



SUMMARY OF PROPOSED CHANGE



Proposed new Part 121 MOS – Australian air transport operations - larger aeroplanes

Part 121 MOS – Tranche 2

Chapters 9, 12, 13 and 14

Date	July 2020
Project number	OS 99/44
File ref	D20/260303

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Acronyms

The acronyms and abbreviations used in this AC are listed in the table below.

Acronym	Description
AGL	Above ground level
AOC	Air Operator Certificate
ASAP	Aviation Safety Advisory Panel
CAO	Civil Aviation Order
CAR	<i>Civil Aviation Regulations 1988</i>
CASA	Civil Aviation Safety Authority
CASR	<i>Civil Aviation Safety Regulations 1998</i>
FAR	<i>Federal Aviation Regulations</i>
m	Metres
MOS	Manual of Standards
PIC	Pilot in command
TWG	Technical Working Group

Definitions

Terms that have specific meaning within this AC are defined in the table below.

Term	Definition
Adult	
Air transport operation	
Australian air transport operation	
Cabin crew member	
Cargo transport operation	
Carry-on baggage	
Child	
Operational flight plan	
Passenger	

References

Regulations

Regulations are available on the Federal Register of Legislation website <https://www.legislation.gov.au/>

Document	Title
Part 119 of CASR	Civil Aviation Safety Amendment (Part 119) Regulations 2018
Part 121 of CASR	Civil Aviation Safety Amendment (Part 121) Regulations 2018
Part 91 of CASR	Civil Aviation Safety Amendment (Part 91) Regulations 2018
Operations Definitions (added to CASR for the new Part 91 and 121)	Civil Aviation Safety Amendment (Operations Definitions) Regulations 2018
CAR	Civil Aviation Regulations 1988
CAO 20.7.1B	Aeroplane weight and performance limitations - Aeroplanes above 5,700kg - All operations (turbine and piston-engined)
CAO 20.7.2	Aeroplane weight & performance limitations - Aeroplanes not above 5,700kg - Regular public transport operations
CAO 20.11	Emergency & life saving equipment and passenger control in emergencies
CAO 82.0 Instrument 2014	
CAO 82.1	Conditions on Air Operators' Certificates authorising charter operations and aerial work operations
CAO 82.3	Conditions on air operators' certificates authority regular public transport operations in other than high capacity aircraft
CAO 82.5	Conditions on air operators' certificates authority regular public transport operations in high capacity aircraft
CAO 100.7 Instrument 2015	
FAR	Code of Federal Regulations Title 14 Aeronautics and Space Parts 1 to 199*

International Civil Aviation Organization documents

International Civil Aviation Organization (ICAO) documents are available for purchase from <http://store1.icao.int/>

Document	Title
ICAO Doc 7300/9	Convention on International Civil Aviation
Annex 6 Part I	Annex 6 to the Convention on International Civil Aviation - Operation of Aircraft - Part I - International Commercial Air Transport — Aeroplanes

Advisory material

CASA's advisory circulars are available at <http://www.casa.gov.au/AC>

CASA's Civil Aviation Advisory Publications are available at <http://www.casa.gov.au/CAAP>

CONSULTATION DRAFT FOR PROPOSED NEW PART 121 MOS – AUSTRALIAN AIR TRANSPORT
OPERATIONS - LARGER AEROPLANES

Document	Title
CAAP 215-1(3)	Guide to the preparation of Operations Manuals
CAAP 217-1(0)	CAR 217 Flight Crew-Training and checking organisations
CAAP 235-1(1)	Standard passenger and baggage weights
CAAP 235-2(2)	Carriage and restraint of small children in aircraft
CAAP 253-1(1)	Ditching
CAAP 253-02 v2.0	Passenger safety information: Guidelines on content and standard of safety information to be provided to passengers by aircraft operators

Introduction

This document is issued by the Civil Aviation Safety Authority (CASA) and describes proposed aviation law changes designed to ensure that Australian aviation safety requirements are current and appropriately address safety risks. CASA's policies require that the aviation safety regulations and subordinate legal instruments (such as a Manual of Standards (MOS)) must:

- be necessary to address known or likely safety risks
- provide for the most efficient allocation of industry and CASA resources
- be clear and concise
- where appropriate, be aligned with international standards and be drafted in outcome-based terms.

CASA has been progressively transitioning the *Civil Aviation Regulations 1988* (CAR) to the *Civil Aviation Safety Regulations 1998* (CASR). In 2018, a total of six CASR parts¹ were consulted that encompassed the current private, aerial work, charter and RPT sectors of the aviation industry. These CASR parts are:

- Part 91 - General operating and flight rules
- Part 119 - Australian air transport operators – certification and management
- Part 121 - Australian air transport operations – larger aeroplanes
- Part 133 - Australian air transport operations – rotorcraft
- Part 135 - Australian air transport operations – smaller aeroplanes
- Part 138 - Aerial work operations

Operators and Part 121

Part 121 of the *Civil Aviation Safety Regulations 1998* (CASR) applies to all operators conducting Australian air transport operations using larger aeroplanes, the operator's flight crew members, cabin crew members and ground support personnel.

Therefore, CASA anticipates that this public consultation will be of interest to

- current operators, flight crew and cabin crew who conduct regular public transport and charter operations in larger aeroplanes² (see regulation 121.005)

¹ Referred to as the flight operations regulations.

² Regulation 121.005 of CASR states that the applicability of Part 121 is as follows:

(1) This Part (other than Subpart 121.Z) applies to the operation of a multi-engine aeroplane for an Australian air transport operation if either or both of the following apply in relation to the aeroplane:

- (a) it has a maximum operational passenger seat configuration of more than 9;
- (b) it has a maximum take-off weight of more than 8 618 kg.

Note: For the additional application of Subpart 121.N, see regulation at 121.685.

(2) Subpart 121.Z applies to the operation of a single-engine aeroplane for an Australian air transport operation if both of the following apply in relation to the aeroplane:

- (a) it has a maximum operational passenger seat configuration of more than 9;
- (b) it has a maximum take-off weight of not more than 8 618 kg.

