

PART IX

MISCELLANEOUS SYSTEMS AND EQUIPMENT

Applicability of Part IX

54. This Part prescribes the minimum requirements for miscellaneous systems and equipment on aircraft in Trinidad and Tobago.

Applicability
of Part IX

Seats, Safety Belts and Shoulder Harnesses

55. (1) An air operator shall not conduct passenger carrying operations on an aircraft unless such aircraft is equipped with the following seats, safety belts and shoulder harness that meet the airworthiness requirements for type certification of that aircraft:

Seats, safety
belts and
shoulder
harnesses

- (a) a seat or berth for each person on board such aircraft over the age of two years;
- (b) a seat belt for each seat and a restraining belt for each berth;
- (c) an approved safety belt for use by two occupants during en route flight only for a berth designed to be occupied by two persons, such as a multiple lounge or divan seat;
- (d) a combination safety belt and shoulder harness, for each flight crew seat which shall incorporate a device that will automatically restrain the torso of the occupant to prevent interference with the flight controls in the event of rapid decompression and sudden incapacitation of the pilot; and
- (e) forward or rearward-facing seat, fitted with a safety harness for the use of each cabin crew required to be carried on board.

(2) The cabin crew seats referred to in subregulation (1)(e), shall be located near floor level and at different emergency exits to facilitate evacuation as required by the Authority.

Passenger and Pilot Compartment Doors Safety and Security Requirements

56. (1) An air operator shall not conduct passenger-carrying operations in an aeroplane unless such aeroplane has a—

- (a) key for each door that separates a passenger compartment from another compartment that has emergency exit provisions;
- (b) means for the crew, in an emergency situation, to unlock each door that leads to a compartment that is normally accessible to passengers that can be locked by passengers; and

Passenger
and pilot
compartment
doors safety
requirement

- (c) placard on each door used to access a required passenger emergency exit, indicating that such door shall be opened during take-off and landing.

(1A) Where an aeroplane is equipped with a flight crew compartment door, an air operator shall ensure that such door is capable of being locked and that there is a means by which cabin crew can discretely notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(2) An air operator shall ensure that when conducting passenger-carrying operations with an aeroplane of a maximum certified take-off mass in excess of forty-five thousand five hundred kilogrammes or with a seating capacity greater than sixty, such aeroplane is equipped with an approved flight crew compartment door that is designed to resist penetration by small arms fire and grenade shrapnel and to resist forcible intrusion by unauthorized persons.

(3) An air operator conducting passenger carrying operations under subregulation (2), shall provide a means for monitoring from the station of each pilot, the entire door area outside the flight crew compartment to identify persons requesting entry and detect suspicious behaviour or potential threat.

(4) An air operator shall ensure that an aeroplane in which he conducts or intends to conduct operations, which is equipped with a flight crew compartment door required under subregulation (2), shall be capable of being locked and unlocked from the station of each pilot.

Passenger Information Signs

57. (1) An air operator shall not conduct passenger carrying operations on an aircraft, unless such aircraft is equipped with passenger information signs using either letters or symbol displays to ensure that the following information and instructions are conveyed to passengers:

- (a) when seatbelts or harnesses are to be fastened;
- (b) when and how oxygen is to be used where the carriage of oxygen is required to be carried on such aircraft;
- (c) restriction on smoking;
- (d) location and use of life jackets or equivalent individual flotation devices where their carriage is required; and
- (e) location and method of opening emergency exits.

(2) An air operator shall ensure that passenger information sign under subregulation (1), when illuminated, is legible to each person seated in the passenger cabin under all probable conditions of cabin illumination.

Passenger
information
signs

(3) An air operator shall ensure that illuminated “No Smoking” and “Fasten Seatbelt” signs can be turned on and off by the crew.

(4) An air operator shall ensure that a sign or placard that reads “Fasten Seat Belt While Seated” shall be affixed to each forward bulkhead and each passenger seat back.

Public Address System Requirement

58. (1) An air operator shall not conduct passenger carrying operations on an aeroplane with a maximum approved passenger seating configuration of more than nineteen or a helicopter with an approved passenger seating configuration of more than nine, unless a public address system is installed—

Public
address
system
requirement

- (a) which operates independently of the interphone systems except for hand-sets, microphones and the selector switch signalling devices;
- (b) for each required floor level passenger emergency exit that has an adjacent cabin crew seat, has a microphone which is readily accessible to seated cabin crew member, except where one microphone serves more than one exit, and the proximity of the exits allows unassisted verbal communication between seated cabin crew members;
- (c) that is capable of operating within ten seconds of being selected on by a cabin crew member at each of those stations in the compartment from which its use is accessible; and
- (d) that is audible and intelligible from all passenger seats, toilets, cabin crew seats and workstations.

