

Explanatory Statement

Civil Aviation Safety Regulations 1998

Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Amendment Manual of Standards 2021

Purpose

The *Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Amendment Manual of Standards 2021* (the **MOS amendment**) amends the *Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Manual of Standards 2020* (the **MOS**).

The MOS, which commences on 2 December 2021, sets out standards for the operational, procedural and safety risk management matters for the conduct of Australian Air Transport operations in larger aeroplanes. The MOS was made under Part 121 of the *Civil Aviation Safety Regulations 1998* (**CASR**). It consolidates the existing rules and contains some new rules to enhance operational flexibility and improve aviation safety and bring Australian requirements more in line with the Standards and Recommended Practices (**SARPs**) of the International Civil Aviation Organization (**ICAO**).

The MOS amendment, which commences on registration, is necessary to make a number of miscellaneous minor or machinery amendments to the MOS. The MOS amendments do not substantially alter the existing arrangements, as provided for by the MOS with effect on and from 2 December 2021.

Legislation

The *Civil Aviation Act 1988* (the **Act**) establishes the regulatory framework for maintaining, enhancing and promoting the safety of civil aviation, with particular emphasis on preventing aviation accidents and incidents.

Subsection 98 (1) of the Act provides, in part, that the Governor-General may make regulations, not inconsistent with the Act, prescribing matters required or permitted by the Act to be prescribed, or necessary or convenient to be prescribed, for carrying out or giving effect to the Act. The *Civil Aviation Regulations 1988* and CASR are made under the Act.

The *Civil Aviation Safety Amendment (Part 121) Regulations 2018* (**Part 121 of CASR**) was registered on 18 December 2018 and amended by the *Civil Aviation Legislation Amendment (Flight Operations—Miscellaneous Amendments) Regulations 2020* registered on 21 October 2020. Part 121 of CASR commences on 2 December 2021. Under regulation 121.015 of CASR, the Civil Aviation Safety Authority (**CASA**) may issue a Manual of Standards for Part 121 of CASR that prescribes matters required or permitted by that Part to be prescribed, or necessary or convenient for carrying out or giving effect to Part 121. This power is complemented by other provisions, throughout Part 121 which empower CASA to prescribe specific matters in the MOS, and in CASR.

Section 4 of the *Acts Interpretation Act 1901* (the **AIA**) as applied by section 13 of the *Legislation Act 2003* (the **LA**) provides, among other things, that if an Act (including a regulation) is enacted and at a time after its enactment (the **start time**) the Act will confer power to make an instrument, that power may be exercised before the start time as if the relevant commencement had occurred. However, in general terms, the exercise of this power does not confer a power or right to impose an obligation on a person before the relevant commencement. Using section 4 of the AIA, the MOS is made under regulation 121.015 of CASR, a regulation that will not commence until 2 December 2021.

Under subsection 33 (3) of the *Acts Interpretation Act 1901*, where an Act confers a power to make, grant or issue any instrument of a legislative or administrative character (including rules, regulations or by-laws), the power shall be construed as including a power exercisable in the like

manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend, or vary any such instrument.

For convenience in this Explanatory Statement, unless a contrary intention appears, mention of a provision with the prefix “121.” is a reference to that provision in Part 121 of CASR.

More details about the minor or machinery MOS amendments are set out in Appendix 2 of this Explanatory Statement.

Legislation Act 2003 (the LA)

Paragraph 10 (1) (d) of the LA provides that an instrument will be a legislative instrument if it includes a provision that amends or repeals another legislative instrument. This instrument amends the *Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Manual of Standards 2020*, that was registered as a legislative instrument. The MOS amendment is, therefore, also a legislative instrument, subject to tabling and disallowance in the Parliament under sections 38 and 42 of the LA.

As the instrument relates to aviation safety and is made under CASR, Part 4 of Chapter 3 of the LA (the ***sunsetting provisions***) does not apply to the instrument (item 15 of the table in section 12 of the *Legislation (Exemptions and Other Matters) Regulation 2015*). The instrument deals with aviation safety matters that, once identified, require a risk response or treatment plan. As such, the instrument is intended to have enduring operation and it would not be appropriate for it to be subject to sunsetting.

The exemption from the sunsetting provisions affects parliamentary oversight by not requiring the instrument to be remade at the end of the sunsetting period (remaking would have the effect that the instrument must be re-tabled and would become subject to disallowance in the Parliament under sections 38 and 42 of the LA). However, it is likely that, over time, further MOS amendments will be made and these will be subject to tabling and disallowance in the Parliament in the normal way.

Incorporations by reference

Under subsection 98 (5D) of the Act, the MOS may apply, adopt or incorporate any matter contained in any instrument or other writing. A non-legislative instrument may be incorporated into a legislative instrument made under the Act, as that non-legislative instrument exists or is in force at a particular time or from time to time (including a non-legislative instrument that does not exist when the legislative instrument is made).

Under paragraph 15J (2) (c) of the LA, the Explanatory Statement must contain a description of the incorporated documents and indicate how they may be obtained. A table was included in the Explanatory Statement for the MOS listing and explaining the various incorporated documents.

The MOS amendment incorporates the matters set out in the following table.

Name of instrument or document	Description	Manner of incorporation	Source
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Name of instrument or document	Description	Manner of incorporation	Source
The <i>Civil Aviation Regulations 1988</i> : Paragraphs 262AD(1)(a) and 262AE(1)(a); certain definitions occurring in regulation 262AA.	These provisions of CAR contain operating limitations for aircraft certified in certain categories and experimental aircraft. The provisions are incorporated by section 11.21A, inserted by item [96]. The incorporations are transitional in nature and self-repeal at the end of 1 December 2023.	As in force immediately before the commencement of the MOS (being 2 December 2021).	The instrument is freely available on the Federal Register of Legislation.
<i>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</i>	This Civil Aviation Order provides the manner of determining a maximum weight for an aeroplane that its gross weight must not exceed at take-off or landing. The instrument is incorporated by section 9.04, inserted by item [78] of the MOS amendment, and is transitional in nature. The incorporation will self-repeal at the end of 1 December 2022.	As in force immediately before the commencement of the MOS.	The instrument is freely available on the Federal Register of Legislation.
<i>Civil Aviation Order 20.18 (Aircraft equipment – basic operational requirements) Instrument 2014</i>	This instrument provides operational requirements relating to equipment for Australian registered aircraft. The instrument is incorporated by section 11.24A, inserted by item [100] of the MOS amendment, and is transitional in nature. The incorporation will self-repeal at the end of 1 December 2023. (Existing section 11.24 of the MOS had incorporated this instrument, as in force immediately before the commencement of the MOS.)	As in force immediately before the commencement of the MOS, being 2 December 2021.	The instrument is freely available on the Federal Register of Legislation.

