

## CASR Part 91 Manual of Standards – Amendments in Plain English

## Background

The Part 91, 121, 133, 135 and 138 Manuals of Standards were made into law in October, November and December 2020.

Since this time, matters of the following kinds have been raised, necessitating the amendment of each Manual of Standards (MOS):

- errors in grammar (for example 'and' instead of 'or')
- errors in fact. Some examples are:
  - o an altitude consulted as 12 500 feet but mistakenly included as 10 000 feet
  - o a requirement for certain equipment not aligned with the old rule in the CAR that should have been carried across
- the existence of legislative instruments not yet included in the Part 91 MOS, that should be included to meet CASA's commitment to industry to have a single permanent non-regulation container (i.e. the MOS) for rules associated with the regulations for a specific CASR part. Some examples are:
  - the instrument on performance-based communications and surveillance
  - the instruments on broadcast areas where radio carriage and certain radio calls are mandatory (called mandatory broadcast areas (MBA) in the amendment)
  - $\circ$  the 2020 amendments to CAO 20.18 related to the VFR ADS-B project
  - o some common industry exemptions mistakenly overlooked for inclusion for inclusion in the Part 91 MOS
- changes to a number of provisions to clarify that the pilot in command does not have to personally do a thing, but rather ensure the thing has been done
- insertion of a change to Chapter 7 to better mesh the Chapter with the Part 121 alternate aerodrome requirements
- the need for additional deferral provisions to meet the intent of the flight operations regulations transition policy.

Each of these amendments are of a minor or machinery nature and do not impose an additional burden on the aviation industry. This document describes the changes in plain English for industry information ahead of the formal legal amendment of the MOS prior to 2 December 2021.

## Part 91 MOS Amendments

Part 91 MOS provision	Description of amendment	Explanation of amendment
Subsection 1.05 (1)	Added clarifying information.	<i>Minor change</i> New text added to provide clarifying comments regarding how AS/NZS dates work
References to AS/NZS standards, TSOs, ETSOs, (E)TSOs		when used in conjunction with an AS/NZS standard in the Part 91 MOS.
Subsection 1.07 (6)	Added a cross-reference to the definition	Minor change
Definitions	for approved GNSS position source.	The term <i>approved GNSS position source</i> is currently only used in the surveillance equipment division of Chapter 26 of the Part 91 MOS (Equipment) and therefore the term did not need to be defined as having MOS-wide application.
		However, this term is now also being used in the new words added to section 11.03, and therefore this 'pointer definition' has been added to the main MOS dictionary to ensure MOS-wide application.
Subsection 1.07 (6)	Modified the definition for <i>approved</i> provider.	Minor change
Definitions		The definition of this term in the Part 91 MOS is currently incorrect, in that it states that an <i>approved provider</i> of a navigation database is a Part 175 data service provider. In practice, Part 175 data service providers send data to persons holding certain approvals from the FAA or EASA (called a Type 2 LOA or a Type 2 DAT approval).
		The definition has been modified to match existing practice and ensure there are no impacts on industry.
Subsection 1.07 (6)	Deleted the definition for ASAO.	Minor change
Definitions		The definition is not needed as it is now not used in the Part 91 MOS.
Subsection 1.07 (6)	Added the definition for <i>ATS</i> surveillance service.	Minor change
Definitions		Definition added to support the changes in item 2 of Table 21.05.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Subsection 1.07 (6)	Added the definition for ATS surveillance	Minor change
Definitions	system.	Definition added to support the changes in item 2 of Table 21.05.
Subsection 1.07 (6)	Amended the definition for <i>FATO</i> to align	Minor change
Definitions	with the Part 138 MOS definition.	The current definition in the Part 138 MOS is – <i>FATO</i> means final approach and take- off area, as that expression is defined in the CASR Dictionary.
		The current definition in the CASR Dictionary is - <i>FATO</i> means see final approach and take-off area. Final approach and take-off area is defined in CASR dictionary.
		The current definition in the Part 91 MOS is - <i>FATO</i> , or <i>final approach and take-off area</i> , has the meaning given by Part 1 of the CASR Dictionary.
		These two definitions should be aligned and the proposed amendment will achieve that by adopting the Part 138 definition into the Part 91 MOS.
Subsection 1.07 (6)	Added the definition for flying in formation.	Minor change
Definitions		Definition added for use in section 26.69 of the Part 91 MOS.
Subsection 1.07 (6)	Added the definition for <i>in-company</i> .	Minor change
Definitions		Definition added for use in section 26.69 of the Part 91 MOS.
Subsection 1.07 (6)	Added the definition for <i>jump aircraft</i> to	Minor change
	align with the Part 105 MOS definition.	The definition of <i>jump aircraft</i> has been added to align with the Part 105 MOS. for use in section 20.06 of the Part 91 MOS.
Subsection 1.07 (6)	Deleted the definition for <i>large aeroplane.</i>	Minor change
Definitions		The term <i>larger aeroplane</i> is currently used in the naming of Part 121.
		Use of the term <i>large aeroplane</i> to describe an aeroplane with a MTOW greater than 5700 kg is prone to confusion, as the terms are often interchanged for either use.
		The use of the term <i>large aeroplane</i> has been replaced with the phrase <i>aeroplane with MTOW</i> > <i>5700kg</i> , and in this MOS is only used in Table 19.02 (2).

