



SUMMARY OF PROPOSED CHANGE



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

Part 121 MOS – Tranche 1
Chapters 3, 5, 6, 8 and 10

Date	June 2020
Project number	OS 99/44
File ref	D20/133846

Contents

Reference material	3
Acronyms	3
Definitions	3
References	4
Introduction	5
Who does Part 121 apply to?	5
Does this consultation on the Part 121 MOS apply to a single-engine operator?	6
Consultation plan	6
Previous consultation activities	7
Part 121 interrelationship to Part 119	7
Part 121 interrelationship to Part 91	8
Purpose and scope of this consultation	9
Amendments to specific Part 121 regulations	10
Tranche 1 of the MOS	12
Chapter 1 – Preliminary	12
Chapter 3 – Carriage of documents and emergency and survival equipment information	12
Chapter 5 – Operational flight plans	13
Chapter 6 – Narrow runway width calculations	14
Chapter 8 – Safety briefings and instructions	14
Chapter 10 – Weight and balance	15
Impact on industry	17
Regulation impact statement	18
Closing date for comment	19

Reference material

Acronyms

The acronyms and abbreviations used in this proposal 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 proposal 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 and other legal instruments

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 20.16.1	Air service operations – loading - general
CAO 100.7 Instrument 2015	Nil
FAR	Code of Federal Regulations Title 14 Aeronautics and Space Parts 1 to 199*

* FAR are available at http://www.faa.gov/regulations_polices/faa_regulations/

International Civil Aviation Organization (ICAO) documents

ICAO documents are directly 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

Guidance material

Guidance material are available from the CASA website <https://www.casa.gov.au/publications-and-resources/guidance-materials>

Document	Title
CAAP 215-1(3)	Guide to the preparation of Operations Manuals
CAAP 235-1(1)	Standard passenger and baggage weights
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 summary of proposed change (SPC) issued by the Civil Aviation Safety Authority (CASA) is 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) 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 drafted in outcome-based terms where appropriate.

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)

Who does Part 121 apply to?

Part 121 of CASR applies to all operators conducting Australian air transport operations using larger aeroplanes and 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)
- prospective operators under Parts 119 and 121 of CASR.

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 @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.

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 these 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 CASR and the Part 135 MOS, in addition to subpart 121.Z, applies to these operators.

Consultation plan

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 training and checking
- Chapter 13 – cabin crew training and checking
- Chapter 14 – emergency evacuation demonstrations and procedural requirements.

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 (*this consultation*)
- Tranche 2 – Chapters 9, 11, 12, 13 and 14
- Tranche 3 – Chapters 2, 4 and 7.

There are no restrictions on respondents commenting on earlier tranches within the second and third public consultation activities—the consultation activities are likely to overlap. CASA is discussing in detail the content of each chapter with a Technical Working Group (TWG) appointed by the Aviation Safety Advisory Panel (ASAP) over multiple sessions prior to each consultation activity. However, these activities do not constitute an unreserved endorsement by the TWG of each tranche.

For tranche 1 the advice of the TWG is that it is suitable for public consultation.

Previous consultation activities

The following is a list of Part 121 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

Technical working groups (TWG), with industry members appointed by the Aviation Safety Advisory Panel (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, an indicative, technical (i.e. non-legal) draft of the Part 121 Manual of Standards (MOS, was available as part of the consultation documentation. CASA committed to the industry that it would engage with industry 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.

Part 121 interrelationship to Part 119

Part 119 of CASR outlines the rules for applicants for, and holders of, Air Operators' Certificates (AOCs) that 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 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) 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 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 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.

Part 121 interrelationship to Part 91

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, 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 enable the use of an alternative safety standard.

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 1 of the proposed Part 121 MOS.

In this consultation, only proposed regulation amendments relevant to tranche 1 of the MOS or not relevant to any MOS tranche 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 also issues identified during the detailed TWG discussions that have occurred since the making of the regulations in 2018.