Name of instrument or document	Description	Manner of incorporation	Source
EASA AMS 20-24 <i>Certification Considerations for the Enhanced ATS in Non-Radar Areas using ADS-B Surveillance (ADS-B-NRA) Application via 1090 MHz Extended Squitter</i>	This document sets out the EASA acceptable means of compliance for the certification considerations for the enhanced ATS in non-radar areas using ADS-B Surveillance (ADS-B-NRA) application via 1090 MHz extended squitter. The document was initially incorporated by section 11.70 of the MOS as in force or existing from time to time. Item [137] amends the method of incorporation as fixed at 2 May 2008.	As existing on 2 May 2008.	This document is available for free at https://www.easa.europa.eu/sites/default/files/dfu/Annex%20II%20-%20AMC%2020-24.pdf
EASA CS ACNS <i>Certification Specifications and Acceptable Means of Compliance for Airborne Communications, Navigation and Surveillance CS-ACNS</i>	This document provides the Certification Specifications and acceptable means of compliance for Airborne Communications, Navigation and Surveillance. The document was initially incorporated by section 11.70 of the MOS as in force or existing from time to time. Item [138] amends the incorporation such that the version dated 17 December 2013, and any later version, is incorporated.	The version dated 17 December 2013, and any later version is incorporated.	This document is available for free at https://www.easa.europa.eu/sites/default/files/dfu/Annex%20I%20to%20ED%20Decision%202019-011-R%20-%20CS%20ACNS%20Issue%202.pdf

Consultation

Under regulation 11.280 in Subpart 11.J of CASR, if CASA intends to issue a MOS, CASA must, in effect, engage in public consultation on the draft MOS. This requirement also applies to a MOS amendment.

However, under paragraph 11.275 (1) (d), CASA is not obliged to consult if the Director of Aviation Safety (the **Director**) determines that the MOS is of a minor or machinery nature that does not substantially alter existing arrangements. In such circumstances, under subregulation 11.275 (2), CASA must publish the determination, and a statement of reasons for it, on the internet within 28 days after making the determination.

The MOS amendment does not substantially alter the existing arrangements, whether as provided for by the MOS with effect on and from 2 December 2021, or as would be provided for on that date by the relevant provisions of those other instruments if they continued to exist transitionally and independently of the MOS. The Director has made such a determination because the purpose of the MOS amendment is to make a range of corrections and updates to the MOS.

The MOS amendments do not substantially alter the existing arrangements as provided for by the MOS with effect on and from 2 December 2021. The amendments include some alleviations by deferring the application of new requirements for a limited period of time, and for this purpose extending the operation of existing, in force, rules. Any such existing rules have at least equivalent safety outcomes. This is consistent with CASA's transitional policy for the flight operations regulations (including new Parts 91, 119, 121, 133, 135 and 138 of CASR), allowing more time for industry to comply with new requirements.

There has, nevertheless, been considerable informal consultation with the aviation industry in the course of preparation of the amendments. Many of the amendments have arisen due to extensive feedback from the aviation industry to CASA via multiple communication channels, both individual direct feedback, and collective feedback from various working groups.

Regulation Impact Statement

A Regulation Impact Statement (**RIS**) was prepared by CASA for the new Part 121 and this RIS also covered the MOS and the MOS amendment which the regulations empowered. The RIS was assessed by the Office of Best Practice Regulation (**OBPR**) as compliant with the Best Practice Regulation requirements and contained a level of analysis commensurate with the likely impacts (OBPR id: 24505). A copy of the RIS was included in the Explanatory Statement for the *Civil Aviation Safety Amendment (Part 121) Regulations 2018* ([Civil Aviation Safety Amendment \(Part 121\) Regulations 2018 \(legislation.gov.au\)](#)).

Sector risk, economic and cost impact

Subsection 9A(1) of the Act states that, in exercising its powers and performing its functions, CASA must regard the safety of air navigation as the most important consideration. Subsection 9A(3) of the Act states that, subject to subsection (1), in developing and promulgating aviation safety standards under paragraph 9(1)(c), CASA must:

- (a) consider the economic and cost impact on individuals, businesses and the community of the standards; and
- (b) take into account the differing risks associated with different industry sectors.

The cost impact of a standard refers to the direct cost (in the sense of price or expense) which a standard would cause individuals, businesses and the community to incur. The economic impact of a standard refers to the impact a standard would have on the production, distribution and use of wealth across the economy, at the level of the individual, relevant businesses in the aviation sector, and the community more broadly. The economic impact of a standard could also include the general financial impact of that standard on different industry sectors.

The requirements in this instrument are minor or machinery in nature and are designed to avoid imposing additional costs on operators. It is considered by CASA that these matters are adequately encompassed by the RIS prepared by CASA for the new Part 121 and Part 121 MOS previously mentioned and that was assessed by the Office of Best Practice Regulation (OBPR) as compliant with the Best Practice Regulation requirements and contained a level of analysis commensurate with the likely impacts (OBPR id: 24505).

Statement of Compatibility with Human Rights

A Statement of Compatibility with Human Rights is at Appendix 1. This concludes that the MOS amendment, as a set of minor or machinery amendments, is compatible with human rights.

