I, PHILIPPA JILLIAN SPENCE, Director of Aviation Safety, on behalf of CASA, make this instrument under regulation 135.025 of the *Civil Aviation Safety Regulations 1998*.

**[Signed P. Spence]**

Pip Spence  
Director of Aviation Safety

29 November 2023

Part 135 Manual of Standards Amendment Instrument 2023 (No. 1)

1 Name of instrument

This instrument is the *Part 135 Manual of Standards Amendment Instrument 2023 (No. 1)*.

2 Commencement

This instrument commences on 2 December 2023.

3 Amendment of the Part 135 Manual of Standards

Schedule 1 amends the *Part 135 (Australian Air Transport Operations—Smaller Aeroplanes) Manual of Standards 2020*.

Schedule 1 Amendments

[1] Paragraph 3.02(a)

repeal and substitute

(a) the aeroplane’s certificate of registration;

(aa) for a registered aeroplane—the aeroplane’s certificate of airworthiness;

(ab) for a foreign registered aeroplane—the aeroplane’s authorisation (however described) that is equivalent to a certificate of airworthiness;

[2] Section 10.02, Definitions

insert

***runway strip****:*

(a) for an aerodrome in Australian territory—has the meaning given in the *Part 139 (Aerodromes) Manual of Standards 2019*; and

(b) for an aerodrome in a foreign country—means the runway strip for a runway at the aerodrome, as declared in accordance with the relevant requirements of the NAA of the country.

[3] Section 10.02, definition of *take-off distance available*

repeal and substitute

***take-off distance available***, for a take-off of an aeroplane at an aerodrome, means the total of:

(a) the length of the take-off run available for a runway at the aerodrome; and

(b) if:

(i) a clearway is provided at the aerodrome—the length of the clearway; or

(ii) a clearway is not provided at the aerodrome—the length of the part of the runway strip between the end of the runway and the runway strip end.

[4] Paragraphs 11.01(5)(b) and (c)

repeal and substitute

(b) any mention of feet (or ft) in the context of an altitude is taken to mean feet above mean sea level (AMSL), unless otherwise stated.

[5] Subparagraph 11.08(3)(b)(i)

omit

rotorcraft’s

insert

aeroplane’s

[6] Subparagraph 11.08(3)(b)(ii)

omit

rotorcraft

insert

aeroplane

[7] Subparagraph 11.08(3)(b)(ii)

omit

rotorcraft’s

insert

aeroplane’s

[8] Sub-subparagraph 11.08(3)(b)(ii)(B)

omit

rotorcraft’s

insert

aeroplane’s

[9] Subsection 11.08(4)

omit

rotorcraft

insert

aeroplane

[10] Subsection 11.08(4)

omit

rotorcraft’s

insert

aeroplane’s

[11] Section 11.19, definition of *GPWS*

omit

[12] Section 11.19, Definitions

insert

***TAWS-Class B+*** means a TAWS that:

(a) is a TAWS-Class B; and

(b) includes a colour terrain display that meets the following requirements:

(i) the displayed terrain information must be depicted relative to the aeroplane’s position such that the pilot can estimate the relative bearing to the terrain of interest;

(ii) the displayed terrain information must be depicted relative to the aeroplane’s position such that the pilot may estimate the distance to the terrain of interest;

(iii) the displayed terrain information depicted must be oriented to either the heading or the track of the aeroplane, and may include an additional selectable north-up orientation format;

(iv) variations in terrain elevation must be depicted relative to the aeroplane’s current or projected elevation (above and below) and be visually distinct, except that terrain that is more than 2 000 feet below the aeroplane’s elevation may be excluded;

(v) terrain that generates alerts must be displayed in a manner that distinguishes it from non-hazardous terrain, consistent with the caution and warning alert level relevant to the TAWS Class B equipment.

[13] Paragraph 11.22(2)(b)

omit

issued with a certificate of airworthiness

insert

registered, in Australia or elsewhere,

[14] Section 11.25

repeal and substitute

11.25 Terrain awareness and warning system (TAWS)

(1) This section applies to an aeroplane, for an IFR flight, or a VFR flight at night, if it is conducting a passenger transport operation or a medical transport operation.

(2) If the aeroplane is a turbine-engine aeroplane:

(a) with an MTOW of more than 5 700 kg; or

(b) that is carrying 10 or more passengers;

then it must be fitted with a TAWS-Class A.

(3) If the aeroplane is a turbine-engine aeroplane:

(a) with an MTOW of 5 700 kg or less; and

(b) that is carrying 10 or more passengers;

then, it must be fitted with a TAWS-Class A or a TAWS-Class B+.

(4) If the aeroplane is a piston-engine aeroplane:

(a) with an MTOW of more than 5 700 kg; or

(b) that is carrying 10 or more passengers;

then it must be fitted with a TAWS-Class A, a TAWS-Class B+ or TAWS-Class B.

(5) This section applies subject to sections 11.25A and 11.26.

[15] RESERVED

[16] Section 11.25A

repeal and substitute

11.25A Transitional provision—CAO 20.18

(1) In this section:

***CAO 20.18*** means *Civil Aviation Order 20.18*.

***TAWS-B+ system*** has the meaning given by paragraph 2.1 of repealed CAO 20.18, as in force immediately before the commencement of this instrument.