The regulation changes outlined in this consultation propose the deletion of a regulation, changes to another regulation to ensure it can be complied with, a change to remove the requirement for a formal approval and lastly a change to enable to the MOS to contain approvals. The proposed regulation amendments relevant to tranches 2 and 3 of the MOS will be consulted during those specific consultation activities.

Tranche 1 of the proposed Part 121 MOS encompasses five of the 14 chapters. These are:

- Chapter 3 – carriage of documents and emergency and survival equipment information
- Chapter 5 – operational flight plans
- Chapter 6 – narrow runway width calculations
- Chapter 8 – safety briefings and instructions
- Chapter 10 – weight and balance.

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, broadly speaking, the MOS chapters (and the specific Part 121 regulations that empower each chapter) in this public consultation contain modernised versions of some, but not all, of the requirements contained in the following elements of current law:

- Regulation 139 of CAR 1988 (carriage of documents)
- Regulation 233 of CAR (responsibility of pilot in command before flight)
- Regulation 235 of CAR 1988 (take-off and landing of aircraft etc)
- Regulation 235A of CAR 1988 (take-off and landing on narrow runways – certain aeroplanes)
- [CAO 20.11 – Emergency & life saving equipment and passenger control in emergencies](#)
- [CAO 20.16.1 – Loading – General](#)
- [CAO 20.16.3 – Air service operations – Carriage of persons](#)

Amendments to specific Part 121 regulations

- Regulation 121.010
 - A technical amendment is required to enable the MOS to specify that an approval is required in addition to the regulations.
 - The future operations regulations are generally intended to specify any requirements for a person to hold an approval within the regulations. However, there may be isolated occasions where it is necessary to specify a requirement to hold an approval within the MOS.
 - Therefore, to enable appropriate legislative flexibility, it is proposed to amend regulation 121.010 to encompass this possibility.
- Regulation 121.105
 - Feedback from the TWG has identified that the current requirement for a journey log, when the flight begins, to record the time the flight begins (see subparagraph 121.105(1)(d)(ii)) cannot be achieved.
 - It is proposed to amend the regulation to move this requirement, i.e. the recording of when the flight begins in a journey log, to subregulation 121.105(5). This subregulation lists the information that must be recorded in the journey log as soon as practicable after the flight ends.
 - The journey log content requirements are drawn from Article 34 of the Chicago Convention and ICAO Annex 6 Part I recommendations 11.4.1. The requirements in regulation 121.105 for when different information must be recorded have been drawn from ICAO Annex 6 Part I recommendation 11.4.2.
- Regulation 121.440
 - Broadly, the weight and balance regulations require operators and PICS to ensure that before flight, and during flight, the aeroplane does not exceed the weight and balance limits for the aeroplane.
 - This specific regulation requires that operator expositions meet multiple procedural requirements, with crew members and passengers (including their carry-on baggage) having to be weighed in accordance with 1 of 3 methods.
 - The second permitted method is intended to continue enabling the use by operators of standard weights different to those prescribed by CASA, using processes based on the Annex B of CAAP 215 concept of a 'weighing survey plan'.
 - The current mechanism in paragraph 121.440(2)(b) of CASR is that an approval would need to apply for and receive an approval for this alternative standard weight mechanism. The TWG requested guidance from CASA on how existing industry processes of this kind would be transitioned into the approval-based system.
 - o As a result, CASA reviewed both how a transitional mechanism could be made to work and contemporary foreign regulator practices.
 - o Multiple foreign regulators do not issue a specific legal approval for the use of alternative standard weights but instead require operators to base these weights on an 'acceptable survey program'.
 - o The acceptable means of compliance for foreign programs of this kind is usually contained in some form of guidance material.