Part 91 MOS provision	Description of amendment	Explanation of amendment
		Same reasoning applies to <i>small aeroplane</i> (and <i>smaller aeroplane</i> in the naming of Part 135).
		This change will be replicated in Part 135 MOS where the term <i>large aeroplane</i> (used twice) and <i>small aeroplane</i> (used twice) will be replaced likewise.
Subsection 1.07 (6)	Added the definition for LOA.	Minor change
Definitions		The definition for <i>approved provider</i> in the Part 91 MOS is currently incorrect and has been corrected by these amendments. The modification of that definition uses the new term <i>Type 2 LOA</i> . This definition of <i>LOA</i> is needed to support the definition of <i>Type 2 LOA</i> .
Subsection 1.07 (6)	Added definition for <i>manufacturer's data</i>	Minor change
Definitions	manual	The phrase <i>manufacturer's data manual</i> is used in the performance chapters of the Part 91 MOS (Chapters 24 and 25), but is not defined. This new definition is the same as the existing definition in CAO 20.7.1B with the exception that it has been expanded to include aircraft instead of just aeroplanes as per the CAO.
Subsection 1.07 (6)	Added the definition for <i>MBA</i> .	Machinery change
Definitions		The definition for <i>MBA</i> has been added to support the addition of mandatory broadcast areas being added to the Part 91 MOS.
		CASA has determined that the existing broadcast areas specified in Instruments 240/05 and 97/13 should be termed <i>mandatory broadcast areas</i> in the Part 91 MOS, in order to differentiate these areas from the numerous other 'broadcast areas' currently mentioned in the AIP that do not have mandatory broadcast requirements.
Subsection 1.07 (6)	Amended the definition for <i>MSA</i> .	Minor change
Definitions		The definition has been amended to apply to non-sectorised circles and 10 NM MSAs.
Subsection 1.07 (6)	Amended the definition for navigational tolerance	Minor change
Definitions		Paragraphs (a) and (b) of the definition for <i>navigational tolerance</i> are currently incorrect. The definition is only used in paragraph 15.11 (1) (a) of the Part 91 MOS in

Part 91 MOS provision	Description of amendment	Explanation of amendment
		relation to when a missed approach must be conducted during an approach procedure.
		The tolerance for a PBN operation should be the RNP value, not $\frac{1}{2}$ x the RNP value. The new wording in paragraph (a) corrects this.
		The tolerance for a VOR or LOC-based operation should be full-scale deflection, not half-scale deflection. The new wording in paragraph (b) corrects this.
Subsection 1.07 (6)	Amended the definition for <i>precision</i>	Minor change
Definitions	approach procedure.	Definition corrected to include only SBAS CAT I approaches, in line with ICAO definition.
		All SBAS approaches are not precision approaches, only SBAS CAT I are precision approaches.
		From ICAO: Precision approach (PA) procedure. An instrument approach procedure based on navigation systems (ILS, MLS, GLS and SBAS Cat I) designed for 3D instrument approach operations Type A or B.
Subsection 1.07 (6)	Amended the definition for QNH.	Minor change
Definitions		Definition corrected to include the already defined term altitude. Editorial change only, does not change the meaning of <i>QNH</i> .
Subsection 1.07 (6)	Amended the definition for <i>RVSM</i> .	Minor change
Definitions		Definition corrected to include the already defined term <i>RVSM altitude</i> . Editorial change only.
Subsection 1.07 (6)	Added the definition for SBAS CAT I.	Minor change
Definitions		Definition added to support the use of SBAS CAT I in the definition for precision approach procedure.
Subsection 1.07 (6)	Deleted the definition for <i>small aeroplane</i> .	Minor change
Definitions		The term <i>smaller aeroplane</i> is currently used in the naming of Part 135.
2		Use of the term <i>small aeroplane</i> , to describe an aeroplane with a MTOW less than 5700 kg, is prone to confusion as the terms are often interchanged for either use.