(2) This section applies to a turbine-engine aeroplane, for an IFR flight, which:

(a) is conducting a passenger transport operation; and

(b) has an MTOW of 5 700 kg or less; and

(c) is carrying 10 or more passengers; and

(d) is fitted with visual display of a TAWS-B+ system that is not compliant with the TAWS-Class B+ terrain display requirements before 2 December 2023.

(3) Despite section 11.25, until immediately before 3 June 2024, the aeroplane must be fitted with one of the following:

(a) a TAWS‑B+ system;

(b) a TAWS‑Class B+;

(c) a TAWS-Class A.

(4) This section applies subject to section 11.26.

[17] RESERVED

[18] Section 11.26, the chapeau

omit

GPWS, or a TAWS,

insert

TAWS

[19] Subparagraph 11.26(a)(i)

omit

GPWS, or TAWS,

insert

TAWS

[20] Subparagraph 11.26(a)(ii)

omit

GPWS, or TAWS,

insert

TAWS

[21] Subsection 11.28(1)

repeal and substitute

(1) Airborne weather radar equipment, fitted to an aeroplane under section 11.27, may be inoperative at the beginning of a flight, but only if the relevant forecasts or reports indicate there are no potentially hazardous weather conditions in any of the following flight paths:

(a) in the flight path along which the aeroplane will be flown;

(b) if the operational flight plan for the flight includes an alternate aerodrome—in the flight path to that aerodrome.

[22] Subsection 11.40(1)

omit

fitted with supplemental

insert

fitted with, or carry, supplemental

[23] Subsections 11.41(1) and (2)

repeal and substitute

(1) An unpressurised aeroplane operated at a pressure altitude above 10 000 ft (a ***relevant aeroplane***) must be fitted with, or carry, sufficient supplemental oxygen to meet the requirements set out in Table 11.41(2).

(2) A relevant aeroplane to which subsection (1) applies must be fitted with, or carry, supplemental oxygen equipment capable of storing, and dispensing, supplemental oxygen to crew members and passengers.

[24] Subsection 11.58(2), the chapeau

omit

following distances:

insert

following distances from a suitable forced landing area situated on land:

[25] Subsection 11.58(4)

omit

paragraph (3)(a),

insert

subparagraph (3)(b)(i),

[26] Paragraph 11.58(4)(b)

omit

landing area, situated on land, for the flight.

insert

landing area for the flight.

[27] Division 13 of Chapter 11, the heading

repeal and substitute

Division 13—Surveillance equipment

[28] Section 11.60, the heading

repeal and substitute

11.60 Carriage of surveillance equipment

[29] Subsection 11.60(1)

repeal

[30] Subsection 11.60(2)

omit

For subsection (1), an

insert

An

[31] Subsection 11.60(2), Table 11.60(2), Item 3, paragraph (a)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[32] Subsection 11.60(2), Table 11.60(2), Item 4, paragraph (a)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[33] Section 11.61, the heading

repeal and substitute

11.61 Operation of surveillance equipment—general requirements

[34] Subsections 11.61(1), (2), (3) and (4)

repeal and substitute

(1) The requirements of this section are subject to section 11.65.

(2) Surveillance equipment required to be fitted to, or carried on, an aircraft by section 11.60 must be continuously operated during the circumstances mentioned in section 11.60.

(3) Subsection (2) does not apply if air traffic control has issued an instruction that the surveillance equipment is not to be operated.

(4) If an aircraft is fitted with more than 1 approved transponder, only 1 transponder is to be operated at any time.

[35] Subsection 11.61(8)

repeal and substitute

(8) Pressure altitude information reported by an approved transponder or an approved ADS-B OUT equipment configuration must be determined by:

(a) a barometric encoder of a type authorised by CASA or the NAA of a recognised country in accordance with (E)TSO-C88a; or

(b) another system approved under Part 21 of CASR as having a level of performance equivalent to a system mentioned in paragraph (a).

[36] Section 11.62, the heading

repeal and substitute

11.62 Mode S transponders and ADS-B OUT—specific requirements

[37] Subsection 11.62(4)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[38] Subsection 11.62(6)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[39] Subsection 11.63(1)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[40] Subsection 11.63(2)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[41] Subsection 11.64(3)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[42] Subsection 11.64(4)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[43] Section 11.65, the heading

repeal and substitute

11.65 Aeroplane flown with inoperative surveillance equipment

[44] Section 11.65, the chapeau

omit

An approved transponder

insert

Surveillance equipment

[45] Paragraph 11.65(a)

omit

approved transponder

insert

surveillance equipment

[46] Paragraph 11.65(b)

omit

approved transponder

insert

surveillance equipment

[47] Section 11.65, the Note

repeal and substitute

Note See also section 11.04 for additional requirements related to a flight with inoperative equipment. For a flight with inoperative surveillance equipment, within controlled airspace or at a controlled aerodrome, Division 11.2 of the Part 91 Manual of Standards has requirements related to air traffic control clearances. Whether a clearance is issued, or when a clearance may be issued, could be affected by the flight not being conducted with operative surveillance equipment.

[48] Paragraph 13.05(2)(d)

omit

experienced, for example, low visibility operations.

insert

experienced.

[49] Paragraph 14.05(2)(d)

omit

experienced, for example, low level operations.

insert

experienced.