Commencement and making

The MOS amendment commences at the time that it is registered on the Federal Register of Legislation. The empowerment for the MOS amendment, contained in Part 121, in particular in

regulation 121.015, had not commenced when the MOS amendment was made. However, this is permitted under section 4 of the AIA which authorises the anticipatory making of a subordinate instrument in these circumstances, provided the instrument does not commence until (or after) the delayed empowering instrument has itself commenced.

The MOS amendment has been made by the Director of Aviation Safety, on behalf of CASA, in accordance with subsection 73 (2) of the Act.

Statement of Compatibility with Human Rights

Prepared in accordance with Part 3 of the Human Rights (Parliamentary Scrutiny) Act 2011

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This legislative instrument is compatible with the human rights and freedoms recognised or declared in the international instruments listed in section 3 of the *Human Rights (Parliamentary Scrutiny) Act 2011*.

Overview of the Legislative Instrument

The *Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Amendment Manual of Standards 2021* (the **MOS amendment**) amends the *Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Manual of Standards 2020* (the **MOS**).

The MOS, which commences on 2 December 2021, sets out standards for the operational, procedural and safety risk management matters for the conduct of Australian Air Transport operations in larger aeroplanes. The MOS was made under regulation 121.015 of Part 121 of the *Civil Aviation Safety Regulations 1998 (CASR)*. It consolidates the existing rules and contains some new rules to enhance operational flexibility and improve aviation safety and bring Australian requirements more in line with the Standards and Recommended Practices (**SARPs**) of the International Civil Aviation Organization (**ICAO**).

The MOS amendment, which commences at the time it is registered, is necessary to make a number of miscellaneous minor or machinery amendments to the MOS. The MOS amendments do not substantially alter the existing arrangements as provided for by the MOS with effect on and from 2 December 2021.

Human rights implications

When it was made, the Explanatory Statement for the MOS explained that, of their very nature in addressing aviation safety issues, its provisions may engage the following human rights:

- the right to life under Article 6 and the right to privacy and reputation under Article 17 of the International Covenant on Civil and Political Rights (the **ICCPR**)
- the right to work under Article 6 (1) and the right to safe and healthy working conditions under Article 7 of the International Covenant on Economic, Social and Cultural Rights (the **ICESCR**).

That earlier Explanatory Statement concluded that the MOS was a legislative instrument that was compatible with human rights and, to the extent that it may also limit human rights, the limitations were reasonable, necessary and proportionate to ensure the safety and the integrity of the aviation safety system upon which all aviation operations rely.

The MOS amendment is also a legislative instrument but it contains only minor or machinery amendments as explained above, and these do not, of themselves, directly engage human rights, nor do they increase any engagement with human rights already recorded in the earlier Explanatory Statement. The instrument is, in itself, therefore, compatible with human rights.

Conclusion

The MOS is a legislative instrument that is compatible with human rights.

Details of the Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Amendment Manual of Standards 2021

Section 1 provides for the naming of the *Part 121 (Australian Air Transport—Larger Aeroplanes) Amendment Manual of Standards 2021* (the **MOS amendment**).

Section 2 provides for the commencement of the MOS amendment at the time it is registered.

Section 3 provides that the MOS amendment is made under the *Civil Aviation Safety Regulations 1998*.

Section 4 provides that Schedule 1 amends the *Part 121 (Australian Air Transport Operations—Larger Aeroplanes) Manual of Standards 2020* (the **MOS**).

Schedule 1

[1] Subsection 1.04(1)

Item [1] 1 adds a definition for **CAR**, to mean the *Civil Aviation Regulations 1988*.

[2] Subsection 1.04(1)

Item [2] adds a definition for **cloud ceiling**, to have the same meaning as in the CASR Dictionary.

[1] Subsection 1.04(1), definition of *landing distance available*, paragraph (a)

Item [3] corrects an editorial error.

[2] Subsection 1.04(1), definition of *net flight path*

Item [4] corrects an incorrect reference.

[3] Subsection 1.04(1)

Item [5] adds a definition for **operative**, to mean, for anything, that the thing is not inoperative.

[4] Subsection 1.04(1), definition of *precision approach procedure*

Item [6] corrects reference in the definition of **precision approach procedure** to ‘SBAS’ to ‘SBAS CAT 1’.

[5] Subsection 1.04(1)

Item [7] adds a definition for **SBAS CAT 1**, to mean, in relation to an instrument approach procedure, SBAS Category 1.

[6] Subsection 1.04(1)

Item [8] adds a definition for **take-off run required**, to mean, for an aeroplane, the take-off run for the aeroplane calculated in accordance with the relevant requirements stated in the aeroplane’s flight manual.

[7] Subsection 1.04(1), definition of *trip fuel*

Item [9] clarifies in the definition that trip fuel means the amount of fuel required to enable an aeroplane to fly from any point along the route until landing at an aerodrome, rather than a destination aerodrome.

[8] Section 2.16, heading

Item [10] provides for a more accurate section heading.

[9] Section 2.16, note

item [11] corrects an incorrect reference in the Note.

[10] Section 2.17, heading

Item [12] provides for a more accurate section heading.

Items [11] to [18] of subsection 2.18(5)

These items make minor corrections to section 2.18 to facilitate the intended operation and comprehension of the section.

[12] Subsection 2.20(3)

Item [19] restructures subsection 2.20 (3) to clarify the circumstances in which assistance from the flight dispatcher is needed if an EDTO significant event occurs during flight.

[13] Paragraph 2.24(4)(c)

Item [20] clarifies the intent of the provision.

[14] Table 3.04, item 2, columns 1 and 2

Item [21] removes the requirement for signalling devices to be only pyrotechnic in nature. There are now non-pyrotechnic devices available on the market that an operator could use. If this term is retained in item 2 of Table 3.04, the operator would not be required to have the information for these devices available for a rescue centre. Non-pyrotechnic signalling devices are not yet in widespread use, but a better future safety outcome would be achieved if operators must have the information on these devices available.

[15] Section 4.02

Item [22] removes unnecessary definitions for Chapter 4 of the MOS, including the previous definition of ‘relevant minima’.