Part 91 MOS provision	Description of amendment	Explanation of amendment
		The use of the term <i>small aeroplane</i> has been replaced with the phrase <i>aeroplane with MTOW</i> < <i>5700kg</i> , and in the Part 91 MOS is only used in Table 19.02 (2).
		The same reasoning applies to <i>large aeroplane</i> (and <i>larger aeroplane</i> in the naming of Part 121).
		This change will be replicated in Part 135 MOS where the term <i>large aeroplane</i> (used twice) and <i>small aeroplane</i> (used twice) will be replaced likewise.
Subsection 1.07 (6)	Added the definition for <i>Type 2 DAT</i>	Minor change
Definitions	approval.	The definition of <i>approved provider</i> in the Part 91 MOS is currently incorrect and is being corrected by the Part 91 MOS amendments. The modification of that definition uses the new term <i>Type 2 DAT approval</i> . This definition is needed to support the inclusion of that new term in the <i>approved provider</i> definition.
Subsection 1.07 (6) Definitions	Added the definition for <i>Type 2 LOA</i> .	<i>Minor change</i> The definition of <i>approved provider</i> in the Part 91 MOS is currently incorrect and is being corrected by the MOS amendments. The modification of that definition uses the new term <i>Type 2 LOA</i> . This definition is needed to support the inclusion of that new term in the <i>approved provider</i> definition.
Subsection 1.07 (6) Definitions	Amended the definition for <i>VFR</i> <i>climb/descend.</i> Added the definition for <i>VFR descent.</i>	<ul> <li><i>Minor change</i></li> <li>The definition has been separated out to include separate definitions for <i>VFR climb</i> and <i>VFR descent</i>.</li> <li>The operational limitations of the definition have been removed and placed in section 11.17 as MOS requirements.</li> <li>The term <i>descend</i> (used in error) has been corrected to <i>descent</i>, as per the existing terminology.</li> </ul>
Subsection 1.07 (6) Definitions	Amended the definition for VFR-on-top.	<i>Minor change</i> The operational limitations have been removed from the definition and placed in section 11.17 as MOS requirements.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 2.02	Multiple editorial changes to clarify what	Machinery change
Specified aircraft	the specified aircraft performance category	The existing construct of this section improperly merges two concepts:
performance category	is, and separating out the limitations of the performance categories (see section 14.09 for limitations).	<ul> <li>stating what determines when an aircraft is in an aircraft performance category and thereby what the specified aircraft performance category is for an aircraft; and</li> </ul>
		<ul> <li>the operating rules for a particular aircraft performance category.</li> </ul>
		An editorial change has been made to ensure that what determines an aircraft's specified aircraft performance category is separated from what constitutes the limitations for operating within a specified aircraft performance category.
		Reference to regulation 91.320 is added as the head of power for performance categories, to allow clarification of higher and lower categories which are alphabetic, not numeric.
		The limitations of performance categories are removed from Table 2.02, which are added to section 14.09 as below.
Table 2.09 Specified	Editorial note added to reference application.	Minor change
cruising levels for operations at or north of 80° south		Note added to point to existing application of the cruising levels with respect to varying QNH settings.
Table 2.10 Specified	Editorial changes added to reference	Minor change
cruising levels for	application of cruising levels.	Superscripts added to reference the existing notes, which were missed in error.
operations south of 80° south		Note added to point to existing application of the cruising levels with respect to varying QNH settings.
Section 4.01	Editorial change to existing Note.	Minor change
Purpose		The existing Note has reference to section 14.09 (Instrument approach operational requirements) added.
		The new section 14.09 was added to accommodate performance category speeds that were removed from section 2.02.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Table 4.02 (1) item 2 column 3	Amend the maximum speeds for Class D airspace, to allow the maximum speed within 2500ft AGL and 4NM to be varied from 200kts to a maximum of 250kts when authorised by ATC, and allow the maximum speed of 250kts outside these vertical and lateral boundaries to be above 250kts when authorised by ATC in response to the pilot declaring it is an operational requirement.	<ul> <li>Minor change</li> <li>The current wording does not permit ATC to allow faster speeds in Class D.</li> <li>Paragraph 10.1.4 of the Part 172 MOS allows ATC to permit a speed increase up to 250 kts from 200 kts, and permit greater than 250 kts if the PIC informs that it is an operational requirement.</li> <li>Added notes to make the table compatible with paragraph 10.1.4 of the Part 172 MOS.</li> </ul>
Section 5.02 Journey log information before an international flight begins	Editorial correction of existing error.	<i>Minor change</i> The use of the word and was mistakenly used instead of or. Journey log needs to have the aircraft registration OR flight number recorded, not both.
Subsections 7.02 (1) and (1A) Forecasts for flight planning	Editorial clarification of existing requirement.	<ul> <li>Minor change</li> <li>Feedback has been received that some persons have trouble interpreting the current wording of subsection (1).</li> <li>The intent has not changed; the flight needs to be planned with weather (forecasts and reports) that is not older than 1 hour prior to commencing the flight, where available.</li> <li>A new subsection (1A) has been added to specifically allow earlier planning, but requires updated weather information to be used within 1 hour of flight.</li> </ul>
Subsection 7.02 (7) Forecasts for flight planning	Added new subsection (7) to disapply subsections (4) and (5) to Part 121 operations.	<i>Minor change</i> A new subparagraph disapplies subsections 7.02 (4) & (5) for Part 121 operations (Part 121 deals with those requirements separately). Retaining subsections 7.02 (4) and (5) for Part 121 operations would impose unnecessary constraints on those operations.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Subsections 7.03 (2) and (3) Flights unable to obtain an authorised weather forecast before departure	Added text to 7.03 (2) to disapply (2) to Part 121 operations. Added new subparagraph (3) to apply to Part 121 operations.	<i>Minor change</i> Subsection 7.03 (2) is disapplied for Part 121 operations, with the inserted subsection 7.03 (3) written to impose the correct requirements on those Part 121 operations.
Subsection 8.04 (3) Destination alternate aerodromes — weather	Amended the subsection to add reference to the destination aerodrome.	<i>Minor change</i> Amendments made for clarification, to specifically apply this subsection to the planned destination aerodrome, which was as per the intent and current practice.
Table 8.08 (1) Alternate minima at Australian aerodromes	Editorial correction of existing omission.	Minor changeItem 2 of Table 8.08 (1) details the alternate minima for day IFR aircraft when an IAPdoes not exist or cannot be flown. Item 2 (b) omitted the word Day, which has nowbeen added.Note that the table does not cover the night IFR scenario, as this is covered insubsection 8.05 (1).
Subsection 8.08 (3) Alternate minima — Australian aerodromes	Editorial correction of error in the Note at the end of the subsection.	<i>Minor change</i> Changed the word <i>approach</i> to <i>alternate</i> , to correct and earlier typographical error. There is no such minima as a 'special approach minima', the correct term is <i>special</i> <i>alternate minima</i> .
Section 9.01 Purpose (Flight notifications)	Editorial a note added for clarification.	<i>Minor change</i> Incomplete Note corrected to add clarification of intent and current practice.
Subsection 9.02 (2) Flight notification requirements	Editorial change added to clarify which over water flights require a flight notification.	<i>Minor change</i> As currently written, any flight over water would require some form of flight notification.