- Noting this research, CASA is proposing to amend subregulation 121.440(2) of CASR to remove the requirement for an approval to be issued for a different standard weight system and instead require that if an operator does not establish passenger and crew weights (and the weights of their carry-on baggage), by either actual weighing or by the use of the standard weights prescribed in the Part 121 MOS, the operator must:
 - o Work out these weights in accordance with a standard weight for every person on board the aeroplane and their carry-on baggage that is established by the operator and detailed in the operator's exposition.
 - o Establish the respective exposition standard weight in accordance with an acceptable survey programme detailed in the operator's exposition.
 - o If an operator is using an exposition standard weight then they must have exposition procedures to ensure that, if the weight of a passenger or crew member with their carry-on baggage is clearly greater than the applicable standard weight being used, a weight that is more representative of the actual weight of the person and their carry-on baggage is used.
- Guidance material was already being developed for the approval-based paragraph 121.440(2)(b) requirement. If this regulatory change proceeds, this guidance material can be easily modified to reflect the regulatory change.
- The benefit of this regulatory change is that it eliminates the ongoing cost for operators of obtaining this approval every few years and it also eliminates the administrative burden on operators and CASA of issuing and re-issuing these approvals.
- The operator-based survey program would be reviewed as part of CASA's regular surveillance of industry and at the point of initial AOC application. The survey program would need to contain a regular re-evaluation of the data which underpinned the selection of the standard weights in the first place.
- Regulation 121.445
 - It is proposed to delete this regulation.
 - Due to this proposal there is no content within Chapter 10 of the proposed MOS in relation to this regulation.
 - The safety outcome of this regulation is achieved by the requirement within Chapter 10 of the MOS, empowered by regulation 121.455, for the weight and balance documents to contain certain information and for the PIC to record their acceptance that the aeroplane has been loaded according to the weight and balance documents.
- Regulation 121.450
 - As background information, the public consultation of tranche 2 of the MOS will contain a proposal to delete this regulation and the similar regulation in the performance rules (121.425) and replace both of these regulations with an outcome based electronic flight bag regulation in line with contemporary rules overseas.

Tranche 1 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. 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.

Chapter 3 – Carriage of documents and emergency and survival equipment information

Division 1 – flight related documents

The new regulations make provision for electronic documents to be carried in lieu of paper-based document (see regulation 121.075 of CASR). This ability encompasses every document required by Division 1 of Chapter 3 of the MOS.

Carriage of documents requirements are mainly specified in a single list in CAR 139. After the list, further regulations state that some documents do not have to be carried on a domestic only flight. In Part 121, two regulations cover this subject with the same outcome as CAR 139 – refer to regulations 121.085 and 121.095.

The items in the list of documents to be carried are derived from the current regulations and CAOs, ICAO Annex 6 Part I and Article 29 of the Chicago Convention. It should be noted that the proposed MOS does not contain every document that may be required to be carried onboard by other civil aviation safety regulations (for example Part 92 of CASR) or by other Commonwealth laws.

For section 3.01, the origin of each requirement is as follows:

- For aircraft flight manual instructions – CAR 139(1)(e) and an Australianised version of ICAO Annex 6 Part I standard 6.1.4.
- For the flight technical log or maintenance release – CAR 139(1)(c).
- For the minimum equipment list – ICAO Annex 6 Part I standard 6.1.3.
- For the operational flight plan – this is a logical extension of ICAO Annex 6 Part I standard 4.3.3.1 and other ICAO standards related to operational flight plans and the required inclusions on this operational flight plan.
- For the journey log – Article 29 of the Chicago Convention matched to Australian law.
- For the authorised aeronautical information – CAR 233(1)(h).
- For the weight and balance documents – clause 5.4 of CAO 20.16.1.

For section 3.02, the origin of each requirement is as follows:

- For the certificate of registration and certificate of airworthiness – Article 29 of the Chicago Convention.
- For the radio station licence – Article 29 of the Chicago Convention.
- For the passenger list – Article 29 of the Chicago Convention.