[16] Section 4.04

Item [23] inserts a new subregulation 4.04(1) to facilitate the amendment made by item [26]. Item [23] is related to the amendments in items [24] to [26].

[17] Paragraph 4.04(a)

Item [24] removes reference to ‘relevant minima’ to allow section 4.04 to apply to a broader range of cloud height circumstances.

[18] Paragraph 4.04(b)

Item [25] recasts paragraph 4.04(b) for clarity and to remove reference to ‘relevant minima’.

[19] At the end of section 4.04

Item [26] provides the circumstances in which relevant weather conditions, which would otherwise represent an operationally limiting condition, are taken not to be present if the aeroplane is carrying a prescribed amount of fuel.

[20] Subsection 4.06(2)

Item [27] removes reference to ‘relevant minima’ to allow section 4.06 to apply to a broader range of cloud height circumstances.

[21] Paragraph 4.06(2)(a)

Item [28] removes reference to ‘relevant minima’ to allow section 4.06 to apply to a broader range of cloud height circumstances.

[22] Subsection 4.06(4)

Item [29] recasts subsection 4.06(4) to clarify the circumstances in which weather conditions forecast to occur on an intermittent basis (“INTER”) or temporary basis (“TEMPO”) can be disregarded when determining whether or not ‘relevant weather conditions’ are present during the estimated time of use of an aerodrome. Subsections 4.06(4) and (4A) set out the amount of holding fuel and the estimated time of use relevant to determine whether INTER or TEMPO weather conditions can be disregarded. Subsection 4.06(4B) provides that when an authorised weather forecast contains multiple change indicators of INTER or TEMPO, those weather conditions are taken to be present for a time period mentioned in subsection (4) or (4A) that is relevant to the most operationally limiting change indicator, other than in the case that holding fuel for the most operationally limiting change indicator is carried by the aeroplane for the flight.

Item [29] also inserts new subsection 4.06(4C) which provides that for a flight to an isolated destination aerodrome, if an amount of holding fuel is being carried under the provisions of subsection (4), (4A) or (4B) and that amount of fuel is less than the difference between isolated destination fuel and final reserve fuel for the aeroplane for the flight, then the holding fuel can be taken to be carried as part of the isolated destination fuel.

[23] Subsection 4.06(5)

Item [30] removes reference to ‘relevant minima’ to allow section 4.06 to apply to a broader range of cloud height circumstances.

[24] Subsection 4.06(5), notes 1 and 2

Item [31] removes a superfluous explanatory Note.

[25] Subsection 4.06(7)

Item [32] removes an unnecessary reference to weather conditions being below relevant minima.

[26] Paragraph 4.06(7)(b)

Item [33] provides that subsection 4.06(5) does not apply if the authorised weather forecast being used is a TAF 3 and the time period associated with the probability indicator is within the first 3 hours of the period of validity of the forecast.

[27] At the end of subsection 4.06(6)

Item [34] adds an explanatory note to guide the reader’s understanding of the phrase ‘cloud ceiling’ used in subsection 4.06(6).

[28] Paragraph 4.07(1)(a)

Item [35] corrects an editorial error.

[29] Subsection 4.07(3), note 2

Item [36] corrects a cross-referencing error.

[30] Subsection 4.07(3), note 3

Item [37] corrects a cross-referencing error.

[31] Paragraph 4.09(1)(b)

Item [38] clarifies that the paragraph is intended to refer to ‘cloud ceiling’.

[32] Paragraph 4.09(1)(c)

Item [39] clarifies the requirements that must be met in order for an aeroplane to be exempt under subsection 4.08 (4) of the MOS from the requirement in subsection 4.08(1) to plan at least one destination alternate aerodrome for the flight. Item [39] provides the requirement that there are no known Air Traffic Services delays at the aerodrome that would require carriage of holding fuel in addition to that which is already on-board, for the period beginning from the estimated time of arrival and ending 60 minutes after the estimated time of arrival.

[33] Section 4.11, heading to table 4.11

Item [40] provides for a more accurate table heading.

Items [34] and [42], table items 2 and 3 of column 2

Items [41] and [42] align with the drafting style of table 4.11 and clarify the appropriate cloud ceiling minima.

[35] Section 4.11, after table 4.11

Item [43] adds an explanatory note to assist in the interpretation of table 4.11.

[36] Paragraph 4.13(1)(b)

Item [44] provides that the requirement to plan a destination alternate aerodrome where portable runway lighting is only available in section 4.13 does not apply to an isolated aerodrome, take-off alternate aerodrome or en-route alternate aerodrome.

Items [37] and [46], notes at subsections 4.13(1) and 4.14(1)

These items remove superfluous explanatory notes.

[38] Paragraph 4.15(1)(b)

Item [47] provides that the requirement to plan a destination alternate aerodrome where the destination aerodrome does not have standby power for the runway lights in section 4.15 does not apply to an isolated aerodrome, take-off alternate aerodrome or en-route alternate aerodrome.

Items [39] and [49], notes at subsections 4.15(1) and 4.16(1)

These items remove superfluous explanatory notes.

[40] Paragraph 4.17(1)(b)

Item [50] provides that the requirement to plan a destination alternate aerodrome where the destination aerodrome is equipped with pilot-activated lighting and standby power for the runway lights in section 4.17 does not apply to an isolated aerodrome, take-off alternate aerodrome or en-route alternate aerodrome.

Items [41] and [52], notes at subsections 4.17(1) and 4.18(1)

These items remove superfluous explanatory notes.

[42] Subsection 4.19(1), subsection heading

Item [53] provides for a more accurate subsection heading.

[43] Paragraph 4.19(2)(c)

Item [54] removes an unnecessary paragraph. The content of paragraph 4.19(2)(c) is moved to paragraph 4.19(2)(e) for clarity.

[44] Paragraph 4.19(2)(d)

Item [55] delays commencement of the requirement for, in the case of an EDTO flight with a maximum diversion time of 180 minutes or less, to select an EDTO en-route alternate aerodrome

that has rescue and firefighting services to at least Manual of Standards 139H category 4, or equivalent facilities within 30 minutes' notice. The requirement will commence from the beginning of 2 December 2023.