Part 91 MOS provision	Description of amendment	Explanation of amendment
		The intent was for flights that are conducted over water beyond glide range to require some form of flight notification (SARTIME or flight note) - see CASA Instrument 113/90.
		The addition of words to clarify overwater flights that are beyond glide range in the event of an engine failure will correctly identify which flights require flight notification.
Subsections 9.02 (2),	Editorial changes to clarify that the PIC	Minor change
9.03 (1) and (2) Changes to flight plans and SARTIME	does not need to personally complete the required tasks but must ensure they are done. Also exempting Air Transport	Currently a PIC must personally submit a flight plan (or SARTIME for arrival or flight note) and also only pilots that have submitted their own flight plan or SARTIME are required to update ATS of changes.
nominations	operations from updating POB.	The intent was to enable another person to do these tasks, provided that the PIC ensured they had been done.
		In relation to the updating of POB on flight plans, an exception for air transport operations was inadvertently left out of the initial Part 91 MOS. These operators are required to hold passenger lists for their air transport operations flights under regulations in Parts 121, 133 and 135.
Section 9.04	Editorial changes to clarify that the PIC	Minor change
Cancelling SARTIME	must ensure SARTIME is cancelled.	Currently as written only pilots that have submitted their own SARTIME are required to cancel SAR.
		The intent was to require all SARTIMEs to be cancelled, not just those personally submitted by the pilot.
		The changes put responsibility on the PIC to ensure SARTIME is cancelled, independent of who submitted notification originally.
Subsection 9.05 (2)	Clarification that any method of	Minor change
Responsible persons for the receipt of a flight note	communication with search and rescue is acceptable, not just by telephone.	Currently as written the responsible person needs access to two telephones to contact search and rescue. The intent is that two methods to contact SAR is acceptable.
		The amended wording clarifies that any two methods of contact are acceptable, not just by telephone.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 10.02 Matters to be checked before take-off	Amend the chapeau so that the PIC must ensure the tasks listed in the subsection are done, but not have to personally do the tasks.	<i>Minor change</i> Currently a PIC must personally complete the pre-flight checks listed in this subsection. The intent was to enable another person to do these tasks, provided that the PIC ensured they had been done.
Subsection 10.02 (4) Matters to be checked before take-off	Amend subparagraph (j) (iv) to match the existing requirement in CAO 20.4.	<i>Minor change</i> The drafted words of subparagraph (j) (iv) have accidentally changed the tasks required to be performed by the pilot when compared to the current requirement in CAO 20.4 paragraph 4.1 (b). The policy intent was to carry across the same outcome.
Subsection 10.03 (3) Checking systems for measuring and displaying pressure altitude — general	Delete the subsection. The content is covered in existing regulations.	<ul> <li>Minor change</li> <li>Subparagraph (3) requires the placarding and reporting of an inoperative pressure altitude system, specifically when the system is determined to be in error as per sections 10.04 and 10.05.</li> <li>Regulation 91.150 of CASR requires inoperative equipment to be placarded as inoperative prior to flight, which covers the requirement in paragraph 10.03 (3) (a).</li> <li>Regulation 50 of CAR requires that defects be reported by endorsement of the maintenance release or approved alternative document, which covers the requirement in paragraph 10.03 (3) (b).</li> <li>As such subsection 10.03 (3) can be deleted entirely.</li> </ul>
Table 11.02 (3) Transition level	Added item 5 which was missed in translating existing AIP data to the MOS.	<i>Minor change</i> Item 5 was mistakenly omitted when the existing requirements of transition levels was added from Figure 1 AIP ENR 1.7 – 4.
Section 11.03 Oceanic airspace (new title)	Amended the section title and some existing subsection numbers, due to the insertion of three new subsections that carry over a missing requirement from the to-be-repealed Subpart 91U MOS.	<b>Machinery change</b> To achieve the most efficient use of the airspace, some oceanic airspace requires aircraft to meet a navigation standard of RNP 2, RNP 4 or RNP 10. When this is required, global standards require at least 2 independent long range navigation systems to be functioning, each of them capable of the required navigation specification.

