



**CIVIL AVIATION SAFETY AUTHORITY OF PNG**

**PNG**

**Civil Aviation Rules**

**Part 26**

**Additional Airworthiness Requirements**

Original Rule Effective 1 January 2004, incorporates Amendment 3 dated 1 October 2010 and effective 1 January 2011.

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## Subpart A — General

### 26.1 Applicability

This Part prescribes airworthiness requirements that are additional to the airworthiness requirements prescribed in any other Part for a Papua New Guinea registered aircraft.

## Subpart B — Additional Airworthiness Requirements

### 26.51 Additional airworthiness requirements

Airworthiness requirements additional to those prescribed in Part 21 are prescribed in—

- (1) Appendix A for every aircraft; and
- (2) Appendix B for aeroplanes with a type certificated seating capacity of more than 9 passenger seats; and
- (3) Appendix C for aeroplanes with a type certificated seating capacity of more than 19 passenger seats; and
- (4) Appendix D for helicopters.

### 26.53 Application of additional airworthiness requirements

(a) The additional airworthiness requirements as prescribed in rule 26.51 apply only to the stated class, category, or type of aircraft, or component and, except as provided in paragraph (b), must be complied with by—

- (1) an applicant for an airworthiness certificate; and
- (2) an applicant for the approval of technical data under 21.95.
- (3) the holder of a Papua New Guinea certificate of registration

(b) An additional airworthiness requirement that is not complied with must be compensated for by a factor that provides an equivalent level of safety acceptable to the Director.

(c) The instruments and equipment required to meet the additional airworthiness requirements of this Part must be installed in accordance with the aircraft manufacturer's instructions or other applicable instructions acceptable to the Director, and must be in operable condition, unless otherwise approved in an MEL under rule 91.539, as applicable to the aircraft.

### 26.55 Excepted Aircraft

(a) The DHC6-200 aircraft is exempt from the following requirements:

- (1) Appendix B item B.2.1(b)(2) in respect of the number of emergency exits additional to the passenger entrance door; and
- (2) Appendix B item B.2.2(2) in respect of the requirement for a means to assist occupants to descend to the ground from the roof hatch exit.

- (b) The DHC6-300 aircraft is exempt from the requirement of Appendix B item B.2.1(d) in respect of the requirement that emergency exits be openable from the outside.
- (c) For the avoidance of doubt, the roof hatch in the DHC6-200 and the flight crew access doors in the DHC6-200 and the DHC6-300 do not qualify as emergency exits for the purpose of compliance with the requirements of this Part.
- (d) Aircraft certificated to USA Civil Air Regulations Part 3 are exempt from the requirements of Appendix B item B.1(1) in respect of the requirement for every external door and exit to be operable from the outside.

## Appendix A — All Aircraft

Certification of an aircraft requires compliance with the following additional airworthiness requirements:

### A.1 Marking of doors and emergency exits

- (a) Every normal and emergency exit shall be clearly and conspicuously marked with the means of opening the exit and as EXIT or EMERGENCY EXIT as applicable—
  - (1) on both the inside and outside of the exit; or
  - (2) on both the inside and outside of the aircraft on a surface adjacent to the exit.
- (b) All instructions for operation of the exits required by paragraph (a) shall be—
  - (1) concise; and
  - (2) in easily readable letters on a contrasting background.

## Appendix B — Aeroplanes with a Type Certificated Seating Capacity of More Than 9 Passengers

In addition to complying with the requirements of Appendix A, certification of an aeroplane with a type certificated seating capacity of more than 9 passengers, requires compliance with the following additional airworthiness requirements:

### B.1 Doors and exits

Every external door and exit shall—

- (1) be operable from the inside and, except for sliding window exits in the flight crew compartment, operable from the outside; and
- (2) be unobstructed by seats, seat backs, or other equipment; and
- (3) have a means—
  - (i) of locking that prevents inadvertent opening in flight by persons or as a result of mechanical failure; and

- (ii) when the initial opening movement of the door is outwards, for the crew members to directly view the locking mechanism to determine that the door is fully closed and locked; and
- (iii) when the door is normally used to load and unload the aeroplane, of visually indicating to the crew members that the door is not fully closed and locked.

