Tranche 3 - Proposed new Part 121 MOS – Australian Air Transport Operations - Larger Aeroplanes – (CD 2012OS)

# Overview

Part 121 of the *Civil Aviation Safety Regulations 1998 (CASR) – Australian air transport operations – larger aeroplanes,* and its Manual of Standards (MOS) will contain the additional safety rules for air transport operations in larger aeroplanes.

The rules in this consultation will apply to multi-engine aeroplane air transport operations (including passenger, cargo and medical transport operations) with a maximum operational passenger seating capacity of more than nine seats or a maximum take-off weight of more than 8,618 kgs. The proposed rules in this consultation do not affect the single-engine aeroplanes operated under Subpart 121.Z.

The standards in the Part 121 MOS are derived mainly from existing standards which are in the *Civil Aviation Regulations 1988* (CAR), Civil Aviation Orders (CAO) and various instruments. Where appropriate for Australian operations, these standards have been aligned to international best practice and the standards and recommended practices published by the International Civil Aviation Organization (ICAO).

Consultation on the Part 121 MOS is being conducted in three tranches. This is the third tranche and covers the following chapters and topics:

* Chapter 2 – extended diversion time operations
* Chapter 4 – alternate aerodromes
* Chapter 7 – fuel requirements
* Chapter 11 – equipment.

This public consultation seeks feedback on tranche 3 of the proposed Part 121 MOS.

Respondents have the opportunity to provide feedback on tranches 1 and 2 if they haven’t already.

### Key changes at a glance

There are a number of differences between current requirements and those requirements contained in this draft of the Part 121 MOS. The majority of these requirements have been deliberately designed to be compatible with existing operator practices. The changes would:

* for weather conditions at Extended Diversion Time Operation (EDTO) alternates, operators will be required to consider weather probabilities below PROB 40
* introduce an entirely new alternate aerodromes policy
* introduce more outcome-based radiocommunication and navigation equipment standards
* update existing GPWS requirements to TAWS – subject to a delay period
* extend weather radar fitment to unpressurised turbine-engine aeroplanes and piston-engine aeroplanes
* introduce data link communications recording requirements – subject to a delay period
* introduce underwater locator device requirements – subject to a delay period
* update the supplemental oxygen, protective breathing equipment and first aid oxygen requirements – subject to a delay period for the first aid oxygen requirements
* update the ELT requirements – subject to a delay period
* introduce specific requirements for first aid kits, emergency medical kits and a universal precaution kit – subject to a delay period for the first aid kit requirements.

### Consultation on the rest of the Part 121 MOS

This will be the final public consultation on the chapters of the MOS. If you would like to provide additional comments on the previous two tranches, this consultation has set aside two pages specifically for this purpose.

Subject to further discussions with the [Aviation Safety Advisory Panel’s](https://www.casa.gov.au/about-us/working-industry/aviation-safety-advisory-panel/part-121-twg-australian-air-transport-operations-large-aeroplane-operations) Part 121 Technical Working Group (TWG) and the progress of legal drafting, CASA is aiming is to make the Part 121 MOS into law in early December 2020. This will provide time to analyse feedback, discuss changes with the TWG and undertake the administrative processes associated with making the MOS into law.

**How Part 121 works in conjunction with Part 91 general operating and flight rules**

Regulation 91.035 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 because either the Part 121 rules have specified a higher safety standard or the requirement to hold an AOC has put in place system-based safety defences that achieve the safety standards by alternative means.

**How Part 121 works in conjunction with Part 119 (air transport certification requirements)**

Part 119 outlines the rules for applicants and holders of Air Operator’s Certificates (AOCs). Part 121 operations are not authorised to be conducted unless the operator meets the requirements in Part 119 for the issue of an Australian air transport AOC. Generally Part 119 of CASR will specify the organisational requirements and the specific air transport operational Part (i.e. Part 121 in this case) will state the operational standard. Both CASR Parts must be read in conjunction, to gain a full understanding of a topic. One example of this kind 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 the flight crew and cabin crew members.