- prospective operators under Part 119 of the *Civil Aviation Safety Regulations 1998* (CASR) and Part 121 of CASR.

Does this consultation on the Part 121 MOS apply to a single-engine operator?

Within the entire Part 121 legislative suite (i.e. the regulations and MOS), only subpart 121.Z of CASR applies to single-engine operators. As there are no 121 MOS powers within the subpart 121.Z regulations, none of the 121 MOS applies to these operators. The effect of regulation 121.760 is that Part 135 of the *Civil Aviation Safety Regulations 1998* (CASR) and the Part 135 MOS, in addition to subpart 121.Z, applies to these operators.

Consultation plan

For the purposes of more focussed consultation activities, CASA has broken the consultation into three tranches. As much as possible, CASA has grouped chapters that are intertwined or related to each other into the same tranche. The three tranches are:

- Tranche 1 – Chapters 3, 5, 6, 8 and 10 (*the 1st consultation - still open*)
- Tranche 2 – Chapters 9, 12, 13 and 14 (*this consultation*)
- Tranche 3 – Chapters 2, 4, 7 and 11.

The Part 121 MOS is currently planned to contain 14 chapters. These chapters are:

- Chapter 1 – preliminary
- Chapter 2 – extended diversion time operations
- Chapter 3 – carriage of documents and emergency and survival equipment information
- Chapter 4 – alternate aerodromes
- Chapter 5 – operational flight plans
- Chapter 6 – narrow runway width calculations
- Chapter 7 – fuel requirements
- Chapter 8 – safety briefings and instructions
- Chapter 9 – performance
- Chapter 10 – weight and balance
- Chapter 11 – equipment
- Chapter 12 – flight crew
- Chapter 13 – cabin crew
- Chapter 14 – emergency evacuation

There are no restrictions on respondents commenting on earlier tranches during later consultations. The chapter contents of earlier tranches will be included within the proposed MOS document and there will be a single consultation question for respondents to provide comment on chapters associated with earlier tranches. To avoid overlapping responses and complicating the feedback analysis, CASA requests that respondents do not repeat feedback from earlier tranches within a later tranche consultation.

For Tranche 2, CASA has discussed the contents of Chapters 13 and 14 in detail with a Technical Working Group (TWG) appointed by the Aviation Safety Advisory Panel (ASAP). However, the TWG had a short window of opportunity to provide email feedback on Chapters 9 and 12 prior to the commencement of this consultation. None of these activities constitute a specific endorsement of the tranche by the TWG.

Previous consultation activities

The following is a list of Part 121 of CASR consultation meetings since 2018 (note there were numerous previous activities during the period 2014 – 2016):

- 20-21 June 2018, Part 121 industry technical working group meeting.
- 17 October 2018, Part 121 industry technical working group videoconference.
- 19 November 2019, Part 121 MOS industry technical working group meeting.
- 4 May 2020, Part 121 MOS industry technical working group videoconference.
- 29 May 2020, Part 121 MOS industry technical working group videoconference.
- 12 June 2020, Part 121 MOS industry technical working group videoconference.
- 26 June 2020, Part 121 MOS industry technical working group videoconference.

TWGs, with industry members appointed by the ASAP, met before and after the public consultation activities and provided advice to CASA regarding the proposed regulations. The regulations were made into law in December 2018 and specified a commencement date of 25 March 2021. Subsequently, in February 2019, the CASA Director of Aviation Safety publicly announced that the start date would be moved to 2 December 2021.

At the time of the consultation of Part 121 of CASR, an indicative, technical (i.e. non-legal) draft of the Part 121 MOS, was available as part of the consultation documentation. CASA committed to industry that it would engage with it to develop the final Part 121 MOS and that it would be finalised at least 12 months in advance of the start date of the regulations.

The interrelationship between Part 121 and Part 119 of CASR

Part 119 of CASR outlines the rules for applicants for, and holders of, Air Operators' Certificates (AOCs) which authorise the operation of aeroplanes or rotorcraft for Australian air transport operations. The flying or operation of an aeroplane or rotorcraft for an Australian air transport operation is a prescribed purpose for subsection 27(9) of the *Civil Aviation Act* (the Act). As such, Part 119 of CASR requires a person to hold an Australian air transport AOC to conduct Australian air transport operations. Therefore, Part 121 operations are not authorised unless an operator meets the requirements in Part 119 of CASR for the issue of an Australian air transport AOC.

In addition to the above, Parts 119 and 121 of CASR interact to outline further requirements. Generally, Part 119 of CASR will specify the organisational aspects of requirements whereas the specific operational Part (i.e. Part 121 or 133 or 135 of CASR) will state the operational standard for the requirement. To gain a full understanding of a topic both CASR parts must be read in conjunction.

One example of interaction is:

- Part 119 of CASR requires an Australian air transport operator to have a training and checking system and specifies the broad requirements and characteristics of that system
but
- Subparts 121.N and 121.P of CASR specify the operational requirements for that system specific to Part 121 operators and include the detailed rules for the training and checking of an operator's flight crew members and cabin crew members.

The interrelationship between Part 121 and Part 91 of CASR

Part 91 of CASR and its subordinate MOS contain the general operating and flight rules. These rules were publicly consulted from 27 March to 6 May 2018. These documents are available on the CASA website <<https://www.casa.gov.au/standard-page/casr-part-91-general-operating-and-flight-rules>>

Regulation 91.035 of CASR contains a table that *turns off* or disapplies certain Part 91 requirements in favour of Part 121 requirements. In relation to air transport operations, certain Part 91 rules are turned off as the Part 121 rules have specified a higher safety standard or because the requirement to hold an AOC has put in place system-based safety defences that achieve the safety standards by an alternative means.

Purpose and scope of this consultation

This public consultation seeks feedback on:

- proposed amendments to Part 121 regulations which were made in 2018 and commence in December 2021
- tranche 2 of the proposed Part 121 MOS.