Part 91 MOS provision	Description of amendment	Explanation of amendment
		If the aircraft does not have this minimum number of functioning LRNS, the crew must advise ATC.
		This is an existing requirement for RNP 4 and RNP 10 in the Manual of Standards Subpart 91U Instrument 2005 (to be repealed), and an existing requirement for RNP 2 in CAO 20.91. This was inadvertently omitted from the Part 91 MOS that comes into effect on 2 December 2021. Adding this requirement into the Part 91 MOS now will not have any adverse effects on the industry, as this is an existing requirement harmonised with global practice.
Subsection 11.03 (2)	Amended to ensure that the requirements	Minor change
Availability of GNSS FDE in oceanic	do not apply to a GNSS used within a multi-sensor navigation system that meets paragraph (b) of the definition of approved	This subsection requires GNSS FDE predictions to be made prior to the departure of a flight that is planned to operate in oceanic airspace.
airspace		Amended to provide that a multi-sensor navigation system (as per paragraph (b) of the definition of <i>approved GNSS</i> ) is not required to meet the requirements of this subsection.
		Editorially, this subsection is being renumbered as subsection (5) by the effect of the change mentioned in the row immediately above.
Paragraph 11.06 (a)	Changed <i>aeroplane</i> to <i>aircraft</i> , due to an	Minor change
ACAS resolution advisory	earlier error.	The intent is for section 11.06 - ACAS resolution advisory to apply to rotorcraft and aeroplanes. This correction changes <i>aeroplane</i> to <i>aircraft</i> , to enable the correct application.
Section 11.08	Amended to include as legal provisions the	Minor change
CASA approval	matters CASA must consider in relation to an application for this approval.	NAT-HLA is a block of airspace in a class or classes of airspace.
required for flight in the NAT-HLA		This section of the Part 91 MOS requires a specific approval to be held to conduct a flight in the NAT-HLA.
		This amendment moves the matters CASA will consider out of the advisory Note and into a mandatory legal provision. This ensures a better linkage to the requirements of regulation 11.055 which relates to these kinds of approvals. There is no additional burden on industry as these assessment requirements reflect current practice.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 11.09	Added content to previously reserved	Machinery change
Performance-based communication and surveillance requirements	section.	Adds the performance-based communication and surveillance requirements from the existing CASA instrument 30/21, with the only changes those that were necessary to place obligations on pilots in command instead of operators due to the wording of regulation 91.255, which empowers Chapter 11 of the Part 91 MOS. The new section achieves equivalent safety outcomes with no additional practical burdens on pilots.
Subparagraph 11.10	Deleted the reference to MSA.	Minor change
(2)(b)(iv)(A)		The acronym MSA is not needed, as the definition for LSALT includes the term MSA.
Australian domestic airspace — inoperative radio requirements		
Section 11.10A	Added a new section listing mandatory broadcast areas (MBAs).	Machinery change
Mandatory broadcast area requirements		This new section adds the existing mandatory broadcast areas from CASA Instruments 490/05 and 97/13 into the Part 91 MOS.
		Other sections of the MOS specify the radio broadcast requirements of MBAs and amend the radio fitment / carriage section in the equipment chapter of the MOS, to work with the existence of mandatory broadcast areas.
		The specific dimensions of the mandatory broadcast areas will continue to be specified in the AIP.
Section 11.13	Replaced the section title text.	Minor change
Controlled aerodromes (new title)		The requirements under this section are not solely related to clearance requirements and therefore the existing title was misleading. This minor change effectively just deletes the existing words 'clearance required' that are in the section title.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 11.14 Controlled aerodromes — active participation in LAHSO Section 11.15	Added a new section reserving the location in the MOS . Section 11.14 renumbered to 11.15 due to	Minor change         This section is added to reserve the location in the MOS if, following consultation,         LAHSO requirements were to be added to this MOS. LAHSO requirements are         currently contained in section 5 of CASA Instrument 62/20.         Minor change
(was 11.14) Control zones and control areas — entry into Class A, B, C or E airspace	Added Class D airspace to the newly renumbered section 11.15.	Added Class D airspace in response to feedback from Airservices Australia.
Section 11.17 Control areas – IFR flights – VFR climb/descent and VFR-on-top	Added the operational limitations removed from the definitions of <i>VFR climb</i> , <i>VFR</i> <i>descent</i> and <i>VFR-on-top</i> . Paragraphs renumbered as needed.	<i>Minor change</i> The definitions of <i>VFR climb</i> , <i>VFR descent</i> and <i>VFR-on-top</i> have had the operational limitations removed (see subsection 1.07 (6)). These operational limitations have been moved to section 11.17. Clarification Note added.
Section 11.22 Danger areas	Corrected the reference to subregulation.	<i>Minor change</i> The correct reference for danger areas is subregulation 91.255 (2).
Section 12.03 Minimum heights — VFR flight at night	Added a clarification Note.	<i>Minor change</i> Note added to clarify there are currently no requirements in this paragraph.
Paragraph 14.02 (1) (c) IFR flight navigation requirements	Added text to fix an earlier error.	<i>Minor change</i> Reference to paragraph (a) has been included in subparagraph 14.02 (1) (c) (i). This amendment is to achieve the intent that if the PIC is unable to navigate in accordance with paragraph (a) or (b), then navigation in accordance with paragraph (c) is available.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Paragraph	Deleted paragraph (b).	Minor change
14.03 (1) (b)		Upon industry query and subsequent review it has become apparent that paragraph
Instrument approaches — QNH sources		14.03 (1) (b) was inserted in error. The paragraph has been deleted and subsequent paragraphs renumbered accordingly.
Section 14.09 and	Added a new section.	Machinery change
Table 14.09 (2)		The IAP segment speed limitations of aircraft performance categories have been
Instrument approach operational requirements		removed from Table 2.02 and placed in this new section.
Section 15.02	Corrected the definition for qualifying multi-	Minor change
Definitions for this Chapter	engine aeroplane.	The definition of <i>qualifying multi-engine aeroplane</i> has been amended to reflect current requirements.
Section 15.09	Amended to allow low visibility landings and intent not to continue if weather is below minima.	Minor change
Landing minima requirements		Currently the section does not allow for low visibility landings or contain the requirement that the approach and landing may be continued only if the weather is at or above the minima (low visibility approval or otherwise). The new wording corrects this.
Subsections	Added previously missed situation for	Minor change
15.10 (7) & (8)	aerodrome without an authorised IAP.	This addition adds the landing minima for aerodromes without an authorised IAP,
Landing minima		which was originally omitted in error, bringing rules into line with intent and current practice.
Paragraph	Added Note for guidance in unique situation.	Minor change
15.11 (2) (b)		Note added to clarify the situation where an NPA approach has a visual segment
Missed approach		after the MDA.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Paragraph 16.01 (2) (a) Purpose (Approach ban for IFR flights)	Added the word <i>control</i> to correct the applicability to air traffic control service.	<ul> <li><i>Minor change</i></li> <li>The consulted policy relating to approach bans was that the rules would only apply at aerodromes that had ATC and RVR. The current wording of the Part 91 MOS paragraph 16.01 (2) (a) would mean that the approach ban rules could apply at an aerodrome that had an air traffic service that is not an air traffic control service.</li> <li>Adding the additional word <i>control</i> to paragraph 16.01 (2) (a) will align this paragraph with later paragraphs in sections 16.02 and 16.03 that refer to ATC.</li> </ul>
Subsection 16.03 (4) Approach ban — Iow visibility operations	Replaced erroneous requirements.	<i>Minor change</i> This correction brings low visibility requirements for RVRs in line with existing policy and current industry standards.
Section 17.01 Purpose (Designated non-controlled aerodromes)	Added a clarification Note.	<i>Minor change</i> Note added to clarify that there are currently no requirements in this paragraph.
Section 18.01 Purpose (Safety when aeroplane operating on the ground)	Added maintenance or maintenance training persons.	<i>Minor change</i> The ability for maintenance or maintenance training persons to start the engine of an aeroplane was incorrectly missed in regulatory drafting of subregulation 91.425 (1). This ability is now reinstated.
Table 19.02 (2) Final reserve fuel and contingency fuel requirements	Replaced the terms <i>small aeroplane</i> and <i>large aeroplane</i> .	<i>Minor change</i> Replaced the terms <i>small aeroplane</i> and <i>large aeroplane</i> with MTOW requirements. This allows the terms to be removed from use, which reduces confusion with the terminology used by Part 135 – <i>Smaller aeroplanes</i> and Part 121 – <i>Larger</i> <i>aeroplanes</i> .