## **B.2 Evacuation and egress provisions**

### ***B.2.1 Additional emergency exits***

(a) The passenger entrance door must qualify as a floor level emergency exit. If an integral stair is installed at such a passenger entrance door, it must be designed so that when subject to the inertia forces specified in the airworthiness design standard for the aeroplane and following the collapse of one or more legs of the landing gear, it will not interfere to an extent that will reduce the effectiveness of emergency egress through the passenger entry door.

(b) In addition to the passenger entrance door, an aeroplane with a type certificated seating capacity of less than 16 passengers, must be equipped with an emergency exit on each side of the fuselage which meets the requirements of paragraph (d).

(c) In addition to the passenger entrance door, an aeroplane with a type certificated seating capacity of between 16 and 23 passengers, must be equipped with the following emergency exits meeting the requirements of paragraph (d):

- (1) one exit on the same side as the passenger entrance door; and
- (2) two exits on the side opposite the passenger entrance door—  
meeting the requirements of paragraph (c).

(d) An emergency exits must be a moveable window, panel, canopy, or external door, openable from both inside and outside the aeroplane, that provide a clear and unobstructed opening large enough to admit a 19-by-26 inch ellipse. Auxiliary locking devices used to secure the aeroplane must be designed to be overridden by the normal internal opening means. In addition, every emergency exit must—

- (1) be readily accessible, requiring no exceptional agility to be used in emergencies; and
- (2) have a method of opening that is simple and obvious; and
- (3) be arranged and marked for easy location and operation, even in darkness; and
- (4) have reasonable provisions against jamming by fuselage deformation.

### ***B.2.2 Emergency exit evacuation equipment***

Every emergency exit required for the type certification of the aircraft must—

- (1) be located over the wing; or
- (2) for exits 2m or more from the ground with the aeroplane on the ground and the landing gear extended, have a means of assisting the occupants to descend to the ground.

### **B.2.3** *Emergency exit interior marking*

Every emergency exit must be identified by a sign that —

- (1) has the word EXIT in—
  - (i) 25 mm high white letters on a 50 mm high red background; or
  - (ii) 25 mm high red letters on a 50 mm high white background; and
- (2) is self illuminating or is electrically illuminated independently from the main lighting system; and
- (3) has a minimum brightness of 160 microlamberts.

## **B.3** **Systems and equipment**

### **B.3.1** *Landing gear aural warning.*

- (a) Every aeroplane equipped with wing flaps and retractable landing gear must have a landing gear aural warning device.
- (b) Except as provided by paragraph (c), every landing gear aural warning device must—
  - (1) function continuously when the wing flaps are extended to a normal position for landing in preparation for landing, and the landing gear is not fully extended and locked; and
  - (2) not have a manual shut off.
- (c) Paragraph (b)(2) does not apply to amphibious aeroplanes where the flight crew members have adequate visual indication that the aircraft is configured for a water landing.

## **Appendix C — Aeroplanes with a Type Certificated Seating Capacity Of More Than 19 Passengers**

In addition to complying with the requirements of Appendices A and B, certification of an aeroplane with a type certificated seating capacity of more than 19 passengers requires compliance with the following airworthiness requirements:

### **C.1** **Doors and exits**

#### **C.1.1** *Exit types*

- (a) Exit types shall be those specified in FAR 25.807 in effect on 29 March 1993.
- (b) For an aeroplane with a type certificated seating capacity of more than 23 passengers, exits must meet the requirements for certification of that aeroplane type.

#### **C.1.2** *Floor level exits*

Other than exits that lead into a cargo or baggage compartment that is not accessible from the passenger cabin, every floor level exit in the side of the fuselage must meet the requirements for floor level emergency exits if that exit is—

- (1) greater than 1090 mm high and between 490 mm and 1150 mm wide; or
- (2) a ventral exit; or
- (3) a tail cone exit.