In this consultation, only the proposed regulation amendments relevant to tranche 2 of the MOS are being consulted. These regulation changes are being proposed due to legal issues which have been identified during the detailed legal drafting of the MOS and issues identified during the detailed TWG discussions that have occurred since the making of the regulations in 2018.

The regulation changes outlined propose the deletion of six (6) regulations and changes to fifteen (15) regulations and the addition of one (1) regulation. Aside from the proposed additional regulation and its two interrelated regulations proposed to be deleted, all these changes are legally technical amendments and are not amendments that change the aviation safety outcome or standard. The technical amendments are included in this consultation to ensure the industry is aware of the possible changes and has an opportunity to provide feedback. However, it should be noted that the exact phrasing of the changes may differ from those outlined in this consultation. The proposed regulation amendments relevant to tranches 1 and 3 of the MOS are being consulted during those specific consultation activities.

Tranche 2 of the proposed Part 121 MOS encompasses four of the 14 chapters. These are:

- Chapter 9 – performance
- Chapter 12 – flight crew
- Chapter 13 – cabin crew
- Chapter 14 – emergency evacuation.

The MOS only contains requirements related to a Part 121 regulation that specifically states the MOS can contain certain information or prescribe certain requirements or similar language. Each chapter (or division if applicable) of the MOS begins by outlining the regulations which empowers that portion of the MOS.

The future legislative structure is such that a legal requirement which was previously in a 1988 regulation has not necessarily migrated into a Part 91, 119 or 121 regulation and neither has a legal requirement previously in a CAO necessarily been migrated into a MOS. Some CAO content is now in regulation and some previous regulation content is now in a MOS.

However, the tranche 2 MOS chapters (and the specific Part 121 regulations that empower each chapter) broadly have replaced, for an aircraft conducting a Part 121 operation, some of the rules (those related to aircraft equipment, aircraft performance, crew training and evacuation demonstrations) contained in the following elements of current law:

- Regulation 208 of CAR (Number of operating crew)
- Regulation 217 of CAR (training and checking organisation)
- Regulation 218 of CAR (route qualifications of a pilot in command of a regular public transport aircraft)
- Regulation 219 of CAR (route qualifications of a pilot in command of a charter aircraft)

- Regulation 235 of CAR (take-off and landing of aircraft etc)
- CAO 20.7.1B (Aeroplane weight and performance limitations - aeroplanes above 5700kg or 2722kg if 2 or more jet engines)
- CAO 20.7.2 (Aeroplane weight and performance limitations - aeroplanes not above 5700 kg - regular public transport operations)
- CAO 20.11 (Emergency and lifesaving equipment and passenger control in emergencies)
- CAO 82.0 Instrument 2014
- CAO 82.1 (Conditions on Air Operators' Certificates authorising charter operations and aerial work operations)
- CAO 82.3 (Conditions on Air Operators' Certificates authorising RPT in other than high capacity aircraft)
- CAO 82.5 (Conditions on Air Operators' Certificates authorising RPT in high capacity aircraft)

Amendments to specific Part 121 regulations

Regulation 121.395

- The legal structure of this regulation, where the MOS must specify specific circumstances when take-off performance must be calculated, and then must specify the *method* by which the performance is to be calculated, creates unnecessary complexity for the legal drafting of the MOS performance chapter.
- It is proposed that these convoluted MOS powers be replaced with an ability for the MOS to prescribe *requirements related to aeroplane take-off performance*, in a structural manner similar to that for fuel within regulation 121.235.
- The performance chapter of the MOS contained in this proposed tranche (chapter 9) has been drafted to encompass this proposed regulatory change.

Regulation 121.400

- Assuming that regulation 121.395 is amended as proposed above, then this regulation becomes redundant.
- It is proposed that this regulation be deleted (provided regulation 121.395 is also amended).

Regulation 121.405

- This entire regulation is redundant as it creates an offence for a landing weight to be above a certain amount at the beginning of a flight, i.e. it places limitations on the take-off weight. Regulation 121.395 already has the ability to cover these specific circumstances as the weight limitations for take-off, similar to the current rules, are set as being the lowest of the aircraft MTOW, the aircraft MLW, the weight which meets the take-off distance and take-off obstacle clearance requirements, the weight that meets en-route obstacle clearance requirements, the weight that enables a landing missed approach to avoid obstacles and the weight which enables landing distance requirements to be met.
- The alternative to deleting this regulation entirely is that it be modified similar to regulation 121.395 by permitting the MOS to prescribe requirements related to planned landing weights instead of having to prescribe circumstances for when to calculate a planned landing weight and the methods of calculation that must be used.
- The performance chapter of the MOS contained in this proposed tranche (chapter 9) has been drafted to encompass the amended version of this regulation.
- It is proposed that this regulation be deleted.

Regulation 121.410

- Assuming that regulation 121.405 is either deleted or amended as outlined above, then this regulation becomes redundant and unnecessary.

- It is proposed that this regulation be deleted on the provision that regulation 121.405 is deleted or amended.

Regulation 121.415

- The legal structure of this regulation, where the MOS must specify specific circumstances when landing performance must be calculated in-flight, and then must specify the *method* by which the performance is to be calculated, creates unnecessary complexity for the legal drafting of the MOS performance chapter.
- It is proposed that these convoluted MOS powers be replaced with an ability for the MOS to prescribe *requirements related to aeroplane landing performance*, in a structural manner similar to that for fuel within regulation 121.235.
- The performance chapter of the MOS contained in this proposed tranche (chapter 9) has been drafted to encompass this proposed regulatory change.

Regulation 121.420

- If regulation 121.415 is amended as outlined above, this regulation becomes redundant.
- It is proposed that this regulation be deleted on the provision that provided regulation 121.415 is amended.