(2) Notwithstanding subregulation (1), in the case of a helicopter with a maximum approved passenger seating configuration of more than nine but less than nineteen, a public address system is not required where-

- (a) the helicopter is designed without a bulkhead between the pilot and passengers; and
- (b) the operator is able to demonstrate that when in flight the voice of the pilot is audible and intelligible at all passengers seats.

Material for Cabin Interiors

59. (1) An air operator shall ensure that where materials in each compartment of an aeroplane in which he conducts or intends to conduct operations, used by the crew or passengers do not meet the current airworthiness requirements of materials to be used in the interior of cabin, for the applicable airworthiness requirements for the aeroplane type in the transport category, such materials are replaced with materials that meet the airworthiness requirements of such aeroplane type, upon the first major overhaul of such aeroplane or refurbishment of such cabin interior.

Airworthiness
requirement
for materials
for cabin
interiors

(2) An air operator shall ensure that all seat cushions, except those of flight crew member seats, in any compartment of an aeroplane on which he conducts or intends to conduct operations, which is occupied by crew or passengers meets the requirements pertaining to fire protection as specified by the airworthiness requirements for the aeroplane type.

Materials for Cargo and Baggage Compartments

Ceiling and liner materials for cargo and baggage compartments

60. (1) Where an air operator conducts operations in a transport category aeroplane type certified after 1st January, 1958, with a Class C or D cargo compartment greater than two hundred cubic feet in volume, he shall ensure that such aeroplane has ceiling and sidewall liner panels that are constructed of—

- (a) glass fiber reinforced resin;
- (b) materials which meet the test requirements for flame resistance of cargo compartment liners required for the applicable type certificate; or
- (c) aluminum, where the installations were approved prior to 20th March, 1989.

(2) The term “liners” referred to in this regulation, includes any design feature, such as joint or fastener, which would affect the capability of the liner to safely contain a fire.

Power Supply Distribution and Indication System

Power supply, distribution and indication system

61. (1) An air operator shall not conduct passenger carrying operations on an aeroplane unless such aeroplane is equipped with—

- (a) a power supply and distribution system that meets the airworthiness requirements for certification of an aeroplane in the transport category, as specified by the Authority; or
- (b) a power supply and distribution system that has the capability to produce and distribute the power supply to the required instruments and equipment, with use of an external power supply if any one power source or component of the power distribution system fails; and
- (c) a means for indicating the adequacy of the power being supplied to required flight instruments.

(2) An air operator shall ensure that when engine-driven sources of energy are used for the power supply required in subregulation (1), they shall be on separate engines.

Protective Circuit Fuses

62. An air operator shall not conduct passenger carrying operations on an aircraft on which protective fuses are installed, unless such aircraft has spare fuses available for use in flight equal to at least 10% of the number of fuses for each rating or three of each rating, whichever is the greater.

Spare protective circuit fuses

Icing Protection Equipment

63. (1) An operator shall not operate an aircraft in icing conditions unless such aircraft—

Icing protection equipment

- (a) is certified by the State of Design in respect of the airworthiness requirements for ice protection for transport category aircraft; and
- (b) is equipped for the prevention or removal of ice on the windshields, wings, empennage, propellers, and other parts of the aircraft where ice formation will adversely affect the safe operation of the aircraft.

(2) An air operator shall not operate an aircraft in expected or actual icing conditions at night, unless such aircraft is equipped with a means to illuminate or detect the formation of ice.

(3) Where illumination is used under subregulation (2) such illumination shall be of a type that will not cause glare or reflection that would hamper a crew member in the performance of his duties.

Pitot Indication Systems

64. An air operator shall not operate an aircraft equipped with a flight instrument pitot heating system, unless such aircraft is equipped with an operable pitot heat indication system except where such pitot heat indication system is not required to be installed by the applicable airworthiness code of the State of Design of the aircraft that complies with the following requirements:

Pitot heat indicator systems

- (a) the indication system provided shall incorporate an amber light that is in clear view of the flight crew; and
- (b) the indication system provided shall be designed to alert the flight crew if either—
 - (i) the pitot heat system is switched off; or
 - (ii) the pitot heat system is switched on and any pitot heater tube heating elements is inoperative.

Static Pressure System

Independent
static
pressure
system

65. An air operator shall not operate an aircraft unless such aircraft has two independent static pressure systems—

- (a) vented to the outside atmospheric pressure to ensure that the effect on such static pressure systems by airflow variation or moisture or other foreign matter is minimal; and
- (b) installed so as to be airtight except for the vent.