## **C.2 Evacuation and egress provisions**

### ***C.2.1 Additional emergency exits***

- (a) Emergency exits in the passenger compartments that are in excess of the number required for the type certification of the aircraft must—
  - (1) meet all of the applicable provisions of this appendix; and
  - (2) be readily accessible.
- (b) Every ventral exit and each tailcone exit of a turbojet powered aeroplane shall be—
  - (1) designed and constructed so that it cannot be opened during flight; and
  - (2) marked with a placard that—
    - (i) states that the exit cannot be opened during flight; and
    - (ii) is readable from a distance of 750 mm; and
    - (iii) is installed at a conspicuous location near the means of opening the exit.

### ***C.2.2 Emergency exit access***

- (a) Except for additional emergency exits, access must be provided to aeroplane emergency exits that ensures that—
  - (1) every passageway—
    - (i) between individual passenger areas; and
    - (ii) leading to a Type I or Type II emergency exit; and
  - (2) there is enough space next to every Type I and Type II emergency exit to allow a crew member to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below 500 mm; and
  - (3) access from the main aisle to each Type III and Type IV exit is unobstructed by seats, berths, or other protrusions that would reduce the effectiveness of the exit; and
  - (4) every door separating a passenger compartment from an emergency exit has—
    - (i) a means to latch the door in the open position during takeoff and landing which can withstand the ultimate inertia forces, relative to the surrounding structure, as specified in the certification design standards; and
    - (ii) a placard indicating that the door must be open during takeoff and landing.

- (b) Except for curtains that allow free entry through a passageway, every passageway between passenger compartments that leads to an emergency exit must not be obstructed.
- (c) No door may be installed in any partition between passenger compartments.

*(Note: The definitions of Types I to IV exits are contained in the relevant Advisory Circular)*

### **C.2.3 Emergency exit operating handles**

- (a) Except as provided in paragraph (b), an aeroplane must be marked on or near each exit with—
  - (1) markings readable from a distance of 750 mm; and
  - (2) the location of each passenger emergency exit operating handle; and
  - (3) the instructions for opening the exit including for each Type I and Type II emergency exit with a locking mechanism released by rotary motion of the handle—
    - (i) a red arrow with a shaft at least 20 mm wide and a head twice the width of the shaft, extending along at least 70° of arc at radius approximately equal to three-fourths of the handle length; and
    - (ii) the word OPEN in red letters 25 mm high placed horizontally near the head of the arrow.
- (b) An aeroplane type certificated on or after 1 May 1972 must be marked in accordance with the requirements for certification of that aeroplane type.
- (c) Every operating handle and operating handle cover must have a minimum brightness of 100 microlamberts.

### **C.2.4 Emergency exit evacuation equipment**

- (a) Except as provided in paragraph (b), every emergency exit must have a means of assisting an occupant to descend to the ground that meets the requirements for the certification of that aeroplane type that was in effect on 30 April 1972.
- (b) For an aeroplane type certificated on or after 1 May 1972 every emergency exit must have a means of assisting the occupant to descend to the ground that meets the requirements for the certification of that aeroplane type.
- (c) If the means of assisting the occupant to descend to the ground required in paragraphs (a) and (b) deploys automatically, it must be capable of being armed during taxiing, takeoff, and landing.

### **C.2.5 Emergency exit escape route**

- (a) Except as provided in paragraph (b), every aeroplane must have a slip-resistant escape route that meets the requirements for certification of the aeroplane type that was in effect on 30 April 1972.
- (b) Every aeroplane type certificated on or after 1 May 1972 must have a slip-resistant escape route that meets the requirements for certification of that aeroplane type.