Regulations 121.425 and 121.450

- These regulations were originally intended to permit the MOS to carry-over, in a prescriptive fashion, the existing electronic flight bag (EFB) requirements from Appendix 9 to CAO 82.0.
- CASA has conducted further analysis on the way ICAO and other comparable regulators outline rules for the use of EFBs and has determined that prescriptively outlining requirements, when the EFB technology is rapidly changing and maturing, would not efficiently achieve the requisite aviation safety outcomes.
- It is proposed to:
 - Delete regulation 121.425.
 - Delete regulation 121.450.
 - Insert a new regulation within Division 121.D.9 requiring an operator's exposition to include procedures for the use of EFB by flight crew members and the management of EFB by the operator. CASA would issue an Advisory Circular outlining similar information related to EFBs as contained within FAA, NZ and EASA guidance materials.
 - Insert a requirement, within paragraph (a) of regulation 119.020 (the definition of significant change for Australian air transport operators), that an operator commencing the use of EFBs would require pre-approval from CASA.
 - o For existing charter and RPT operators, this would have no effect as if existing operators are using EFBs prior to commencement, they would have already complied with clause 11 of CAO 82.0 and Appendix 9 of CAO 82.0 and therefore would not be *commencing using an EFB*.

- o For an operator applying for an air transport AOC after the start of the Parts 119 and 121 of CASR, they would not require any specific approval as their procedures for EFB usage and management would be included within their proposed exposition and, if the AOC was granted, their procedures would have been accepted by CASA.
- o If an existing operator, or a new operator, proposes to commence for the first time the use of EFBs after the start of Parts 119 and 121 of CASR, this would require an application to CASA and the issuance of a one-off approval. There would be a cost, in line with that required to obtain individual, topic specific approvals under existing regulations.
- o This would align CASA with ICAO Annex 6 Part I standard 6.25.22 which states:

The State of the Operator shall approve the operational use of EFB functions to be used for the safe operation of aeroplanes.

- o An EFB approval would be recorded on the operator's operations specifications document.

Regulation 121.475 - new subregulation

- Unlike subpart 121.P (see subregulation 121.640(4)), Subpart 121.N, does not contain an ability for an operator to be issued an approval for their flight crew training and checking requirements to use alternative methods other than those required by the subpart 121.N regulations and the Chapter 12 of the Part 121 MOS.
- It is proposed that a new subregulation be added to this regulation which enables the issuance of such an approval for flight crew training and replicates the outcome of subregulation 121.640(4).
- The addition of this subregulation does not have an impact on the drafting of Chapter 12 of the MOS.

Regulation 121.475 - amendment to paragraph (2)(f)

- Paragraph 121.475(2)(f) specifies that a flight crew member must be qualified in accordance with the requirements of either regulations 121.490, 121.495 or 121.500.
- However, a developmental error has occurred and the current regulation wording has left out the cruise relief qualification requirements. These references should instead state that a flight crew member must be qualified in accordance with the requirements of either regulations 121.495, 121.500 or 121.505, i.e. This is due to regulation renumbering activities that occurred prior to making and this developmental mistake was not identified at the time.
- It is proposed to amend this paragraph as outlined.

Regulations 121.500 and 121.505

- Paragraph 121.475(2)(f), once amended as outlined above, will require flight crew members who are co-pilots or cruise relief co-pilots, to be qualified in accordance with regulations 121.500 and 121.505.

- However, these regulations currently do not deem a co-pilot or cruise relief co-pilot undertaking supervised line flying to be qualified for the purposes of the regulation. If these regulations are not amended, this would require operators to have a safety pilot on every co-pilot or cruise relief co-pilot line training flight. This regulatory outcome is incorrect and needs to be changed to continue to enable current supervised line flying activities.
- It is proposed that regulations 121.500 and 121.505 are appropriately amended to provide for co-pilots and cruise relief co-pilots (as appropriate), that are conducting supervised line flying, to be deemed to be flight crew members for the purposes of paragraph 121.475(2)(f).

Regulation 121.510

- The intent of this regulation was to continue the requirements of clause 7 of CAO 82.0, i.e. the mandatory simulator rule.
- However, the wording of paragraph (2)(a), which does not constrain the application of the regulation to training and checking events where the handling qualities of the aeroplane are affected, currently has the outcome of requiring all flight crew training and checking events (other than annual or 3-yearly safety and emergency equipment training and checking), to be done in the simulator if the aircraft exceeds the seating capacity trigger mechanism. Theoretically, a line check would have to be done in the simulator under this regulation as currently written. This regulatory outcome is incorrect and needs to be changed to enable line checks to continue to be conducted in the aircraft.
- It is proposed that this regulation be amended to achieve the same policy outcome of clause 7 of CAO 82.0 where training and checking is required for non-normal exercises and which would be interpreted by CASA in the same manner as that outlined in the definition of *non-normal exercise* within paragraph 7.1 of CAO 82.0 and the Note following this definition.

Regulation 121.555

- The legal structure of this regulation permits the MOS to prescribe matters to be included in initial training. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted.
- It is proposed that this regulation be amended to permit the MOS to prescribe requirements that must be met for initial training, instead of matters that must be included in initial training. This would result in wording similar to that contained within paragraph 121.560(1)(a) for initial training instead of conversion training.
- There would be no changes to the proposed flight crew chapter included in this consultation from an outcomes perspective however there would be some minor editorial changes.

Regulation 121.610

- The legal structure of this regulation permits the MOS to prescribe matters to be included in annual flight crew emergency and safety equipment training. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted.
- Instead of matters that must be included in the training, it is proposed that this regulation be amended to permit the MOS to prescribe requirements that must be met for annual flight crew emergency and safety equipment training. This would result in wording similar to paragraph 121.560(1)(a) and applied to annual emergency and safety equipment training instead of conversion training.
- There would be no changes to the proposed flight crew chapter included in this consultation from an outcomes perspective; however, there would be some minor editorial changes.

Regulation 121.620

- The legal structure of this regulation permits the MOS to prescribe matters to be included in flight crew 3 yearly emergency and safety equipment training. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted.
- It is proposed that this regulation be amended to permit the MOS to prescribe requirements that must be met for flight crew 3 yearly emergency and safety equipment training, instead of matters that must be included in the training. This would result in wording like paragraph 121.560(1)(a) and for 3 yearly emergency and safety equipment training instead of conversion training.
- There would be no changes to the proposed flight crew chapter included in this consultation from an outcomes perspective; however, there would be some minor editorial changes.