Part 91 MOS provision	Description of amendment	Explanation of amendment
Subsections 19.04 (5) and (6) Amount of fuel that must be carried for a flight	Added subparagraphs to clarify fuel requirements when diverting to a planned destination alternate.	<i>Minor change</i> Added to address the inconsistency with the Part 135 and 121 MOS where, if the PIC is unable to land at the planned destination aerodrome and diverts to the planned destination alternate aerodrome, the flight does not require (3) (a) trip fuel or (3) (e) additional fuel, from that time.
Subsection 20.01 (2) Medical transport operations — prescribed circumstances	Added prescribed circumstances for the carriage of infant or child medical patients.	Machinery changeAdded the ability for medical patients who are infants to be carried in an incubator/humidicrib etc., and children to be carried in the arms or lap of an adult, for a medical transport operation. It also adds provisions to encompass rescue scenarios conducted as part of a SAR operation.This is in line with intent, CASA EX40/2002 and current industry practice.
Section 20.02 Purpose (Restrain of infants and children)	Added a Note.	<i>Minor change</i> Note added to refer to general guidance on infant and child restraints.
Section 20.03 Infant and child seatbelts as restraints	Deleted text. Added requirements for the restraint of a child with a serious medical condition.	<ul> <li>Minor change (deletion) and machinery change (incorporation of existing exemptions)</li> <li>Deleted the incorrect reference that an infant restraint must meet the requirements of or be approved under Part 21 of CASR.</li> <li>Added the ability for a child who has a serious medical condition to be carried as per the requirements of an infant. The intent is to replicate CASA EX127/18 and similar instruments such as CASA EX123/19.</li> </ul>
Subsection 20.04 (1) Child restraint systems that are not seatbelts	Added a Note after the definition of automotive <i>child restraint system</i> .	<i>Minor change</i> Added an additional Note that links to subsection 1.05 (1), which sets out how AS/NZS standards are referenced in the Part 91 MOS.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Subsections 20.04 (2) & (3) Child restraint systems that are not seatbelts	Amended to include infants to be allowed to use child restraints.	<i>Minor change</i> Added the defined term <i>infant</i> to those persons allowed to be restrained by an approved child restraint, bringing the Part 91 MOS in line with current industry practice, CAAP 235-2 and the intent of this paragraph.
Paragraphs 20.06 (r) & (s) Passenger safety briefings and instructions	Amended paragraph (r) and added a new paragraph relating to the flight of a jump aircraft.	<i>Minor change</i> Adds the requirement to brief persons on board parachuting aircraft about the physical location they must occupy during the flight, ensuring the aircraft stays within weight and balance limits.
Section 20.07 Purpose (Carriage of animals)	Added a clarification Note.	<i>Minor change</i> Note added to clarify there are currently no requirements in this section.
Section 21.01 Purpose (Use of certain frequencies — radio qualifications required)	Added two kinds of radio frequencies for which persons are required to be authorised or qualified to use.	<i>Minor change</i> The combined effect of regulations 91.400 and 91.625, plus the new definition of aviation safety radio frequency in the CATS regulations and its effect on Part 64 of CASR, meant that a person would have been able to transmit on a broadcast area or published CTAF at a non-controlled aerodrome that was not a certified, registered, military or designated without needing any Aeronautical Radio Operator's Certificate. This could have had unintended negative safety consequences. Additionally, persons transmitting on a radio in an MBA need to be authorised or qualified in accordance with paragraph 91.625 (1) (b). Neither of these additions modify existing practice.
Section 21.02 Purpose (Use of radio —	Corrected wording to allow flight crew other than the PIC to make radio calls.	<i>Minor change</i> Current wording would require the PIC to personally make the reports and broadcasts. This correction is needed to allow other crew use of the radio, and the PIC needs to ensure reports and broadcasts are made.

