I, PHILIPPA JILLIAN SPENCE, Director of Aviation Safety, on behalf of CASA, make this instrument under regulation 121.015 of the *Civil Aviation Safety Regulations 1998*.

**[Signed P. Spence]**

Pip Spence
Director of Aviation Safety

29 November 2023

Part 121 Manual of Standards Amendment Instrument 2023 (No. 1)

1 Name of instrument

 This instrument is the *Part 121 Manual of Standards Amendment Instrument 2023 (No. 1)*.

2 Commencement

 This instrument commences on 2 December 2023.

3 Amendment of the Part 121 Manual of Standards

 Schedule 1 amends the *Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Manual of Standards 2020*.

Schedule 1 Amendments

[1] Subsection 1.04(1), definition of *actual landing distance* and *TAWS*

repeal and substitute

***actual landing distance***: see subsection 9.13(1).

***TAWS*** means terrain awareness and warning system.

[2] Subsection 1.04(1), Definitions

insert

***estimated time of use***: see section 4.05.

***relevant weather conditions***: see section 4.04.

[3] Paragraph 2.18(1)(c)

repeal and substitute

 (c) if the flight is one mentioned in subsection 11.08(2)—the communications facilities required under subsection 11.08(3) are available; and

[4] Paragraph 2.20(4)(a)

repeal and substitute

 (a) the aerodrome forecast, or ICAO landing forecast, for each aerodrome selected as an EDTO en-route aerodrome, indicates that the forecast cloud ceiling and visibility, at the estimated time of use mentioned in section 4.05 for the aerodrome, are above the landing minima for the approach expected to be used; and

[5] Paragraph 2.20(6)(a)

omit

approach during the expected time of use of

insert

approach, during the estimated time of use mentioned in section 4.05 of

[6] 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;

[7] Section 3.03

omit

passenger transport operation,

insert

passenger transport operation or a medical transport operation,

[8] Paragraph 4.06(7)(b)

repeal and substitute

 (b) the time period associated with the probability indicator is within the first 3 hours of the period of validity of the forecast, provided that none of the estimated time of use of the aerodrome by the aeroplane is outside the end time (if any) specified for the TAF3 service.

[9] Subsection 4.09(2)

repeal and substitute

 (2) For subparagraph (1)(a)(i), the TAF3 may be used for the purposes of subsection (1) only if the first 3 hours of the period of validity of the forecast are:

 (a) within the period of the TAF3 service; and

 (b) wholly encompass the time periods mentioned in paragraphs (1)(b) and (c).

[10] Paragraph 4.19(2)(d)

omit

2023

insert

2024

[11] Subsection 9.04(2)

repeal and substitute

 (2) For the purposes of subsection (1), an obstacle is deemed to be within the net take‑off flight path if the lateral distance from the obstacle to the aeroplane’s intended flight pathis within a distance calculated in accordance with subsection (2A) or (5).

 (2A) For the purposes of subsection (2), the distance is that which does not exceed the following, subject to the limitations mentioned in subsection (3) or (4) (whichever is applicable):

 (a) 90 m plus (0.125 x D);

 (b) if the aeroplane has a wingspan less than 60 m—the distance worked out using the formula:

 half the wingspan of the aeroplane) + 60 m + (0.125 x D).

 (2B) In subsection (2A):

***D*** means the horizontal distance the aeroplane will travel from:

 (a) the end of the take-off distance available at the aerodrome; or

 (b) if a turn is scheduled before the end of the take-off distance available—the end of the take-off distance required for the take-off.

[12] Subsection 9.04(5)

repeal and substitute

 (5) Until the end of 1 December 2024, for the purposes of subsection (2), the distance is that which does not exceed a distance calculated in accordance with subsection 12A of Civil Aviation Order 20.7.1B, as in force immediately before 2 December 2021.

[13] Subsection 9.04(5A)

repeal

[14] Paragraph 9.04(7)(e)

omit

sections 9.05 and 9.07

insert

subsection 9.05(3) and section 9.07

[15] Subsection 9.04(7), Note 2

omit

subsection 9.05(1).

insert

subsection 9.05(2).

[16] Subsections 9.04(8) and (9)

repeal and substitute

 (8) In this section:

***Civil Aviation Order 20.7.1B*** means *Civil Aviation Order 20.7.1B – Aeroplane weight and performance limitations – specified aeroplanes above 5 700 kg, or 2 722 kg if driven by 2 or more jet engines – all operations*.

[17] Subsection 9.13(1)

add at the end

Note:The ICAO *Aeroplane Performance Manual* (Doc 10064), Chapter 5 – Landing Performance, explains the requirements for aeroplane manufacturer provision of actual landing distance data.

[17A] Subsection 9.13(6)

omit

aeroplane of intended landing

insert

aerodrome of intended landing

[18] Paragraphs 11.01(2)(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.

[19] Paragraph 11.19(2)(c)

omit

aural

insert

aural or visual

[20] Section 11.24

repeal and substitute

11.24 Terrain awareness and warning system (TAWS)

 (1) In this section:

***TAWS-Class A*** means a terrain awareness and warning system that:

 (a) meets the performance requirements for Class A equipment in (E)TSO‑C151b; and

 (b) is authorised in writing by CASA or the national aviation authority of a recognised country.