Regulation 121.705

- Paragraph 121.640(2)(a) requires a cabin crew member to have the recent experience required by regulation 121.705 prior to beginning a flight. The operator commits an offence if a cabin crew member does not have this required experience. One type allowable recent experience is the completion of an operator's refresher training. The minimum requirements for refresher training are not specified in the regulations and an operator would propose these requirements in their exposition.
- However, as regulation 121.705 does not allow for a cabin crew member to be conducting supervised line flying and meet the *recent experience requirements*, for an operator to avoid committing an offence their exposition would need to state that supervised line flying meets the requirements for refresher training. This is an illogical outcome of the regulatory structure.
- It is proposed to amend regulation 121.705 (or paragraph 121.640(2)(a)) so that supervised line flying is an exception to the recent experience requirement.

Regulation 121.710

- The legal structure of this regulation permits the MOS to prescribe matters to be included in initial training. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted.
- It is proposed that this regulation be amended to permit the MOS to prescribe requirements that must be met for initial training, instead of matters that must be included in the training. This would result in wording like paragraph 121.560(1)(a) and would be for initial training instead of conversion training.
- There would be no changes to the proposed cabin crew chapter included in this consultation from an outcomes perspective however there would be some minor editorial changes.

Regulation 121.715

- The legal structure of this regulation permits the MOS to prescribe matters to be included in conversion training. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted.
- It is proposed that this regulation be amended to permit the MOS to prescribe requirements that must be met for conversion training, instead of matters that must be included in the training. This would result in wording like paragraph 121.560(1)(a) and would be for cabin crew conversion training instead of flight crew conversion training.
- There would be no changes to the proposed cabin crew chapter included in this consultation from an outcomes perspective; however, there would be some minor editorial changes.

Regulation 121.725

- The legal structure of this regulation permits the MOS to prescribe matters to be included in cabin crew annual training. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted.
- It is proposed that this regulation be amended to permit the MOS to prescribe requirements that must be met for cabin crew annual training, instead of matters that must be included in the training. This would result in wording like paragraph 121.560(1)(a) and would be for cabin crew annual training instead of flight crew conversion training.
- There would be no changes to the proposed cabin crew chapter included in this consultation from an outcomes perspective; however, there would be some minor editorial changes.

Regulation 121.735

- The legal structure of this regulation permits the MOS to prescribe matters to be included in cabin crew 3 yearly training. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted.

- It is proposed that this regulation be amended to permit the MOS to prescribe requirements that must be met for cabin crew 3 yearly training, instead of matters that must be included in the training. This would result in wording like paragraph 121.560(1)(a) and would be for cabin crew 3 yearly training instead of flight crew conversion training.
- There would be no changes to the proposed cabin crew chapter included in this consultation from an outcomes perspective; however, there would be some minor editorial changes.

Regulation 121.755

- The legal structure of this regulation permits the MOS to prescribe requirements that must be met by the operator's emergency evacuation procedures. Recent legal advice has interpreted this wording in a limited fashion beyond that intended when the regulation was drafted. Specifically, the MOS was intended to be able to include requirements for the demonstrations of emergency evacuation procedures, in a similar fashion to those currently required by clause 15 of CAO 20.11 and long-standing practice.
- It is proposed that this regulation be amended to:
 - permit the MOS to prescribe requirements related to emergency evacuation procedures and the demonstration of emergency evacuation procedures; and
 - include an ability for an operator to gain an approval to not conduct the demonstration of emergency evacuation procedures as is currently outlined in subsections 2A and 2B of the proposed Chapter 14 of the MOS.
 - o These two subsections were deliberately included in the drafting of the MOS so that respondents had visibility of the types of circumstances in which CASA would consider granting an approval not to conduct a demonstration of emergency evacuation procedures.
- Chapter 14 of the MOS has been drafted to encompass this proposed regulatory change.

Tranche 2 of the MOS

Chapter 1 – Preliminary

This chapter provides the name of the instrument, the commencement details, the authority under which the MOS is made and relevant definitions.

Note: Definitions that will be prescribed by the MOS in later tranches have not yet been added.

This chapter will continue to be developed as more chapters are included in the next MOS consultation activities. The content in the chapter in this consultation includes the chapters in tranches 1 and 2.

Chapter 9 – Performance

The requirements in chapter 9 carry across the requirements currently in CAO 20.7.1B. The content of CAO 20.7.2 **has not been carried across** into Part 121.

CASA has assessed that the requirements of this chapter should be able to be met by the very small number of Part 121 aeroplanes with a MTOW below 5700 kg. Any feedback on this matter is welcome.

Division 1 - definitions for chapter

Normally, definitions for a MOS are contained at the beginning of the document. However, noting the number of defined terms necessary for the interpretation of this chapter, the relevant definitions are contained in this division. A number of terms common across the regulatory suite, such as *maximum take-off weight* and other similar terms, can be found in the unofficial combined CASR dictionary document provided with this consultation. It should be noted that the definitions for *wet* and *contaminated* in the unofficial dictionary have been modified to align more closely with ICAO. CASA has not yet proposed any amendments related to the ICAO Runway Condition Assessment Matrix (RCAM).

Division 2 - take-off weights

Regulation 121.395 prescribes requirements for ensuring an aeroplane's take-off weight is below certain weights. As outlined earlier in this document, the regulation structure is proposed to be changed to enable simpler MOS drafting.

The proposed standards are the same as currently required by CAO 20.7.1B, with the exception that the RNP requirements for the narrowing of the take-off obstacle clear area width have been simplified. Requirements are specified related to take-off distance, take-off run, obstacle clearance requirements under dry and wet conditions, en-route obstacle clearance under different engine failure scenarios and missed approach obstacle clearance.

Division 3 - planned landing weights

Regulation 121.405 prescribes requirements for ensuring an aeroplane's landing weight is below certain weights at the time of planning the flight. As outlined earlier in this document, this regulation is proposed to be either deleted or amended to enable simpler MOS drafting.

The proposed standards are very similar to those currently required by CAO 20.7.1B, with requirements specified related to dry, wet and contaminated runway conditions.

