harmful quantity of a dangerous substance shall adhere to the outside of packages.

CHAPTER 6. LABELLING AND MARKING

6.1 Labels

Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be labelled with the appropriate labels and in accordance with the provisions set forth in those Instructions.

6.2 Markings

6.2.1 Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be marked with the proper shipping name of its contents and, when specified in those Instructions.

6.2.2 *Specification markings on packagings.* Unless otherwise provided for in the Technical Instructions, each packaging manufactured to a specification contained in those Instructions shall be so marked in accordance with the appropriate provisions of those Instructions and no packaging shall be marked with a packaging specification marking unless it meets the appropriate packaging specification contained in those Instructions.

6.3 Languages to be used for markings

English shall be used for the markings related to dangerous goods.

CHAPTER 7. SHIPPER'S RESPONSIBILITIES

7.1 General requirements

Before a person offers any package or overpack of dangerous goods for transport by air, that person shall ensure that the dangerous goods are not forbidden for transport by air and are properly classified, packed, marked, labelled and accompanied by a properly executed dangerous goods transport document, as specified in this regulation and the Technical Instructions.

7.2 Dangerous goods transport document

7.2.1 Unless otherwise provided for in the Technical Instructions, the person who offers dangerous goods for transport by air shall complete, sign and provide to the operator a dangerous goods transport document, which shall contain the information required by those Instructions.

7.2.2 The transport document shall bear a declaration signed by the person who offers dangerous goods for transport indicating that the dangerous goods are fully and accurately described by their proper shipping names and that they are classified, packed, marked, labelled, and in proper condition for transport by air in accordance with the relevant regulations.

7.3 Languages to be used

English shall be used for the dangerous goods transport document.

CHAPTER 8. OPERATOR’S RESPONSIBILITIES

8.1 Acceptance for transport

An operator shall not accept dangerous goods for transport by air:

- a) unless the dangerous goods are accompanied by a completed dangerous goods transport document, except where the Technical Instructions indicate that such a document is not required; and
- b) until the package, overpack or freight container containing the dangerous goods has been inspected in accordance with the acceptance procedures contained in the Technical Instructions.

Note 1.— See Chapter 12 concerning the reporting of dangerous goods accidents and incidents.

Note 2.— Special provisions relating to the acceptance of overpacks are contained in the Technical Instructions.

8.2 Acceptance checklist

An operator shall develop and use an acceptance checklist as an aid to compliance with the provisions of 8.1.

8.3 Loading and stowage

Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be loaded and stowed on an aircraft in accordance with the provisions of the Technical Instructions.

8.4 Inspection for damage or leakage

8.4.1 Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be inspected for evidence of leakage or damage before loading on an aircraft or into a unit load device. Leaking or damaged packages, overpacks or freight containers shall not be loaded on an aircraft.

8.4.2 A unit load device shall not be loaded aboard an aircraft unless the device has been inspected and found free from any evidence of leakage from, or damage to, any dangerous goods contained therein.

8.4.3 Where any package of dangerous goods loaded on an aircraft appears to be damaged or leaking, the operator shall remove such package from the aircraft, or arrange for its removal by an appropriate authority or organization, and thereafter shall ensure that the remainder of the consignment is in a proper condition for transport by air and that no other package has been contaminated.

8.4.4 Packages or overpacks containing dangerous goods and freight containers containing radioactive materials shall be inspected for signs of damage or leakage upon unloading from the aircraft or unit load device. If evidence of damage or leakage is found, the area where the dangerous goods or unit load device were stowed on the aircraft shall be inspected for damage or contamination.

8.5 Loading restrictions in passenger cabin or on flight deck

Dangerous goods shall not be carried in an aircraft cabin occupied by passengers or on the flight deck of an aircraft, except in circumstances permitted by the provisions of the Technical Instructions.

8.6 Removal of contamination

8.6.1 Any hazardous contamination found on an aircraft as a result of leakage or damage to dangerous goods shall be removed without delay.

8.6.2 An aircraft which has been contaminated by radioactive materials shall immediately be taken out of service and not returned to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.

8.7 Separation and segregation

8.7.1 Packages containing dangerous goods which might react dangerously one with another shall not be stowed on an aircraft next to each other or in a position that would allow interaction between them in the event of leakage.

8.7.2 Packages of toxic and infectious substances shall be stowed on an aircraft in accordance with the provisions of the Technical Instructions.

8.7.3 Packages of radioactive materials shall be stowed on an aircraft so that they are separated from persons, live animals and undeveloped film, in accordance with the provisions in the Technical Instructions.

8.8 Securing of dangerous goods cargo loads

When dangerous goods subject to the provisions contained herein are loaded in an aircraft, the operator shall protect the dangerous goods from being damaged, and shall secure such goods in the aircraft in such a manner that will prevent any movement in flight which would change the orientation of the packages. For packages containing radioactive materials, the securing shall be adequate to ensure that the separation requirements of 8.7.3 are met at all times.