Windshield Wipers

Windshield
wipers

66. An air operator shall not operate an aircraft unless such aircraft is equipped with—

- (a) a windshield wiper on the windshield of such aircraft which corresponds to each pilot station; or
- (b) an equivalent means, to maintain a clear portion of the windshield during precipitation to allow for clear forward vision a clear portion of the windshield during precipitation.

Chart Holder

Chart holder

67. An air operator shall not conduct operations on an aeroplane unless such aeroplane has a chart holder installed in an easily readable position, which can be illuminated for night operations.

Cosmic Radiation Measuring Equipment

Cosmic
radiation
measuring
equipment

68. (1) An air operator shall not conduct operations in an aeroplane above forty-nine thousand feet unless such aeroplane is equipped with an instrument to continuously measure and indicate to flight crew the dose rate of total cosmic radiation being received and the cumulative dose on each flight.

(2) The display of instrument under subregulation (1) shall be readily visible to members of the flight crew.

Maritime Sound Signaling Device

Maritime
sound
signaling
device

69. An operator shall not conducted operations in a seaplane unless such seaplane is equipped with equipment for making the sound signals prescribed by the International Regulations for Preventing Collisions at Sea or the Shipping (Distress signals and Prevention of Collision) Regulations, 1999.

No. 1242 of
1990

Anchors

70. An operator shall not conduct operations in a seaplane or an amphibian, unless such seaplane or amphibian is equipped with a sea anchor and other equipment necessary to facilitate mooring, anchoring or manoeuvring the aircraft on water, appropriate to its size, weight and handling characteristics.

Anchors

Airborne Collision Avoidance System

71. (1) An air operator shall not conduct operations in a turbine-engined aeroplane of a maximum certified take-off mass in excess of fifteen thousand kilogrammes and having a maximum approved passenger seating configuration of more than thirty passengers, unless such aeroplane is equipped with an airborne collision avoidance system.

Airborne
collision
avoidance
system

(2) An air operator shall not conduct operations in a turbine-engined aeroplane with a maximum certified take-off mass in excess of fifteen thousand kilogrammes or having a maximum approved passenger seating configuration of more than nineteen passengers after 31st December, 2004, unless such turbine-engined aeroplane is equipped with an airborne collision avoidance system.

(3) The Authority may prescribe the manner in which an airborne collision avoidance system under this regulation shall operate.

Pressure Altitude Reporting Transponder

72. (1) An operator of an aeroplane or helicopter engaged in commercial air transport operations shall ensure that the aeroplane or helicopter is equipped with a pressure-altitude reporting transponder which operates in accordance with the relevant provision of Volume IV of Annex 10 to the Convention on International Civil Aviation.

Pressure
Altitude
Reporting
Transponder

(2) Aeroplanes specified under subregulation (1) for which the individual certificate of airworthiness is first issued after 1st January 2009, shall be equipped with a data source that provides pressure-altitude information with a resolution no greater than 7.26 metres or 25 feet.

(3) After 1st January 2012, an operator of an aeroplane engaged in commercial air transport operations shall ensure that the aeroplane or helicopter is equipped with a data source that provides pressure-altitude information with a resolution no greater than 7.26 metres or 25 feet.

(4) An operator of an aircraft or helicopter not engaged in commercial air transport operations shall ensure that the aeroplane or helicopter is equipped with a pressure-altitude reporting transponder which operates in accordance with the relevant provision of Volume IV of Annex 10 to the Convention on International Civil Aviation.

(5) Where the situation warrants such action, the Director General may recommend the Authority exempt an operator from the requirements of subregulation (4).

Implementing Standards

Implementing
Standards
Schedule 4

73. An air operator in meeting the requirements of Regulations 12, 38 and 46, shall ensure that he complies with the minimum implementing standards set out in Schedule 4.

Director General may amend Schedules

Director
General
amend
Schedules

74. The Director General may by Order amend any of the Schedules.

Commencement

Commencement

75. (1) The requirements of these Regulations shall come into effect ten months from the date of publication of these Regulations.

(2) Notwithstanding the requirements of subregulation (1), a person who on the commencement of these Regulations operates an aircraft with instruments and equipment applicable to a valid Airworthiness Certificate, may continue to operate his aircraft with such instruments and equipment under the conditions of his existing Airworthiness Certificate, until 24th September, 2005 and thereafter shall meet the requirements of these Regulations.

(3) Notwithstanding subregulation (2), an operator of an aircraft of maximum certified take – off mass of less than 20,000 kilogrammes shall meet the requirements of these Regulations on or before 1st October, 2009.