[45] Subparagraph 4.19(2)(d)(i)

Item [56] corrects a cross-referencing error.

[46] Paragraph 4.19(2)(e)

Item [57] provides that if the aerodrome is in Australian territory, the aerodrome must have air traffic control or air traffic services available within 30 minutes' notice and be a controlled aerodrome, or an uncontrolled aerodrome for which radio carriage is required under regulation 91.400 of CASR. This amendment incorporates the content of paragraph 4.19(2)(c) to paragraph 4.19(2)(e) for clarity.

[47] Paragraph 4.19(2)(f)

Item [58] corrects a typographical error.

[48] Subparagraph 4.19(2)(f)

Item [59] corrects a cross-referencing error.

[49] Subparagraphs 7.03(3)(a)(i) and (ii)

Item [60] clarifies that the relevant aerodrome for these subparagraphs is the planned destination aerodrome.

[50] Paragraph 7.05(1)(b)

Item [61] clarifies that the relevant aerodrome for this paragraph is the planned destination aerodrome.

[51] Paragraph 7.05(2)(a)

Item [62] clarifies that the relevant aerodrome for this paragraph is the planned destination aerodrome for the flight.

[52] Paragraph 7.05(3)(a)

Item [63] clarifies that the relevant aerodrome for this paragraph is the planned destination aerodrome for the flight.

[53] At the end of subsection 7.05(3)

Item [64] adds an explanatory note to assist in the interpretation of subsection 7.05(3).

[54] Paragraph 7.05(6)(a)

Item [65] requires the operator and pilot in command of a flight to ensure, if the flight has been unable to land at the planned destination aerodrome and is diverting to the planned destination alternate aerodrome, that the aeroplane is carrying trip fuel to the planned destination alternate aerodrome.

Items [55] to [68], section 7.06

These items insert new subheadings to subsections 7.06(1), (3) and (6), to delineate section 7.06 and facilitate easier comprehension of the section.

[56] Section 8.01, before subsection (1)

Item [69] moves the reference to the enabling provision (paragraph 121.280(3)(a) of CASR) for section 8.01 to its own subsection, to facilitate the amendments made in item [71]. The enabling

provision is about prescribing information that must be included in the safety briefing for an aeroplane and a flight.

[57] Subsection 8.01(1)

Item [70] removes reference to paragraph 121.280(3)(a) of CASR in subsection 8.01(1) and is consequential on the inclusion of new subsection 8.01(3) inserted by item [71].

[58] After subsection 8.01(2)

Item [71] provides that an operator who held an AOC authorising charter operations or regular public transport operations prior to 2 December 2021 can continue to use their safety briefing card until 2 December 2022.

[59] Division 1 of Chapter 9, heading

Item [72] provides for a more accurate Division heading.

[60] Paragraph 9.01(b)

Item [73] provides that Division 1 of Chapter 9 prescribes requirements relating to take-off performance for a flight of an aeroplane mentioned in section 9.01A of the MOS.

[61] After section 9.01

Item [74] inserts an application provision for Division 1 of Chapter 9 to provide that it applies to an aeroplane that is a jet-driven aeroplane or is a propeller-driven aeroplane with a maximum take-off weight of more than 5 700 kg.

[62] Paragraph 9.02(c)

Item [75] corrects a cross-referencing error.

[63] Section 9.02, note

Item [76] corrects a cross-referencing error.

[64] After paragraph 9.04(5)

Item [77] provides that an obstacle is deemed to be within the net take-off flight path for the purposes of subsection 9.05(1), if the lateral distance from the obstacle to the aeroplane's intended flight path does not exceed a distance calculated in accordance with subsection 12A of Civil Aviation Order 20.7.1B, as in force immediately before the commencement of the MOS amendment. This item inserts a new subsection that is included as a transitional measure in accordance with CASA's transitional policy for the flight operations regulations, of which Part 121 is a part. This item is associated with item [78].

Civil Aviation Order 20.7.1B is incorporated as existing immediately before the repeal of its empowering provision by item 42 of Schedule 1 to the *Civil Aviation Legislation Amendment (Flight Operations—Consequential Amendments and Transitional Provisions) Regulations 2021*.

[65] At the end of section 9.04

Item [78] defines *Civil Aviation Order 20.7.1B* and provides that subsections 9.04(5A), (8) and (9) will be repealed at the end of 1 December 2022.

[66] Paragraph 9.08(2)(a)

Item [79] corrects a cross-referencing error.

[67] Subparagraph 9.08(2)(a)(i)

Item [80] corrects an error.

[68] Subsection 9.08(5)

Item [81] corrects a cross-referencing error.

[69] Paragraph 9.08(6)(a)

Item [82] corrects a cross-referencing error.

[70] After Division 1 of Chapter 9

Item [83] inserts a new Division 1A—Take-off performance requirements: propeller-driven aeroplanes with maximum take-off weight not more than 5 700 kg. The amendment includes new sections 9.08A to 9.08K. Aeroplanes with a maximum take-off weight (MTOW) of 5 700 kg or less are not consistently provided with the performance data to enable compliance with Division 1 of Chapter 9 of the MOS because the certification requirements for these aeroplanes do not require this performance data.

This amendment inserts take-off performance requirements for such aeroplanes, and specifies:

- the scope of Division 1A of Chapter 9 as made for subregulation 121.395(1) of CASR, and prescribing requirements relating to take-off performance for a flight of an aeroplane mentioned in section 9.08B: section 9.08A.
- that the Division applies to a propeller-driven aeroplane that has a MTOW of not more than 5 700 kg: section 9.08B.
- definitions for the Division: section 9.08C.
- the meaning of factored take-off run: section 9.08D.
- when CASA may approve a take-off factor for an aeroplane: section 9.08E.
- the maximum permitted take-off weight for an aeroplane: section 9.08F.
- the take-off requirements for an aeroplane: section 9.08G.
- the initial climb performance and obstacle clearance requirements for an aeroplane: section 9.08H.
- additional take-off requirements for aeroplanes with MTOW of more than 3 500 kg: section 9.08J.
- the en route obstacle clearance requirements for multi-engine aeroplanes: section 9.08K.