Division 4 - inflight landing weights

Regulation 121.415 prescribes requirements for calculating an aeroplane's landing weight prior to landing. As outlined earlier in this document, the regulation structure is proposed to be changed to enable simpler MOS drafting.

The proposed standards are the same as currently required by CAO 20.7.1B, with the requirements specified related to the use of certification data (i.e. the 1.67 and 1.92 multipliers) or the use of manufacturer supplied actual landing distance data.

Chapter 12 – Flight crew

With a small number of exceptions, the standards for flight crew training and checking are aligned to existing practices. Firstly, there is a new requirement for flight crew to extinguish an actual fire during initial training. Many operators within Australia currently conduct this training already and this requirement is aligned with both the FAA and EASA requirements. The second major difference is that it is proposed for flight crew to be required to conduct a fire drill in a smoke-filled (or simulated smoke-filled) environment during initial and 3-yearly training. Lastly, CAO 20.11 currently requires the completion of emergency training requirements every year; however, in Part 121 these requirements have been split between annual and 3-yearly requirements. This change provides significant alleviations from current standards.

All flight crew members that have already completed initial training prior to the start of the new regulations on 2 December 2021 will be deemed to have met the initial training requirements. For crew members currently undergoing conversion training, the requirements for conversion training within this MOS should not require the completion of any additional training or checking compared to current practices.

Operators can design their training flow and curricula to meet their requirements, provided the overall requirements of this proposed chapter are satisfied. Although the regulations separately require the completion of annual and 3-yearly training and checking before going flying on an Australian air transport operation, many of the annual and 3-yearly requirements may be satisfied by initial training or conversion training sequences where the sequences achieve both outcomes at once.

The kinds of training and checking sequences specified by the subpart 121.N regulations include:

- Initial training and check - non-recurrent (regulation 121.555 and included in this MOS Chapter 12 Division 2).
- Conversion training prior to supervised line flying - non-recurrent (subregulation 121.560(1) and included in this MOS Chapter 12 Division 3).
- Conversion training that is supervised line flying - non-recurrent (subregulations 121.560(2) and (3), not in the MOS).
- Command training - non-recurrent (regulation 121.565, not in the MOS).
- Recurrent flight training (paragraph 121.570(1)(b) and included in this MOS Chapter 12 Division 4).

- Part 121 proficiency check - recurrent (regulation 121.580 and included in this MOS Chapter 12 Division 5).
- Refresher training and check - recurrent (regulation 121.600, not in the MOS - the topic of this regulation is ground refresher training conducted on an annual basis).
- Line check - recurrent (regulation 121.590, not in the MOS).
- Annual emergency and safety equipment training and check - recurrent (regulation 121.610 and included in this MOS Chapter 12 Division 6).
- 3-yearly emergency and safety equipment training and check - recurrent (regulation 121.620 and included in this MOS Chapter 12 Division 7).

Division 1 - flight simulators use, specific aeroplane types

This division is intended to provide a structure that replicates the outcome currently achieved by Appendix 8 to CAO 82.0. That is, if there is an aeroplane type that would not normally require the use of a flight simulator under regulation 121.510, but the characteristics of the aeroplane are such that CASA believes a simulator should be used, the aeroplane type could be specified in this division of the MOS.

However, any such addition to the MOS would require a minimum of four weeks public consultation, in line with the requirements imposed on CASA by Subpart 11.J of CASR.

CASA has no intentions of including an aeroplane type in this division at this time.

Division 2 - initial training for flight crew

The requirements for initial training for flight crew are in regulation 121.555. The training covers knowledge and practical training activities and assessments relevant to the duties and responsibilities of the flight crew member's role for the operator and, in some cases, relevant to the specific type of aeroplane to which the crew member is assigned. Subject areas include:

- crew member duties and responsibilities
- communication and coordination
- fire and smoke detection and suppression
- fatigue and fitness for duty
- survival and, for air transport operations where cabin crew are not required to be carried by regulation 121.630, first aid and passenger handling.

Division 3 - conversion training for flight crew

The requirements for conversion training for flight crew are in regulation 121.560. Conversion training, as outlined in the regulation, consists of training required prior to commencing operations in a type of aeroplane for the first time and supervised line flying. The proposed content of this MOS chapter outlines the training required before conducting supervised line flying. Its purpose is to ensure crew members are competent performing their duties in their assigned type, or types, of aeroplane.

Some matters currently labelled by some operators as conversion training may have been outlined in this MOS as initial training and vice versa. As outlined in the initial training explanation above, provided the various requirements are met at the times required by the

regulation, i.e. before going flying on a supervised line flight, operators can design their initial training/conversion training program as applicable to their specific circumstances.

Aside from the introduction of upset prevention and recovery training (UPRT) for certain aeroplanes, the standards in this division have been designed to reflect existing industry practices. The subjects covered by the training include normal, abnormal and emergency procedures, crew incapacitation, doors and exits, evacuation slides and safety and emergency equipment.

UPRT requirements are proposed for aeroplanes with a maximum certificated seating capacity of 30 or more. The proposed effective date is 31 March 2022, approximately 16 months after the commencement date of 2 December 2021, and is in line with communications from the CASA UPRT project team and industry.

Division 4 - recurrent flight training for flight crew

The requirements for recurrent flight training for flight crew are in regulation 121.570. Recurrent flight training ensures flight crew are role competent operating the type of aeroplane they are assigned to fly. Provision has been made in the standards to implement UPRT for aeroplanes with a maximum certificated seating capacity of 30 seats or more to be incorporated by 31 March 2022 and is in line with communications by the CASA UPRT project team to industry.

Division 5 - Part 121 proficiency check for pilots

The requirements for Part 121 proficiency checks for pilots are in regulation 121.580. Proficiency checks formally assess pilot proficiency against flight crew licensing standards performed in the context of the operator's standard operating procedures. Separate requirements are prescribed for cruise relief co-pilots and flight engineers.