**Overlap with Part 135 - Australian air transport operations – smaller aeroplanes**

Subpart 121.Z specifies that certain single-engine aeroplanes used in air transport operations must comply with Part 135 of CASR and a small number of additional requirements. Outside of the regulations contained in subpart 121.Z, none of the other regulations within Part 121 or any of the Part 121 MOS content, applies to the operation of these aeroplanes during an air transport operation.

**Previous consultations**

CASA publicly consulted the Part 121 regulations in 2015. An indicative only version of the Part 121 MOS accompanied that consultation. Multiple industry working group sessions provided feedback on the Part 121 regulations prior to that consultation but were not asked to provide detailed feedback on the indicative MOS. CASA conducted a similar public consultation of the regulations in 2018 due to significant changes to match the new Part 91 and the indicative MOS was provided as part of that consultation. On isolated occasions in early and late 2019, CASA engaged with the TWG on specific MOS topics that are not part of this tranche. In the second and third quarters of 2020, CASA and the TWG have frequently discussed the specific drafts of the Part 121 MOS chapters. A large number of individual alterations were made to the draft MOS as a result of these consultations.

# Why we are consulting

This consultation seeks feedback on the proposed Part 121 MOS. The survey has been designed to give you the option to provide feedback on the survey in its entirety or to provide feedback on the policy topics applicable to you.

We are consulting to ensure that the proposed new standards in the Part 121 MOS are clearly articulated and will work in practice. Your feedback will make a valuable contribution to our standards development and making process and help to inform any future regulatory change.  Comments on the CD 2012OS should be submitted through the online response form.

**Documents for review and reference**

All documents related to this consultation are attached in the ‘related’ section at the bottom of the page. They are:

* Summary of proposed change on CD 2012OS, which provides background on the proposed standards
* Exposure Draft Part 121 MOS – new chapters 2, 4, 7 and 11 (for completeness the draft also includes the tranche 1 and 2 chapters)
* Civil Aviation Safety Amendment (Part 121) Regulations 2018 (F2018L01784)
* Civil Aviation Safety Amendment (Operations Definitions) Regulations 2019 (F2019L00557)
* Civil Aviation Safety Amendment (Part 91) Regulations 2018 (F2018L01783)
* Civil Aviation Legislation Amendment (Flight operations – miscellaneous amendments) Regulations 2020 (F2020L01283)
* Unofficial consolidated CASR Dictionary – (combines the official CASR Dictionary and the official amendment regulation incorporating the operations definitions)
* MS Word copy of this consultation for ease of distribution and feedback within your organisation.

Note: The Word document is not to be used as an emailed submission, unless there are extenuating circumstances and this form of submission has been agreed to by the consultation project lead.

Please read the Summary of proposed change (CD 2012OS) consultation document before providing your feedback in the online survey.

CASA highly recommends the use of the ‘unofficial consolidated CASR dictionary’. Some minor differences exist between this document and the ‘Operations Definitions’ regulation however these are isolated to the sport and recreation sectors and do not affect any of the content of this proposed MOS.

# What happens next

At the end of the response period for public comment, we will review each comment and submission received. All comments will be considered. We will make all submissions publicly available on the CASA website, unless you request your submission remain confidential. Relevant feedback that improves upon the proposed standards and is consistent with the regulations and other CASA policy, will be incorporated into the final MOS.

At the conclusion of this tranche of Part 121 MOS consultation, we will publish a Summary of Consultation which summarises the feedback received across all three tranches, outlines any intended changes and details the next steps for the MOS and the proposed regulation changes. The Part 121 MOS will come into effect on 2 December 2021 when the Part 121 regulations also start.

To be notified of any future consultations, you can subscribe to our [**consultation and rulemaking mailing list**](https://mailinglist.casa.gov.au/lists/?p=subscribe&id=3).