[84] Paragraph 9.12(2)(b)

Item [84] corrects a cross-referencing error, consequential to item [83].

[85] Subsection 9.13(10)

Item [85] corrects a cross-referencing error.

[86] Paragraph 11.03(2)(d)

Item [86] corrects a cross-referencing error.

[87] Paragraph 11.03(2)(e)

Item [87] removes a superfluous paragraph.

[88] Paragraph 11.04(4)(d)

Item [88] facilitates the addition of new paragraph 11.04(4)(e), associated with item [89].

[89] After paragraph 11.04(4)(d)

Item [89] provides that if surveillance equipment is carried on an aeroplane although not required by Chapter 11 of the MOS to be fitted or carried, the equipment must not affect the safety of other aircraft or interfere with the proper functioning of an air traffic service.

[90] At the end of section 11.04

Item [90] adds an explanatory note to assist in the interpretation of paragraph 11.04(4)(e).

[91] Section 11.06

Item [91] provides that any equipment required by this Chapter to be fitted to, or carried on, an aeroplane for a flight must be operative unless another section of this Chapter provides otherwise, or the equipment is inoperative because of a defect that has been approved as a permissible unserviceability for the aeroplane for the flight and is fitted or carried in accordance with the permissible unserviceability.

This amendment inserts new requirements for the serviceability of equipment. The previous section 11.06 did not properly integrate with how minimum equipment lists work or the existing defined term in the CAR Dictionary of *permissible unserviceability*.

[92] At the end of section 11.09

Item [92] adds an explanatory note to inform the reader of a navigation equipment related requirement in the Part 91 Manual of Standards that is applicable generally.

[93] At the end of section 11.10

Item [93] adds an explanatory note to inform the reader of a requirement in the Part 91 Manual of Standards, and applicable generally, relating to operations in RVSM airspace.

[94] Subsection 11.18(1)

Item [94] removes the requirement for navigation lights to be fitted to an aircraft operating in poor visibility. The phrase ‘poor visibility’ was a carryover from regulation 195 of CAR. If an aircraft is not intended to fly at night, then the only practical way this requirement could be met is if the navigation lights are permanently fitted. This amendment ensures the rule can be reasonably complied with.

[95] At the end of section 11.20

Item [95] adds an explanatory note to inform the reader of requirements relating to air traffic control clearances in the Part 91 Manual of Standards, as relevant for a flight of an aeroplane fitted with inoperative altitude alerting equipment.

[96] After section 11.21

Item [96] adds a transitional provision to allow an operator to choose to comply with the provisions of CAR for TCAS in effect immediately before the commencement of the MOS until the end of 1 December 2023. This is an alternate option to the new ACAS requirements in the MOS, and is to facilitate the transition of operators to the new requirements.

[97] Subsection 11.22(1)

Item [97] is consequential to item [96].

[98] Section 11.23

Item [98] substitutes a new section 11.23 to permit an aeroplane with an inoperative ACAS to conduct a flight or series of flights from locations where approved ACAS cannot be repaired or replaced, for a period of not more than 72 hours from when the ACAS was found to be

inoperative. It also properly encompasses the transitional ACAS provisions allowed for under section 11.21A.

[99] Subsections 11.24(2), (3) and (4)

Item [99] substitutes new subsections 11.24(2) and (3), and removes the existing subsection 11.24(4), to provide clarity for the circumstances in which an aeroplane must be fitted with a terrain awareness and warning system (**TAWS**). Previously, section 11.24 contained the TAWS requirements in effect for the transition period to 2 December 2023, and the permanent requirements following that date. The amendment recasts section 11.24 to clarify that on and from 2 December 2023, a turbine-engine aeroplane must be fitted with a TAWS-Class A. On and from 2 December 2023, a piston-engine aeroplane must be fitted with a TAWS-Class A or a TAWS-Class B.

[100] After section 11.24

Item [100] adds a new transitional provision for TAWS based on Civil Aviation Order 20.18. New section 11.24A contains the transitional alleviations, and requires an aeroplane to which the old Civil Aviation Order 20.18 GPWS requirements applied to either comply with those old requirements or the new requirements in section 11.24. New section 11.24A will be repealed at the end of 1 December 2023.

Civil Aviation Order 20.18 is incorporated as existing immediately before the repeal of its empowering provisions by items 36 and 40 of Schedule 1 to the *Civil Aviation Legislation Amendment (Flight Operations—Consequential Amendments and Transitional Provisions) Regulations 2021*.

[101] Section 11.25

Item [101] is consequential to items [99] and [100].

[102] Section 11.26

Item [102] facilitates the introduction of new subsections 11.26(2) and (3) in item [103].

[103] After subsection 11.26(1)

Item [103] adds a new transitional provision to provide that an aeroplane does not need to be fitted with airborne weather radar equipment if the aeroplane is either not used to conduct scheduled air transport operations and is originally type certificated to be operated by a single pilot, or is an unpressurised turbine-engine aeroplane that has maximum take-off weight of not more than 5 700 kg, or is an unpressurised piston-engine aeroplane. This transitional provision will be repealed at the end of 1 December 2023.

[104] Section 11.29

Item [104] corrects a drafting error to clarify that one flight data recorder (**FDR**) must be fitted to an aeroplane with MTOW of more than 5 700 kg and is either turbine powered, or is of a type first certificated in its country of manufacture on, or after, 1 July 1965. The previous content incorrectly applied a cumulative requirement that the aeroplane be both turbine powered and first issued with a certificate of airworthiness on or after 1 July 1965 for an FDR to be required.