- For the manifest and detailed declaration of cargo – Article 29 of the Chicago Convention.
- For the statement on cargo requiring special or unusual handling – this is intended to aid in the identification of cargo that requires prioritised examinations on entry to another country (i.e. live animals or perishable goods – see ICAO Annex 9 standard 4.27).
- For the certified true copy of the Australian air transport AOC – ICAO Annex 6 Part I standard 6.1.2.
- For the copy of the operations specifications – ICAO Annex 6 Part I standard 6.1.2.

For section 3.03, the requirement within regulation 121.100 to keep and update certain documents, which are listed in section 3.03 of the proposed MOS, is a modified version of clause 7 of CAO 20.16.1.

Generally, there are additional documents required to be carried on flights to and from overseas aerodromes. However, they were commonly required by the relevant foreign regulators already and would have been expected to have been provided during a ramp check. For documents carried within Australia, the requirement to carry onboard the bills of lading and detailed manifests have been deleted.

Division 2 – Information about emergency and survival equipment

The regulation requires an operator to have available information about the emergency and survival equipment that is carried on an aircraft. The information needs to be available to give to the rescue coordination centre. That information is ordinarily included in the information submitted with the flight plan for the flight. Therefore, it would be held by the RCC.

Part 121 introduces an ICAO requirement (from ICAO Annex 6 Part I standard 11.5) for the operator to have available, at the time the flight commences, certain information about the emergency and survival equipment on an aeroplane so that it can be given to the rescue coordination centre. This requirement is not in the current regulations.

Chapter 5 – Operational flight plans

Regulation 121.175 requires an operator to prepare an operational flight plan for every flight based on certain factors. Before the flight begins certain information is required to be entered into the operational flight plan and further information is required to be entered before the flight ends or, if this is not practicable, after the flight ends. The regulation allows for an operator to combine the operational flight plan with another document³ provided the combined documents meet the relevant regulatory requirements. Regulation 119.245 of CASR requires operators to keep the operational flight plan for a period of 3 months after the end of the flight.

There is nothing in the regulations which prohibits operators from preparing operational flight plan templates well in advance of a flight or from using an operational flight plan that covers a range of expected operating conditions and meteorological circumstances. However, such a plan must still meet the requirements within regulation 121.175 of CASR.

³ For example, the journey log.

In lieu of recording information on the operational flight plan, the regulation also permits an operator to rely on another source of information. Noting the record keeping requirements of regulation 119.245 of CASR, an operator would need to be able to substantiate that the alternative source of data would continue to be available to them during the Part 119 of CASR record keeping time period.

However, operators are reminded that foreign countries may still require the production of dedicated journey logs or operational flight plans. Part 121 of CASR does not override the requirements of foreign countries and it is the responsibility of the operator to ensure they are familiar and comply with, any foreign country requirements.

Although there are some overlaps, an operational flight plan is not the same as the flight plan submitted to Air Traffic Services and contains substantially different data elements.

ICAO Annex 6 Part I standard 4.3.3.1 requires the completion of an operational flight plan for every flight and multiple other standards within the Annex either rely on the content of the operational flight plan or require certain data to be recorded on the operational flight plan⁴.

The proposed MOS requirements have been significantly simplified from the recommended content of an operational flight plan currently outlined in Appendix B6 to CAAP 215.

In the MOS, the proposed section 5.02 states that the estimated time for passing over a waypoint, which is required to be reported to Air Traffic Services (ATS) by regulation 91.630, must be recorded on the operational flight plan. Regulation 91.630 of CASR specifies that certain broadcasts and reports must be made in accordance with the Part 91 MOS. The Part 91 MOS, in relation to this specific instance, simply states that a pilot must make a position report as per ATS or route reporting requirements.

If it is not practical to do so beforehand, the regulations make it possible for the information to be recorded after the flight ends.

Chapter 6 – Narrow runway width calculations

The standards in the proposed MOS for this topic match those which are currently embedded in regulation 235A of CAR with the addition of a clear requirement that the runway surface must be homogenous across the calculated width. CASA has received several queries since the introduction of the current regulation regarding this matter and has taken this opportunity to ensure the requirement is clearly incorporated.