Part 91 MOS provision	Description of amendment	Explanation of amendment
broadcasts and reports)		
Section 21.03 Prescribed broadcasts and reports — general	Corrected use of ATS to air traffic service.	<i>Minor change</i> Amended the use of ATS where incorrect and replaced with <i>air traffic service</i> .
Section 21.04 Non-controlled aerodromes — prescribed broadcasts (new title)	Editorial correction for the use of CTAF wording and PIC to ensure broadcasts made.	<i>Minor change</i> Corrected the use of CTAF, which is a frequency, not a place. Also corrected wording to allow other flight crew to make broadcasts, while the PIC must ensure broadcasts occur.
Section 21.05 Controlled aerodromes and controlled airspace — prescribed reports	Editorial corrections for use of ATC service instead of ATS. Addition of reference to aircraft on the ground at a controlled aerodrome and reports prior to entering Class G airspace. Corresponding corrections to the table for the above situations.	<i>Minor change</i> Added wording to cover aircraft on the ground at controlled aerodromes to make reports. Amended usage of ATS that are incorrect and replaced them with <i>ATC</i> <i>service</i> . Corrected table to include the additions and corrections above.
Section 21.06 IFR aircraft in Class G airspace — prescribed reports	Addition of alleviation for radio contact on ground and after departure for IFR aircraft in class G. Editorial correction for PIC to ensure radio reports are made.	<i>Minor change</i> Added the alleviation for IFR aircraft in class G who cannot contact air traffic service on the ground or after departure to continue under certain circumstances, as per current practice and AIP ENR 1.1 para 9.1.1, as this was omitted in error. Editorial correction to allow other flight crew to make radio reports, as the PIC is required to ensure calls are made, not make the call.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 21.07	Editorial correction for PIC to ensure radio	Minor change
VFR aircraft in Class E or G airspace — prescribed reports	reports are made.	Editorial correction to allow other flight crew to make radio reports, as the PIC is required to ensure calls are made, not make the call.
Section 21.08	Editorial correction for PIC to ensure radio	Minor change
Flights in RVSM airspace — prescribed reports	reports are made.	Editorial correction to allow other flight crew to make radio reports, as the PIC is required to ensure calls are made, not make the call.
Section 21.09	Added a new section to define radio use	Machinery change
Flights in mandatory broadcast area —	within MBAs.	This new section is added to support the addition of mandatory broadcast areas and clarify that the PIC is responsible to ensure radio calls are made.
prescribed reports and reports		Table 21.09 is added to list specific radio requirements within MBAs.
Paragraph	Deleted paragraph.	Minor change
26.01 (3) (c)		The topic of this paragraph is now being covered in section 26.04.
Purpose (Equipment)		
Section 26.02	Added editorial exclusion and deleted	Minor change
Approval of aircraft equipment	paragraph.	Excludes Division 26.16 from requiring Part 21 approvals and includes a Note for clarification, while removing the paragraph that is now not needed.
Section 26.04	Paragraph reworded for clarity.	Minor change
Serviceability of equipment		Section is reworded to start with the requirement that equipment required by this Chapter be operative, and then states the allowable exceptions.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 26.07	Added two Notes after paragraph (1) (b).	Minor change
Aeroplane VFR flight by night		The first Note provides a cross-reference to the definition of <i>approved GNSS</i> . This same Note is already in other places in the Part 91 MOS.
		The second Note provides a cross-reference to the new section 11.03 – Oceanic airspace, referring to a special navigation system requirement contained in that section.
Section 26.08	Added a Note at the end of subsection (1).	Minor change
Aeroplane IFR flight	cross-referring to the new section 11.03 - long range navigation system requirements for certain oceanic airspace.	This addition provides a cross-reference to the new section 11.03 – Oceanic airspace, referring to a special navigation system requirement contained in that section.
Subsection 26.11 (1)	Added two Notes after paragraph (1) (b).	Minor change
Rotorcraft VFR flight by night		The first Note provides a cross-reference to the definition of <i>approved GNSS</i> . This same Note is already in other places in the Part 91 MOS.
2) mgn		The second Note provides a cross-reference to the new section 11.03 – Oceanic airspace, referring to a special navigation system requirement contained in that section.
Subsection 26.11 (4)	Paragraph reframed for clarity.	Minor change
Rotorcraft VFR flight by night		The multiple negative phrases are reframed in the positive for ease of interpretation.
Subsection 26.12 (1)	Added a Note.	Minor change
Rotorcraft IFR flight		Added a Note that provides a cross-reference to the new section 11.03 – Oceanic airspace, referring to a special navigation system requirement contained in that section.
Subsection 26.12 (2)	Formatting only.	Minor change
Rotorcraft IFR flight		Remove an unwanted space.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 26.18 Radiocommunication systems	Added requirement for MBAs.	<i>Machinery change</i> This change is needed to add mandatory broadcast areas in section 26.18 and require radios for flight within an MBA.
Section 26.19 When aircraft may begin a flight with inoperative radiocommunications	Add requirements for inoperative radio within an MBA and align the existing Class G airspace requirements to those of the MBA for ease of use by the industry.	<i>Minor change</i> Add new wording to more accurately align the Class G requirements for inoperative radios in certain Class G situations.
Subsection 26.22 (6) Anti-collision lights	Renumbered subsection.	<i>Minor change</i> Amended to fix the incorrect numbering of the last subparagraph.
Subsection 26.24 (1) Navigation lights	Deleted the requirement for navigation lights to be fitted (and as a consequence displayed) in conditions of poor visibility.	<i>Minor change</i> The phrase <i>poor visibility</i> was a carryover from regulation 195 of CAR. However, the phrase has never been defined and the requirement to ensure navigation lights are fitted during conditions of poor visibility cannot be practically met. One example of the impracticality is where a flight takes off not intending to operate in conditions of poor visibility (which is undefined) but then encounters such conditions in flight. A review of comparable regulatory requirements (FAA, EASA, NZ CAA) and ICAO standards has identified that navigation light requirements in those rules are only linked to operating at night – that is, the existing Australian rule regarding navigation lights being fitted in poor visibility is unique. CASA considers that this requirement should be deleted.
Section 26.27 Aeroplane airborne collision avoidance system — ACAS II	Added clarification Note.	<i>Minor change</i> Note added to clarify there are currently no requirements in this paragraph.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 26.28 ACAS II requirements for use	Added clarification Note.	<i>Minor change</i> Note added to clarify there are currently no requirements in this paragraph.
Section 26.29 Flight with inoperative ACAS	Added clarification Note.	<i>Minor change</i> Note added to clarify there are currently no requirements in this paragraph.
Section 26.31 Aeroplane flight data recorder	Editorial fix.	<i>Minor change</i> Corrects wording to achieve current situation and policy intent, as the use of 'and' was used in error.
Section 26.32 Aeroplane cockpit voice recorder	Editorial fix.	<i>Minor change</i> Corrects wording to achieve current situation and policy intent, as the use of 'and' was used in error.
Section 26.39 Data link recorder	Added clarification Note.	<i>Minor change</i> Note added to clarify there are currently no requirements in this paragraph.
Subsection 26.43 (1) Supplemental oxygen	Editorial fix.	<i>Minor change</i> Corrects wording to achieve current situation and policy intent, as the use of '10,000' was used in error.
Subsection 26.52 (1) Aircraft flown with inoperative ELT	Add additional requirement to fix omission.	Minor changeThe current wording would allow an aircraft that requires a single life raft to have an inoperative ELT.Added wording to provide that the section also applies to an aircraft that is not required to carry a life raft under section 26.60, which achieves the current situation and policy intent as per CAR 252A and CAO 20.11 para 6.