***TAWS-Class B*** means a terrain awareness and warning system that:

 (a) meets the performance requirements for Class B equipment in (E)TSO‑C151b; and

 (b) is authorised in writing by CASA or the national aviation authority of a recognised country.

 (2) A turbine-engine aeroplane must be fitted with a TAWS-Class A.

 (3) A piston-engine aeroplane must be fitted with a TAWS-Class A or a TAWS‑Class B.

[21] Section 11.24A

repeal

[22] Section 11.25

repeal and substitute

11.25 Flight with inoperative TAWS equipment

A TAWS fitted in accordance with section 11.24 may be inoperative at the beginning of a flight but only if the flight begins:

 (a) from an aerodrome at which there is no facility for the TAWS to be repaired or replaced; and

 (b) within 24 hours of the time the TAWS was found to be inoperative.

[23] Subparagraph 11.35(1)(a)(i)

omit

certificate of airworthiness

insert

certificate of airworthiness, or an authorisation (however described) equivalent to a certificate of airworthiness issued by the NAA of a Contracting State,

[24] Subsection 11.40(1)

omit

fitted with

insert

fitted with, or carry,

[25] 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 carry sufficient supplemental oxygen to meet the requirements set out in table 11.41.

 (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.

[26] Subparagraph 11.43(1)(a)(i)

omit

airworthiness

insert

airworthiness; or

[27] Subparagraph 11.43(1)(a)(ii)

omit

State;

insert

State; and

[28] Paragraph 11.43(2)(a)

repeal and substitute

 (a) the oxygen dispensing units must be automatically deployable; and

 (aa) the units must be immediately available to each passenger on the flight, wherever seated; and

[29] Section 11.48, Table 11.48, item heading, column 2

repeal and substitute

**Date certificate of airworthiness was first issued, or date an authorisation (however described) equivalent to a certificate of airworthiness issued by the NAA of a Contracting State, was first issued**

[30] Paragraph 11.52(2)(e)

omit

despite paragraph (d),

insert

despite paragraphs (a) and (d),

[31] Paragraph 11.52(2)(f)

omit

despite paragraph (d)—

insert

despite paragraphs (a) and (d)—

[32] Subsection 11.62(2), the chapeau

omit

following distances:

insert

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

[33] Paragraph 11.64(1)(a)

omit

TSO-C121b

insert

TSO-C200

[34] Paragraph 11.64(1)(b)

omit

ETSO-C121b

insert

ETSO-C200

[35] Division 13 of Chapter 11, the heading

repeal and substitute

Division 13—Surveillance equipment

[36] Section 11.66, the heading

repeal and substitute

11.66 Carriage of surveillance equipment

[37] Section 11.66, Table 11.66, item 1, column 2

omit

ADS-OUT

insert

ADS-B OUT

[38] Section 11.67, the heading

repeal and substitute

11.67 Operation of surveillance equipment—general requirements

[39] Subsections 11.67(1), (2), (3) and (4)

repeal and substitute

 (1) The requirements of this section are subject to section 11.71.

 (2) Surveillance equipment required to be fitted to, or carried on, an aircraft by section 11.66 must be continuously operated during the circumstances mentioned in section 11.66.

Note:Continuous operation for a transponder means that the equipment must be operated in a mode that enables an SSR response to be transmitted.

 (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.

[40] Subsection 11.67(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).

[41] Section 11.68, the heading

repeal and substitute

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

[42] Subsection 11.68(3)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[43] Subsection 11.68(5)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[44] Subsection 11.69(1)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[45] Subsection 11.69(2)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[46] Subsection 11.70(3)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[47] Subsection 11.70(4)

omit

issued with a certificate of airworthiness

insert

certificated in its country of manufacture

[48] Section 11.71, the heading

repeal and substitute

11.71 Aeroplane flown with no operative surveillance equipment

[49] Section 11.71, the chapeau

omit

an approved transponder

insert

surveillance equipment

[50] Section 11.71, the chapeau

omit

the transponder

insert

the equipment

[51] Paragraph 11.71(a)

omit

approved transponder

insert

surveillance equipment

[52] Paragraph 11.71(b)

omit

approved transponder

insert

surveillance equipment

[53] Section 11.71, the Note

repeal and substitute

Note:See also section 11.06 for additional requirements related to a flight with inoperative equipment. For a flight with no operative 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.

[54] After subsection 12.10(1)

insert

 (1A) Despite subsection (1), this section does not apply to a flight of an aeroplane that is:

 (a) a medical transport operation transporting medical patients—provided that:

 (i) a person, other than a flight crew member, is on board the aeroplane for the flight; and

 (ii) the person could reasonably provide medical aid to the patients at least equivalent to the medical aid that a first-aid trained flight crew member could provide; or

 (b) a cargo transport operation—provided that the only persons on board the aeroplane for the flight are crew members.

[55] Subsection 12.23(2)

omit

Appendix L.18

insert

Appendix L.10