Chapter 8 – Safety briefings and instructions

Division 1 – Safety briefing cards

The proposed MOS requirements for the minimum content of a safety briefing card is intended to reflect current practice. The requirements are a combination, but not an identical copy, of paragraph 14.1.3 (paragraph 14.1.4 is covered by regulation 121.280 of CASR and the Part 121

⁴ For example, standard 4.3.4.1.1 requires take-off alternate aerodrome to be on the operational flight plan, standard 4.3.4.3.1 does the same for destination alternate aerodromes and standard 7.2.1(a) requires the aeroplane navigation equipment to enable the flight to proceed in accordance with the operational flight plan.

guidance material) of CAO 20.11 and the relevant content of CAAP 253-02 v2.0. Not every item of the CAAP has been identified as being so critical to aviation safety that it must form part of the MOS.

Regulation 121.280 of CASR permits additional information, beyond that specified in the MOS, to be placed on the safety briefing card provided it is relevant to the type and model of aeroplane and the safety of the aeroplane and its passengers.

Division 2 – Safety briefings, instructions and demonstrations

The proposed MOS requirements for safety briefings, instructions and demonstrations is intended to reflect current practice. The proposed MOS requirements are a combination, but not an identical copy, of paragraphs 14.1.1 and 14.1.2 of CAO 20.11 and the relevant content of CAAP 253-02 v2.0. Not every item of the CAAP has been identified as being so critical to aviation safety that it must form part of the MOS.

The wording of the timing requirement for the briefings to be delivered prior to landing is deliberately flexible to accommodate a range of circumstances. The delivery of safety briefings at this stage of flight is essential for the maintenance of an acceptable level of aviation safety noting the prevalence of incidents and accidents in the landing phase of flight and the dynamic nature of this phase of flight.

Beyond that specified in the MOS, regulation 121.285 of CASR permits additional information to be included in safety briefings, instructions and demonstrations provided it is relevant to the type and model of aeroplane and the safety of the aeroplane and its passengers.

Chapter 10 – Weight and balance

The weight and balance regulations within Subpart 121.J of CASR, while similar in many respects to those contained within the air transport rules of Part 133 of CASR for rotorcraft and Part 135 of CASR for smaller aeroplanes, are also more detailed and this reflects the higher safety standard expected of these operations.

Standard weights

Broadly, the weight and balance regulations require operators and pilots-in-command to ensure that before and during the flight, the aeroplane does not exceed the weight and balance limits for the aeroplane. Operators' expositions must meet multiple procedural requirements, with crew members and passengers—including their carry-on baggage—having to be weighed in accordance with 1 of 3 methods.

Only one of these methods is relevant to the content of the Part 121 MOS and that is the use of standard weights prescribed by the MOS.

The standard weights proposed in the MOS are identical to those currently contained within CAAP 235-1(1). Although CASA has discussed with industry modifying these weights in the past, changes are not being proposed at this time. The MOS also specifies certain elements of flexibility to encompass common current industry practices, such as the use of child weights in place of infant weights and the use of adult weights instead of adolescent weights.

Noting societal changes since the contents of the CAAP were first published in 1990, the TWG requested guidance on the standard weights to be applied for persons who do not identify

themselves as male or female. Due to the criticality of weight calculations for aeroplane performance, and pending further advice from other elements of government, CASA has proposed that operators use the adult male weights. CASA will continue to seek further advice on this matter before the commencement of these rules in December 2021.