Part 91 MOS provision	Description of amendment	Explanation of amendment
26.53 (3) (c) Hand-held fire extinguishers — aeroplanes Section 26.55 Sea anchors etc. and sound signals — seaplanes, amphibians and certain rotorcraft (new title)	Replace reference to earlier subparagraph, with wording from earlier subparagraph, for clarity. Added rotorcraft to the section heading and paragraph (1) (a).	<ul> <li>Minor change         The current wording was reported as confusing.         Wording changed for clarity, with no change to the outcome.     </li> <li>Minor change         As the definition of amphibian does not contain any rotorcraft, the addition of rotorcraft is needed to achieve original intent.     </li> </ul>
Section 26.63 Definitions (Remote areas)	Corrected reference to the Part 91 MOS section.	<i>Minor change</i> Existing reference incorrect, the correct reference is 26.65.
Paragraph 26.65 (1) (a) Meaning of remote area	Adjusted name of the corner of the remote area.	<i>Minor change</i> The existing NW corner of the WA remote area is Talgarno, which was a post WW2 temporary military base that is no longer on current maps. Anna Plains is the station where Talgarno was located and will replace it on the remote area map. The station airstrip is VFR waypoint 'Anna Plains', which is <1km from Talgarno waypoint.
Section 26.66 Exceptions to (E)TSO or NAA requirements (new section)	Added a new section into previously reserved numbering.	Machinery changeThis new section is intended to replicate an existing CAO 20.18 provision that was inserted into the CAO after the initial Part 91 MOS was consulted.Subsections (1) and (2) are intended to replicate the existing CAO 20.18 paragraphs 9B.12 and 9C.11.Subsection (3) is intended to replicate existing clauses of Part B of CAO 20.18 Appendix XIII.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 26.67	Added multiple new definitions and deleted	Machinery change
Definitions (Transponders and	reference to Part 103 aircraft.	Multiple definitions are inserted from CAO 20.18 in relation to the VFR ADS-B modifications done to that CAO that have not yet been incorporated into this MOS.
surveillance equipment)		Deletion of reference to Part 103 aircraft, as CASR 91.030 disapplies Subpart 91.K (91.810) for Part 103, where 91.810 is the head of power for chapter 26 in the Part 91 MOS.
Section 26.68	Amended the title and multiple areas within	Machinery change
Required surveillance equipment	this section.	CAO 20.18 was amended after the initial Part 91 MOS was consulted to include the colloquially known 'VFR ADS-B requirements' that optionally permits the use of certain surveillance equipment but only if that equipment meets certain standards.
(new title)		This section of the MOS is amended to match the effect of the existing CAO 20.18 which was amended to include the VFR ADS-B matters after the initial Part 91 MOS was consulted.
Section 26.68A	Added a new section.	Machinery change
Requirements for other surveillance equipment for VFR		CAO 20.18 was amended after the initial Part 91 MOS was consulted to include the colloquially known 'VFR ADS-B requirements' that optionally permits the use of certain surveillance equipment but only if that equipment meets certain standards.
aircraft (new section)		This new section contains the broad requirements for the use of such equipment with additional requirements specific to individual kinds of permitted equipment included as new sections slightly later in the MOS.
Section 26.69	Replaced the entire section.	Machinery change
Operation of surveillance		Section replaced to amend mention of <i>transponders</i> with <i>surveillance equipment</i> , and to differentiate between mandatory and optional surveillance equipment.
equipment — general requirements (new title)		CAO 20.18 was amended after the initial Part 91 MOS was consulted to include the colloquially known 'VFR ADS-B requirements' that optionally permits the use of certain surveillance equipment but only if that equipment meets certain standards.
		This section is amended to ensure it properly integrates with the use of the term <i>surveillance equipment</i> in place of <i>transponder</i> (where necessary), and also meshes

Part 91 MOS provision	Description of amendment	Explanation of amendment
		with the new section 26.68A that outlines the optional use of certain surveillance equipment.
Section 26.70 Mode S transponders, ADS-B OUT and electronic conspicuity equipment — specific requirements (new title)	A number of small amendments made to include correct references where necessary to the VFR ADS-B equipment and other minor editorial changes.	<ul> <li>Machinery change</li> <li>Multiple amended wording added to include other kinds of ADS-B equipment that transmit an ADS-B OUT signal that are portable.</li> <li>Deletion of references to ASAO, as regulation 91.030 disapplies Subpart 91.K (regulation 91.810) for Part 103, where regulation 91.810 is the head of power for Chapter 26 of the Part 91 MOS.</li> </ul>
Section 26.71 Alternate GNSS position sources for ADS-B OUT — requirements	Amended to replace <i>FDE</i> with <i>GNSS FDE</i> .	<i>Minor change</i> The correct defined term is <i>GNSS FDE</i> .
Section 26.72 Alternate ADS-B OUT equipment configuration — requirements	This section is considerably simplified.	<i>Machinery change</i> Multiple amended wording added with deletions to replicate existing CAO 20.18 provisions and the original policy intent.
Section 26.72A Approved Mode S transponder with Class B TABS position source device equipment configuration — requirements	Added a new section containing the requirements for approved Mode S transponder with Class B TABS position sources (if they are used).	<b>Machinery change</b> This section includes the approved Mode S transponder with Class B TABS position source requirements from the existing CAO 20.18 provisions in Appendix XII. CAO 20.18 was amended after the initial Part 91 MOS was consulted to include the colloquially known 'VFR ADS-B requirements' that optionally permits the use of certain surveillance equipment but only if that equipment meets certain standards.

Part 91 MOS provision	Description of amendment	Explanation of amendment
Section 26.72B	Added a new section containing the requirements for integrated TABS devices (if they are used).	Machinery change
Approved integrated TABS device — requirements		This section includes the integrated TABS device requirements from the existing CAO 20.18 provisions in Appendix XIII. CAO 20.18 was amended after the initial Part 91 MOS was consulted to include the colloquially known 'VFR ADS-B requirements' that optionally permits the use of certain surveillance equipment but only if that equipment meets certain standards.
Section 26.72C	Added a new section containing the requirements for EC devices (if they are used).	Machinery change
Approved EC device — requirements		This section includes the EC device requirements from the existing CAO 20.18 provisions in Appendix XIV. CAO 20.18 was amended after the initial Part 91 MOS was consulted to include the colloquially known 'VFR ADS-B requirements' that optionally permits the use of certain surveillance equipment, but only if that equipment meets certain standards.
Section 26.73	Replaces <i>transponder</i> with <i>surveillance equipment</i> .	Minor change
Aircraft flown with inoperative surveillance equipment (new title)		This change is necessary due to the changed language earlier in the surveillance equipment division to have transponders as one kind of surveillance equipment. This amendment also explicitly links to the mandatory surveillance equipment requirements in section 26.68 and not the new optional surveillance equipment mentioned in the new section 26.68A.
Subsection 28.03 (5)	Added a new subparagraph.	Minor change
MEL — contents		Added clarification for the inclusion of RCP 240 and RSP 180 in the MEL.