Division 6 - annual emergency and safety equipment training for flight crew

The requirements for annual emergency and safety equipment training for flight crew are in regulation 121.610. Annual safety and emergency equipment training ensures flight crew members are role competent using emergency and safety equipment and the operation of external exits in normal and emergency mode.

Division 7 - three-yearly emergency and safety equipment training and checking requirements for flight crew

The requirements for three-yearly safety and emergency equipment training and checking for flight crew are in regulation 121.620. The three-yearly requirement focuses on specific operational elements that don't require annual training and checking such as operating evacuation slides, life rafts, signalling equipment and fire drills using equipment. There is a focus on the training being practical in nature³ and not just theoretical.

³ Except for evacuation slides.

Chapter 13 – Cabin crew

With a small number of exceptions, the standards for cabin crew training and checking are aligned to existing practices. Firstly, there is a new requirement for cabin crew to extinguish an actual fire during initial training. Many operators within Australia currently conduct this training already and this requirement is aligned with both the FAA and EASA requirements. The second major difference is that it is proposed for flight crew to be required to conduct a fire drill in a smoke-filled (or simulated smoke-filled) environment during initial and 3-yearly training. Lastly, CAO 20.11 currently requires the completion of emergency training requirements every year however in Part 121 these requirements have been split between annual and 3-yearly requirements. This change provides significant alleviations from current standards.

All cabin crew members that have already completed initial training prior to the start of the new regulations on 2 December 2021 will be deemed to have met the initial training requirements. For crew members currently undergoing conversion training, the requirements for conversion training within this MOS should not require the completion of any additional training or checking compared to current practices.

Operators can design their training flow and curricula to meet their requirements, provided the overall requirements of this proposed chapter are satisfied. For example, many operators do not assign cabin crew to an aircraft type during initial training; however, in this MOS some of the stated initial training requirements relate to the aeroplane type to which a cabin crew member is assigned. For clarity, as the regulations don't specifically state that *initial training must be completed as a single block*, an operator can move initial training requirements into their conversion training curriculum provided that checks of the crew member's competency meet the requirements outlined under the relevant initial training section. Therefore, how an operator structures these requirements is at the discretion of the operator.

Similarly, the regulations require the completion of annual and 3-yearly training and checking before going flying on an Australian air transport operation. Many of the annual and 3-yearly requirements may be satisfied by initial training or conversion training sequences where the sequences achieve both outcomes at once.

The kinds of training and checking sequences specified by the subpart 121.P regulations include:

- Senior cabin crew member training and checking - non-recurrent (regulation 121.665 and included in this MOS Chapter 13 Division 2).
- Initial training and check - non-recurrent (regulation 121.710 and included in this MOS Chapter 13 Division 4).
- Conversion training and check prior to supervised line flying - non-recurrent (subregulation 121.715(2) and included in this MOS Chapter 13 Division 5).
- Conversion training that is supervised line flying - non-recurrent (subregulation 121.715(3), not in the MOS).
- Differences training - non-recurrent (regulation 121.730, not in the MOS).
- Annual training and check - recurrent (regulation 121.725 and included in this MOS Chapter 13 Division 6).
- Line check - recurrent (regulation 121.730, not in the MOS).

- 3 yearly training and check - recurrent (regulation 121.735 and included in this MOS Chapter 13 Division 7).

Division 1 - English language proficiency

The requirements for English proficiency are prescribed in regulation 121.655. The operator is obliged to ensure cabin crew meet English language proficiency standards prescribed in the Part 121 MOS.

The standards provide various methods of assessing proficiency including recognised tests such as the International English Language Testing System, the Test of English for International Communication, education or work experience, similar to the standards that are used for flight crew licensing. However, the more advanced flight crew licensing English standard **has not been** utilised.

Division 2 - senior cabin crew members: training and checking

The requirements for senior cabin crew member training and checking are in regulation 121.665. The scope of the training and proficiency checking covers the duties and responsibilities of the role and are additional to the regular training and check requirements for cabin crew. The competencies for the role must be specified in the operator's exposition. The requirements are not intended to be different to those currently utilised by operators instead they clearly outline the requirements that have not previously been well articulated.

Division 3 - training facilities and devices

The requirements for training facilities and devices are in regulation 121.680. The standards provide broad outcomes that must be met by training facilities and training devices. The standards are intended to provide significant flexibility to operators and allow for future technological advancements. All cabin crew training and checking, flight crew annual and 3-yearly training and checking, and other specifically identified flight crew training sequences mentioned in the proposed Chapter 12 of this MOS, need to comply with these outcome-based requirements. The requirements in this division are additive, i.e. for a device used for fire-fighting training, the requirements of both sections 13.08 and 13.09 must be met.

Training devices must be representative and provide an adequate and realistic simulation of the actual environment, the equipment and how the equipment would be operated. Training and proficiency checking effectiveness using simulation is heavily dependent on the suitability of the devices and the avoidance of negative training due to deficient devices.

Division 4 - initial training for cabin crew

The requirements for initial training for cabin crew are in regulation 121.710. The training covers knowledge and practical training activities and assessments relevant to the duties and responsibilities of the role of cabin crew for the operator and, in some cases, relevant to the specific type of aeroplane to which the crew member is assigned. Subject areas include:

- the aviation legislation
- crew member duties and responsibilities
- communication and coordination
- fire and smoke detection and suppression

- general survival and water survival
- first aid and passenger handling
- human factors.

Division 5 - conversion training for cabin crew

The requirements for conversion training for cabin crew are in regulation 121.715. Conversion training, as outlined in the regulation, consists of training required prior to commencing operations in a type of aeroplane for the first time and supervised line flying. The proposed content of this MOS chapter outlines the training required before conducting supervised line flying. Its purpose is to ensure crew members are competent performing their duties in their assigned type, or types, of aeroplane.

The proposed requirements account for cabin crew being assigned to different types of aeroplanes. The standards do not require the crew member to complete the same training for every individual aeroplane type if the differences between types are not significant enough to affect the crew member's achievement of competency. The subjects covered by the training include:

- use of fire fighting and related equipment and drills
- doors and exits
- evacuation slides
- crew incapacitation
- safety and emergency equipment and aircraft systems
- normal and emergency procedures and knowledge of the aeroplane type and its components.