Weight and balance documents

The requirements for these documents are in alignment with, but not entirely identical to, the requirements of other comparable aviation regulators. The content requirements for these documents are intended to broadly replicate the existing requirements of clause 5 of CAO 20.16.1 and certain content within CAAP 215 Annex B. Certain terms are defined as they are described in CAO 100.7⁵. The reasoning and background to certain documentation elements is provided below:

- The requirement for the name of the person who prepared the documents is drawn from CAAP 215.
- The estimated time of departure is a new item and is in addition to the requirements currently listed in clause 5.3 of CAO 20.16.1. The intent of this requirement is that the weight and balance document should identify a specific flight of a specific aeroplane where a flight identification number does not exist, i.e. if an operator is making multiple flights in a day in the same aeroplane to and from the same aerodromes.
- The requirement to list the maximum zero fuel weight, maximum take-off weight and maximum landing weight is a modernised version of paragraph 5.3(h) of CAO 20.16.1. It reflects the reality that changing environmental conditions often drive a change to the runway being used or the intersection being used which then changes the regulated take-off weight for a particular take-off. The documentary requirement has been modified to only require the structural maximums to be specified on the weight and balance documents and the operator performance requirements to be relied upon to ensure circumstantial maximum take-off and landing weights are adhered to.
- The requirement for the documents to accurately encompass last-minute changes is in line with contemporary practice but is additional to the requirements in clause 5.3 of CAO 20.16.1.
- The requirement for a pilot to certify acceptance of the weight and balance documents is also in line with contemporary practice and reflects the CAAP requirement for 'procedures to ensure acceptance by the PIC' but is additional to clause 5.3 of CAO 20.16.1.
- Where a pilot is not responsible for the planning of the load, the person responsible for planning the load is required to certify that the load has been loaded in accordance with the weight and balance documents. This is in line with contemporary practice and provides the necessary safety assurance to the pilot in command of the state of the aeroplane.
 - The specific wording of this proposed requirement is intended to enable the continuance of current industry loading practices which range from loading assistance to the pilot to sophisticated loading teams reporting back to a load planner who is situated in another physical location.

⁵ This CAO is one of the few CAOs not currently planned to be repealed on the commencement of the new regulations.

Impact on industry

Tranche 1 of the Part 121 MOS and its empowering regulations is generally intended to enable the continuation of current practices. With few exceptions, this tranche is designed to clearly specify long running requirements that are not well articulated or described in the current rules and to ensure they conform appropriately with certain ICAO air transport operations standards and recommended practices.

CASA's assessment is that the carriage of document requirements should have minimal impact on current operators due to the regulations explicitly allowing the domestic carriage of electronic copies of many documents (noting that operators remain subject to foreign requirements if they operate into a foreign jurisdiction) and the ability within some regulations to include the necessary information into another kind of document. Similarly, the new requirement for operators to have certain emergency and survival information available for transmission to a rescue coordination centre mirrors, in the majority of situations, existing practices.

While the specific statement of requirements for the content of operational flight plans is new, CASA has designed the list of contents to reflect advice received from the TWG regarding current industry practices and this is not assessed as having a significant impact.

CASA anticipates no impacts on industry related to the narrow runway width calculation chapter due to the direct carry-over of these requirements from regulation 235A of CAR.

As a result of feedback from the TWG, CASA made multiple changes to the requirements for safety briefing cards and safety briefings. It should be noted that these requirements are intended to set a minimum standard and there are likely to be multiple operators who currently exceed this standard. This is entirely appropriate and expected as operators adjust their practices and procedures to reflect lessons learnt from events and incidents. CASA's assessment is that these MOS requirements should have little impact on industry.

Similarly, due to feedback received from the TWG, a number of changes to the originally drafted weight and balance requirements have been made. The proposed changes to regulation 121.440 of CASR to remove the requirement for operators to obtain an approval for an alternative standard weight system is a result of industry feedback, similarly the specifications permitting the use of MOS adult standard weights by adolescents and child weights by infants. The weight and balance documents requirements were also altered to enable the continuation of current electronic loading systems in common industry use.

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, if for no other reason than the necessity to update operator manual suites to reference the new regulations. 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 provisions⁶. CASA welcomes any feedback on this consultation where a MOS requirement may necessitate these kinds of temporary alleviations.

⁶ 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.

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.

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 16 July 2020.