Items [105] and [106], subparagraphs 11.30(a)(i) and (ii)

Items [105] and [106] correct a drafting error to clarify that one cockpit voice recorder (**CVR**) must be fitted to an aeroplane with MTOW of more than 5 700 kg and is either turbine powered, or is of a type first certificated in its country of manufacture on, or after, 1 July 1965. The previous content incorrectly applied a cumulative requirement that the aeroplane be both turbine powered and first issued with a certificate of airworthiness on or after 1 July 1965 for a CVR to be required.

[107] Section 11.39

Item [107] adds a definition for *required cabin crew member* to mean a cabin crew member required for the flight of an aeroplane under regulation 121.635 of CASR. This definition is required to facilitate amendments made to tables 11.40 and 11.41 by items [110] to [124].

[108] Subsection 11.40(2)

Item [108] facilitates the introduction of new subsection 11.40(2A).

[109] After subsection 11.40(2)

Item [109] adds an alleviation to the requirement for pressurised aeroplanes operated at altitude above 10 000 ft to carry sufficient supplemental oxygen to meet the requirements set out in table 11.40. The amendment provides that if the relevant aeroplane is certified to fly with a pressure altitude of only 25 000 ft or below and is able to safely descend within 4 minutes to a cabin pressure altitude of 13 000 ft, then the supplemental oxygen supply requirements in table 11.40 may be reduced as mentioned in subsection (2B).

[110] Table 11.40, item 1, paragraph 2.(b) of column 2

Item [110] adds additional requirements for the supplemental oxygen required for flight crew members or assisting crew members relating to the descent rate of the aeroplane. This applies EASA.CAT.IDE.A.235 paragraph (f), which was erroneously overlooked when making the Part 121 MOS.

[111] Table 11.40, item 1, paragraph 3.(b) of column 2

Item [111] adds additional requirements for the supplemental oxygen required for flight crew members or assisting crew members relating to the descent rate of the aeroplane. This applies EASA.CAT.IDE.A.235 paragraph (g), which was erroneously overlooked when making the Part 121 MOS.

[112] Table 11.40, item 2, column 1

Item [112] recasts the application of item 2 of table 11.40 to apply to ‘required cabin crew members’.

[113] Table 11.40, item 2, paragraph 1.(b) of column 2

Item [113] adds additional requirements for the supplemental oxygen required for required cabin crew members relating to the descent rate of the aeroplane. This applies EASA.CAT.IDE.A.235 paragraph (f), which was erroneously overlooked when making the Part 121 MOS.

[114] Table 11.40, item 2, paragraph 2 of column 2

Item [114] is consequential to item [112].

[115] Table 11.40, item 3, column 1

Item [115] recasts the application of item 3 of table 11.40 to apply to passengers, and crew members who are not flight crew members or assisting crew members, or required crew members.

[116] Table 11.40, item 3, paragraph 1.(a) of column 2

Item [116] is consequential to item [115].

[117] Table 11.40, item 3, paragraph 1.(b) of column 2

Item [117] adds additional requirements for the supplemental oxygen required for passengers, and crew members who are not flight crew members or assisting crew members, or required crew

members, relating to the descent rate of the aeroplane. This applies EASA.CAT.IDE.A.235 paragraph (h), which was erroneously overlooked when making the Part 121 MOS.

[118] Table 11.40, item 3, paragraphs 2 and 3 of column 2

Item [118] is consequential to item [115].

Items [119] to [124], table 11.41

Items [119] to [124] recast table 11.41 to reflect the changes to table 11.40 and incorporate the new term ‘required cabin crew members’. The effect of the amendments is to omit table item 1 (item [119]), and consolidate the content of that table item into table item 2, now expressed to apply to ‘flight crew members, assisting crew members and required cabin crew members’ (item [120]). Table item 3 is expressed to apply to ‘passengers and crew members not covered by item 2 of this table’ (item [122]). Items [121], [123] and [124] make minor editorial changes based on changed terminology.

[125] Paragraph 11.43(1)(a)

Item [125] corrects the unintended exclusion of foreign registered aircraft that do not hold an Australian certificate of airworthiness from being required to comply with this provision. The paragraph is revised to include pressurised aeroplanes that, instead of holding an Australian certificate of airworthiness, instead hold an authorisation equivalent to a certificate of airworthiness issued by the national aviation authority of a Contracting State of ICAO.

[126] Subsections 11.44(4) and 11.45(4)

Item [126] removes an incorrect requirement for protective breathing equipment to be compatible with the use of a megaphone. This is an incorrect requirement not in accordance with the current policy evidenced by Civil Aviation Order 20.4 or equivalent international regulatory positions.

[127] Paragraph 11.52(2)(b)

Item [127] corrects an editorial error.

Items [128] to [130], paragraphs 11.52(2)(d), (e) and (f), and table 11.52

Items [128] to [130] replace the usage of ‘passenger seating capacity’ with ‘maximum operational passenger seat configuration’ to align with the preferred defined term.

[131] Subsection 11.53(1)

Item [131] provides that section 11.53 applies on and after 2 December 2023.

[132] Subsection 11.53(2)

Item [132] inserts the preferred phrase ‘an aeroplane for a flight’ to provide clarity and specificity.

[133] After subsection 11.53(3)

Item [133] inserts a new subsection 11.53(4) that sets at overall outcome-based requirements which set a baseline for aviation safety. Subsections (2) and (3) contain specific requirements regarding first aid equipment.

[134] After subsection 11.55(2)

Item [134] provides that an aeroplane engaged in a passenger transport operation or medical transport operation is not required to carry the prescribed number of universal precaution kits if the aeroplane takes off from an aerodrome at which no facility exists for universal precaution kits to be replenished or replaced, provided that the aeroplane carries a sufficient number of universal precaution kits, taking into consideration the number of passengers on board for, and the duration of, the flight.

[135] Paragraphs 11.59(1)(b) and (c)

Item [135] removes reference to single-engine aeroplanes that are not seaplanes or amphibian. The empowering Part 121 regulation for Chapter 11 of the 121 MOS does not apply to single-engine aeroplanes.