### **C.2.6 Emergency lighting**

- (a) Every light required for an emergency lighting system must—
- (1) have a cockpit control device that has an ON, OFF, and ARMED position; and
  - (2) be operable manually from—
    - (i) the flight crew members normally seated position; and
    - (ii) a point in the passenger compartment that is readily accessible to a normal flight attendant seat; and
  - (3) have a means to prevent inadvertent operation of the manual controls; and
  - (4) when armed or turned on, remain lighted or become lighted upon interruption of the normal electric power supply except in the case of a transverse vertical separation of the fuselage; and
  - (5) provide the required level of illumination for at least 10 minutes at the critical ambient conditions after emergency landing.
- (b) Lights that form part of a means of assisting occupants to descend to the ground do not have to meet the requirements in paragraph (a) if they—
- (1) serve only one means of assistance; and
  - (2) are automatically activated when the means of assistance is deployed; and
  - (3) are independent of the main emergency lighting system for the aeroplane.

### **C.2.7 Emergency interior lighting**

Every aeroplane must have an emergency lighting system that—

- (1) has a power supply independent of the main lighting system; and
- (2) provides an average illumination in the passenger compartment of at least 0.05 foot-candles when measured at seat armrest height at 1 m intervals on the centreline of the main passenger aisle; and
- (3) illuminates every exit marking and sign; and
- (4) includes floor proximity emergency escape path markings.

### **C.2.8 Emergency exterior lighting**

- (a) Except as provided in paragraph (b), every aeroplane must have emergency exterior lighting that meets the requirements for certification of the aeroplane type that was in effect on 30 April 1972.

(b) Every aeroplane type certificated on or after 1 May 1972 must have emergency exterior lighting that meets the requirements for certification of that aeroplane type.

### **C.2.9 *Emergency exit interior marking***

- (a) Every emergency exit and its means of access must be clearly and conspicuously marked—
- (1) such that its identity and location is recognisable from a distance equal to the width of the cabin; and
  - (2) with its means of opening.
- (b) The location of every passenger emergency exit shall be indicated by signs visible to occupants approaching along the main passenger aisle—
- (1) above the exit route near every over-the-wing passenger emergency exit; and
  - (2) next to every floor level emergency exit, except that one sign may serve two such exits if they both can be seen readily from that sign; and
  - (3) on every bulkhead or divider that prevents fore and aft vision along the passenger compartment, indicating emergency exits obscured by it.
- (c) Except as provided in paragraph (d), every aeroplane must have emergency exit markings and signs that meet the requirements for the certification of the aeroplane type that were in effect on 30 April 1972.
- (d) Every aeroplane type certificated on or after 1 May 1972 must have emergency exit markings and signs that meet the requirements for the certification of the aeroplane type.
- (e) Every emergency exit marking and sign must have a minimum brightness of 250 microlamberts.
- (f) Every Type III exit must be marked with the exit weight and instructions that after the exit is opened it must be ejected outside the fuselage.

### **C.2.10 *Emergency exit exterior markings***

Every emergency exit operable from the outside must be marked—

- (1) with a continuous 50 mm wide coloured band outlining the exit that—
  - (i) shall differ in colour from the surrounding surface such as to achieve visual contrast; and
  - (ii) may be on the edge of the exit, on the surface surrounding the exit, or partially on both; and
- (2) with the means of opening and applicable instructions in red or in bright chrome yellow; and
- (3) if the exit is not in the side of the fuselage and the means of opening is located on only one side of the fuselage, marked to that effect on the other side of the fuselage.

### **C.3 Lavatory fire protection**

- (a) Every lavatory must be conspicuously marked—
  - (1) on each side of the door with a sign indicating that smoking is not permitted in the lavatory; and
  - (2) on every lavatory paper receptacle door or waste disposal receptacle door with a sign indicating that a cigarette must not be disposed of in the receptacle.
- (b) Except for dedicated non-smoking aeroplanes, every lavatory must be provided with a self contained removable ash tray outside of the entrance to the lavatory or near by.
- (c) Every lavatory paper receptacle or waste disposal receptacle must have a—
  - (1) door fitted that provides a seal to contain a fire within the receptacle; and
  - (2) built-in fire extinguisher designed to discharge automatically upon the occurrence of a fire in the receptacle.
- (d) Every lavatory must be equipped with a smoke detector system or equivalent that provides—
  - (1) a warning light in the cockpit; or
  - (2) a warning light or audio warning that is readily detectable by a crew member during every phases of flight.