Division 6 - annual training for cabin crew

The requirements for annual training for cabin crew are in regulation 121.725. Annual training is intended to ensure that a cabin crew member is competent in their assigned safety and emergency procedures and the use of safety and emergency equipment. Cabin crew member competency in normal procedures is ensured in Part 121 of CASR through the requirement to complete a line check (see regulation 121.730 and paragraph 121.640(2)(g)). Where a crew member is assigned to multiple aeroplane types, additional annual training is required by the MOS to the extent of the differences between the types.

Current requirements for annual training under CAO 20.11 have been divided between annual and 3-yearly training in Part 121.

Division 7 - three-yearly training and checking for cabin crew

The requirements for three-yearly training and checking for cabin crew are in regulation 121.735. The 3-yearly requirement focuses on specific operational elements that don't require annual training and checking such as the method of opening the flight crew compartment security door in emergency mode (if one is fitted) and practical training in the use of passenger operated evacuation exits not covered during annual training, life rafts and their equipment, signalling equipment and fire drills in a smoke-filled environment.

Chapter 14 – Emergency evacuation

Regulation 121.755 is proposed (in this consultation) to be amended to permit the MOS to specify requirements relating to emergency evacuation procedures and the demonstration of emergency evacuation procedures. This proposed chapter of the MOS has been drafted to reflect the proposed regulation changes.

The requirements in this chapter replace the requirements of clauses 10, 11 and 15 of CAO 20.11 and Appendix II of CAO 20.11. They have been extensively consulted with the TWG and benchmarked against FAA and EASA requirements.

Division 1 - general emergency evacuation procedure requirements

The requirements in this division state the procedures must be appropriate for the circumstances and apply to all Part 121 operations regardless of passenger numbers.

Division 2 - aeroplanes carrying more than 44 passengers

The requirements in this division apply to operators proposing to use, or already using, aeroplanes that can carry more than 44 passengers in an Australian air transport operation. Before commencing Australian air transport operations in the aeroplane, or before continuing to use the aeroplane if the aeroplane triggers certain kinds of conditions, the operator must demonstrate to CASA the effectiveness of cabin crew member training and the emergency evacuation procedures in a partial emergency evacuation demonstration. In some cases, a demonstration of ditching emergency evacuation procedures may be required either separately or combined with the main partial demonstration.

The requirements are not intended to be a divergence from existing practices and the demonstration required is specifically not a full emergency evacuation demonstration as those required as part of an initial aeroplane type certification. If CASA ever required an operator to do a full emergency evacuation demonstration, outside of initial application for type certification, a different legislative mechanism other than the Part 121 MOS would be utilised.

Specific allowances have been built into the rules for operators to not have to conduct demonstrations under a range of circumstances.

Impact on industry

Safety risk analysis

Tranche 2 of the Part 121 MOS and its empowering regulations principally enable the continuation of current practices. Like Tranche 1, with the exceptions specified in the explanations for individual MOS chapters, this tranche is designed to clearly specify long running requirements that are not well articulated or described in the current rules. Where appropriate, the proposed requirements are designed to conform with certain ICAO Annex 6 Part I air transport operations standards and recommended practices.

CASA's assessment is that the performance requirements are a continuation of current practices except for the very small number of operators conducting Part 121 operations in aeroplanes with a MTOW less than 5700 kg. However, it is not anticipated that these requirements will have a significant impact on these operators due to their alignment with long standing international standards and the fact that aeroplanes such as the Twin Otter contain performance data for accelerate stop distance, climb gradient after take-off, en-route climb gradients, missed approach climb gradients and landing distances.

Aside from the new extinguishment of a live fire during initial training, the requirement for fire drills in smoke-filled (or simulated smoke-filled) environments during initial and 3-yearly training, and the UPRT requirements, it is not anticipated that the MOS flight crew training and checking requirements should have an impact on industry due to their alignment with current practices. The UPRT requirements have been extensively workshoped with industry stakeholders for a number of years and are the subject of broad agreement. The requirement to extinguish a live fire once during initial training, and the requirements for fire drills in smoke-filled (or simulated smoke-filled) environments during initial and 3-yearly training, aligns CASA with other contemporary major regulators and recognises the critical nature of on-board fires. The initial training is a foundational element for a crew member's future fire training.

Aside from the new extinguishment of a live fire during initial training and the requirements for fire drills in smoke-filled (or simulated smoke-filled) environments during initial and 3-yearly training, it is not anticipated that the MOS cabin crew training and checking requirements should have an impact on industry due to their alignment with current practices. The requirement to extinguish a live fire once during initial training, and the requirement for fire drills in smoke-filled (or simulated smoke-filled) environments during initial and 3-yearly training, aligns CASA with other contemporary major regulators and recognises the critical nature of on-board fires. The initial training is a foundational element for a crew member's future fire training.

It is not anticipated that the emergency evacuation procedures standards or the requirements related to demonstrations of emergency evacuation procedures will impose any additional costs compared to current practices.

Despite CASA's intent to minimise the burden of regulatory change for industry, it is acknowledged that the regulatory changes planned for December 2021 will have an impact. However, in line with the information contained in the public consultation on transitional policies that opened for comment on 2 June 2020, CASA is committed to minimising that impact as

much as possible through the use of deeming provisions⁴. CASA welcomes any feedback on this consultation where a MOS requirement may necessitate these kinds of temporary alleviations.

Regulation impact statement

The Office of Best Practice Regulation (OBPR) assessed the proposed Part 121 regulation amendment and this assessment is available as part of the Part 121 explanatory statement on the Federal Register of Legislation.

⁴ That a current practice or requirement satisfies a future requirement for a period of time when the future requirement will engender difficulties in compliance even with 12-18 months' notice.

Closing date for comment

CASA will consider all comments received as part of this consultation process and incorporate changes as appropriate. Comments on the proposed regulation changes and tranche 1 of the proposed Part 121 MOS should be submitted through the online response form by close of business 3 August 2020.