[136] Section 11.61

Item [136] removes section 11.61 as the empowering Part 121 regulation for Chapter 11 of the Part 121 MOS does not apply to single-engine aeroplanes and this section only applies to single-engine aeroplanes.

[137] Section 11.65, definition of *EASA AMC 20-24*

Item [137] amends the incorporation of the document EASA AMC 20-24 so that it is incorporated as it exists on 2 May 2008. Previously it was incorporated as existing from time to time, which is not the policy intention.

[138] Section 11.65, definition of *EASA CS-ACNS*

Item [138] amends the incorporation of the document EASA CS-ACNS so that the version dated 17 December 2013, plus any later versions of the document, are incorporated. Previously the document was incorporated as in force or existing from time to time, which would have the result that a later version would supersede an earlier one which is not the policy intention.

[139] Section 11.65, definition of *NIC*

Item [139] corrects a referencing error.

[140] Section 11.66

Item [140] adds a new section 11.66 and table 11.66, and sets out the circumstances in which an aeroplane must be fitted with at least 1 transponder.

[141] Paragraph 11.67(5)(b)

Item [141] is consequential to item [142].

[142] Subsection 11.67(5), heading in table 11.67

Item [142] adds an identifying table number to make the table similar in structure and referencing to other tables in the MOS.

[143] Table 11.67, items 7, 8, and 9

Item [143] removes items 7, 8 and 9 of table 11.67. This amendment is related to item [144].

[144] After subsection (6)

Item [144] inserts new table 11.67(6A) to more clearly identify the Mode A emergency codes for emergency situations. This differentiates emergency codes from the standard codes in table 11.67(5). Despite the requirement in new subsection (6A) for a pilot of an aircraft to set the nominated Mode A code in the event of an emergency situation, the pilot does not have to set the Mode A code if the pilot reasonably believes that maintaining an existing Mode A code would result in a safer outcome.

[145] Subsection 11.68(7), note

Item [145] corrects a referencing error.

[146] After subsection 11.69(2)

Item [146] adds an explanatory note to provide further clarity of which GNSS receivers meet the requirements of this section.

[147] Section 11.71, heading

Item [147] provides for a more accurate section heading.

[148] Section 11.71

Item [148] provides further clarity in relation to the potential situation of an aeroplane having more than 1 transponder, and 1 (or more) of the “surplus” transponders being inoperative.

[149] At the end of section 11.71

Item [149] adds an explanatory note to draw the reader’s attention to additional, disparate, requirements.

[150] Paragraph 12.06(1)(f)

Item [150] corrects the requirement for practical training in firefighting when this requirement is delayed until 2 December 2023. The changed wording puts in place the correct theory-based requirement.

[151] At the end of subsection 12.06(2)

Item [151] adds three explanatory notes to clarify common questions regarding the operation of section 12.06.

[152] Paragraph 12.10(1)(b)

Item [152] facilitates the inclusion of new paragraph 12.10(1)(c), included in item [153].

[153] After paragraph 12.10(1)(b)

Item [153] inserts a new paragraph that provides that if a cabin crew member is assigned to duty for a flight, despite not being required under regulation 121.630 of CASR to be carried for the flight, then the flight crew would not be required to have undertaken first-aid training.

[154] After paragraph 12.11(1)(b)

Item [154] facilitates the inclusion of new paragraph 12.11(1)(c), included in item [153].

[155] Paragraph 12.11(1)(b)

Item [155] provides that if a cabin crew member is assigned to duty, despite not being required under regulation 121.630 of CASR to be carried for the flight, then the flight crew would not be required to have undertaken passenger handling training.

[156] Subsection 12.23(1)

Item [156] provides clarity to the proficiency check requirements for cruise-relief co-pilots who are assigned by the operator to carry out duties only within the scope of the privileges of the pilot’s cruise-relief co-pilot rating.

[157] Paragraph 12.28(5)(a)

Item [157] broadens the equipment that do not require a practical component in the annual emergency and safety equipment training for flight crew to also include first-aid kits, emergency medical kits, universal precaution kits, crash axes and crowbars.

[158] Paragraph 12.32(1)(e)

Item [158] corrects a cross-referencing error.

[159] Paragraphs 12.32(2) and (3)

Item [159] makes a minor amendment by adding the word “solely”. This amendment ensures that the operator is not committing an offence by issuing theoretical training in support of the practical training requirement.

[160] Section 12.32, note 2

Item [160] corrects a cross-referencing error.

[161] Section 13.06, note 2

Item [161] corrects a cross-referencing error.

[162] Subsection 13.09(3)

Item [162] provides that if a training facility or device is used to simulate a fire for live firefighting exercises, it must adequately simulate the characteristics of a fire relevant to the training (for example, flame, heat, smoke or a fire’s reaction to the application of an extinguishing agent). This amendment is to limit the application of this requirement to live firefighting exercises only.

[163] Paragraph 13.17(1)(f)

Item [163] corrects the requirement for practical training in firefighting when this requirement is delayed until 2 December 2023. The changed wording puts in place the correct theory-based requirement.

[164] At the end of section 13.17

Item [164] adds three explanatory notes to clarify common questions regarding the operation of section 13.17.

[165] Section 13.24, note 2

Item [165] corrects a cross-referencing error.

[166] Section 13.29, heading

Item [166] provides for a more accurate section heading.

[167] Subsection 13.29(1)

Item [167] corrects an error of not mentioning abnormal situations and procedures in this subsection when these kinds of matters are included in the conversion training requirements for cabin crew members in later subsections within section 13.29.

[168] Section 13.34, heading

Item [168] provides for a more accurate section heading.

[169] Subsection 13.34(1)

Item [169] corrects an error of not mentioning abnormal situations and procedures in this subsection when these kinds of matters are included in the annual training requirements for cabin crew members in later subsections within section 13.34.

[170] Paragraph 13.35(2)(g)

Item [170] clarifies that three-yearly training for cabin crew must include training on firefighting that requires the cabin crew member to complete a simulated firefighting exercise.

[171] Subsection 13.35, note

Item [171] corrects a cross-referencing error.