8.9 Loading on cargo aircraft

Except as otherwise provided in the Technical Instructions, packages of dangerous goods bearing the "Cargo aircraft only" label shall be loaded in such a manner that a crew member or other authorized person can see, handle and, where size and weight permit, separate such packages from other cargo in flight.

CHAPTER 9. PROVISION OF INFORMATION

9.1 Information to pilot-in-command

The operator of an aircraft in which dangerous goods are to be carried shall provide the pilot-in-command as early as practicable before departure of the aircraft with written information as specified in the Technical Instructions.

9.2 Information and instructions to flight crew members

The operator shall provide such information in the Operations Manual as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.

9.3 Information to passengers

Operators shall ensure that information is promulgated in such a manner that passengers are warned as to the types of dangerous goods which they are forbidden from transporting aboard an aircraft as provided for in the Technical Instructions.

9.4 Information to other persons

Operators, shippers or other organizations involved in the transport of dangerous goods by air shall provide such information to their personnel as will enable them to carry out their responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.

9.5 Information from pilot-in-command to aerodrome authorities

If an in-flight emergency occurs, the pilot-in-command shall, as soon as the situation permits, inform the appropriate air traffic services unit, for the information of aerodrome authorities, of any dangerous goods on board the aircraft, as provided for in the Technical Instructions.

9.6 Information in the event of an aircraft accident or incident

9.6.1 In the event of:

- a) an aircraft accident; or
- b) a serious incident where dangerous goods carried as cargo may be involved, the operator of the aircraft carrying dangerous goods as cargo shall provide information, without delay, to emergency services responding to the accident or serious incident about the dangerous goods on board, as shown on the written information to the pilot-in-command. As soon as possible, the operator shall also provide this information to CAD and the appropriate authorities of the State in which the accident or serious incident occurred.

9.6.2 In the event of an aircraft incident, the operator of an aircraft carrying dangerous goods as cargo shall, if requested to do so, provide information without delay to emergency services responding to the incident and to the appropriate authority of the State in which the incident occurred, about the dangerous goods on board, as shown on the written information to the pilot-in-command.

Note.— The terms “accident”, “serious incident” and “incident” are as defined in MCAR 12.

CHAPTER 10. ESTABLISHMENT OF TRAINING PROGRAMMES

All operators shall ensure that Dangerous goods training programmes are established and updated as provided for in the Technical Instructions.

CHAPTER 11. COMPLIANCE

11.1 Inspection systems

Operators will be inspected, survey and enforcement actions will be carried out with a view to achieving compliance with these regulations.

11.2 Cooperation between States

CAD would participate in cooperative efforts with other States concerning violations of dangerous goods regulations, with the aim of eliminating such violations. Cooperative efforts could include coordination of investigations and enforcement actions; exchanging information on a regulated party's compliance history; joint inspections and other technical liaisons, exchange of technical staff, and joint meetings and conferences. Appropriate information that could be exchanged include safety alerts, bulletins or dangerous goods advisories; proposed and completed regulatory actions; incident reports; documentary and other evidence developed in the investigation of incidents; proposed and final enforcement actions; and educational/ outreach materials suitable for public dissemination.

11.3 Penalties

11.3.1 CAD will take such measures as deemed appropriate to achieve compliance with these regulations including the prescription of appropriate penalties for violations.

11.3.2 Reserved

11.4 Reserved

CHAPTER 12. DANGEROUS GOODS ACCIDENT AND INCIDENT REPORTING

12.1 With the aim of preventing the recurrence of dangerous goods accidents and incidents, CAD has established procedures under MCAR-12 and Air Safety Circular, ASC -002 (Safety Management System) for investigating and compiling information concerning such accidents and incidents which occur in the Maldivian territory and which involve the transport of dangerous goods originating in or destined for another State. Reports on such accidents and incidents shall be made in accordance with the detailed provisions of the Technical Instructions.

12.2 Reserved

12.3 With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo, Operators shall establish procedures for investigating and compiling information concerning such occurrences which occur in the territory of Maldives and which involve the transport of dangerous goods originating in or destined for another State. Reports on such instances shall be made in accordance with the detailed provisions of the Technical Instructions.

12.4 Reserved

CHAPTER 13. DANGEROUS GOODS SECURITY PROVISIONS

CAD has established dangerous goods security measures under National Civil Aviation Security Programme, applicable to shippers, operators and other individuals engaged in the transport of dangerous goods by air, to be taken to minimize theft or misuse of dangerous goods that may endanger persons, property or the environment. These measures will commensurate with security provisions specified in other regulations and the Technical Instructions.