### **C.4 Materials for compartment interiors**

- (a) Every aeroplane type certificated on or before 1 January 1958 must, upon the first substantially complete replacement of the cabin interior, be equipped with materials in each compartment used by the crew members or passengers that meet the requirements of FAR Part 25 that was in effect on 30 April 1972.
- (b) Except as provided in paragraph (c), every aeroplane type certificated after 1 January 1958 must—
  - (1) if manufactured on or after 20 August 1988 but before 20 August 1990, be equipped with materials in every compartment used by the crew members or passengers that meet the requirements of the heat release rate tests of FAR Part 25 that was in effect on 29 March 1993 except that the—
    - (i) total heat release over the first 2 minutes of sample exposure shall not exceed 100 kilowatt minutes per square metre; and
    - (ii) peak heat release rate must not exceed 100 kilowatts per square metre; and
  - (2) if manufactured on or after 20 August 1990, be equipped with materials in each compartment used by the crew members or passengers that meet the requirements of the heat release rate and smoke tests of FAR Part 25 in effect on 29 March 1993; and
  - (3) upon the first substantially complete replacement of the cabin interior components, be equipped with materials in each compartment used by the crew members or passengers that meet the requirements of FAR Part 25 that was in effect on 29 March 1993.

(c) Every aeroplane type certificated after 1 January 1958 must be equipped with seat cushions, except those cushions on flight deck seats, that meet the requirements pertaining to fire protection of seat cushions in FAR Part 25 that was in effect on 26 November 1984.

### **C.5 Cargo and baggage compartments**

- (a) Except as provided in paragraph (c), for an aeroplane that is type certified after January 1958-
- (1) a Class C or D cargo or baggage compartment, as defined in FAR 25.857 that was in effect on 16 June 1986, that is greater than 200 cubic feet in volume must have ceiling and sidewall liner panels that are constructed of—
    - (i) glass fibre reinforced resin; or
    - (ii) materials that meet the test requirements of FAR Part 25 Appendix F, Part III; or
    - (iii) aluminium, in the case of liner installations approved prior to 20 March 1989; and
  - (2) a Class D cargo or baggage compartment, as defined in FAR 25.857 that was in effect on 16 June 1986, regardless of volume, must meet the standards for a Class C compartment defined in FAR 25.857(c), effective 17 February 1998, and FAR 25.858, effective 17 February 1998; or
  - (3) if the aeroplane is used for all-cargo operation, a Class D cargo compartment may meet the standards for a Class E cargo compartment defined in FAR 25.857(e), effective 17 February 1998.
- (b) For the purposes of paragraph (a)(1), the term “liner” includes any design feature, such as a joint or fastener, which would affect the capability of the liner to safely contain a fire.

## **Appendix D — Helicopters**

In addition to complying with the requirements of Appendix A, certification of a helicopter intended to be used on air operations requires compliance with the following additional airworthiness requirements:

### **D.1 Doors and exits**

A helicopter must be equipped with external doors and exits that—

- (1) are operable from the inside and the outside; and
- (2) are unobstructed by seats, seat backs, or other equipment; and
- (3) have a means—
  - (i) of locking that prevents inadvertent opening in flight by persons or as a result of mechanical failure; and
  - (ii) of visually indicating to the crew members that the door is not fully closed and locked.

## **D.2 Evacuation and egress provisions**

### ***D.2.1 Emergency exit marking***

Every emergency exit and the means of access to the exit must be clearly and conspicuously marked—

- (1) such that the identity and location of the exit is recognisable from a distance equal to the width of the cabin; and
- (2) with the means of opening the exit.

## **Appendix E — Agricultural Aircraft**

In addition to complying with the requirements of Appendix A, certification of a aircraft intended to be used on agricultural operations requires compliance with the following additional airworthiness requirements:

### **E.1 Crew protection requirements**

An aircraft that is to be certificated in the restricted category for the purpose of conducting agricultural aircraft operations must comply with the crew protection requirements specified in Section 35 of Appendix B of the United States of America Civil Aeronautics Manual 8 that was in effect on 1 February 1965.