Give Us Your Views

[Online Survey](https://consultation.casa.gov.au/regulatory-program/pp1816us/consultation/)

**Related**

List of documents attached to the consultation

* Summary of proposed change on CD 2010OS, which provides background on the proposed standards
* Exposure Draft Part 121 MOS – new chapters 2, 4, 7 and 11
* Unofficial consolidated CASR Dictionary – (combines the official CASR Dictionary and the official amendment regulation incorporating the operations definitions
* MS Word copy of this consultation for ease of distribution and feedback within your organisation.

Links:

1. [Civil Aviation Safety Amendment (Part 121) Regulations 2018 (F2018L01784)](https://www.legislation.gov.au/Details/F2018L01784)
2. [Civil Aviation Safety Amendment (Operations Definitions) Regulations 2019 (F2019L00557)](https://www.legislation.gov.au/Details/F2019L00557)
3. [Civil Aviation Safety Amendment (Part 91) Regulations 2018 (F2018L01783)](https://www.legislation.gov.au/Details/F2018L01783)
4. [Civil Aviation Safety Amendment (Part 119) Regulations 2018 (F2018L01787)](https://www.legislation.gov.au/Details/F2018L01787)
5. [Civil Aviation Legislation Amendment (Flight operations – miscellaneous amendments) Regulations 2020 (F2020L01283)](https://www.legislation.gov.au/Details/F2020L01283)

## Audiences

* Air operators
* Pilots
* Operations Control/Flight Dispatch
* Aircraft owner/operator
* Traveling public / passengers
* Aerodrome operators
* CASA Staff

## Interests

* Air travel
* Human factors
* Safety management systems
* Operational standards
* Cabin safety
* Airworthiness/maintenance (CAR 30 and CASR Part 145 maintenance orgs)
* Training and checking systems

Page: Consultation Contents

### Proposed policy – Part 121 Manual of Standards tranche 3

This consultation is seeking feedback on the proposed chapters of the Part 121 Manual of Standards (MOS) contained in the final (of 3) tranches.

**Fact Bank:** The Part 121 MOS is planned to comprise 14 chapters as follows:

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| Fact bank Content* 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
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**MOS elements in this consultation**

The MOS elements of this consultation cover the third tranche of the following 3 tranches:

* Tranche 1 – chapters 3, 5, 6, 8 and 10
* Tranche 2 – chapters 9, 12, 13 and 14
* Tranche 3 – chapters 2, 4, 7 and 11 (this consultation).

This consultation is comprised of 9 pages. The first two pages contain questions that are administrative in nature, enabling us to protect your privacy and ensure we have obtained feedback from all stakeholders. The seven pages that follow request feedback on the proposed chapters of the Part 121 MOS and of the possible regulation changes. These seven pages are as identified below.

The survey has been designed to give you the option to provide feedback on the survey in its entirety or to provide feedback on the policy topics applicable to you.

When you have completed the sections on which you wish to provide feedback on each page, select next and the consultation will move you to the next page.

Our [website](https://www.casa.gov.au/rules-and-regulations/changing-rules/consultation-and-project-history/consultation-industry-and-public) contains more information on making a submission and what we do with your feedback.

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| --- | --- |
| Page | Content |
| 1 | Personal Information (required) |
| 2 | Consent to publish your submission (required) |
| 3 | Chapter 2 – Extended diversion time operations |
| 4 | Chapter 4 – Alternate aerodromes |
| 5 | Chapter 7 – Fuel requirements |
| 6 | Chapter 11 – Equipment |
| 7 | Further feedback on tranche 1 chapters |
| 8 | Further feedback on tranche 2 chapters |
| 9 | Your Priorities  |

Page 1: Personal information

## First name

(Required)

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## Last name

(Required)

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## Email address

If you enter your email address you will automatically receive an acknowledgement email when you submit your response.

## Email

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## Do your views officially represent those of an organisation?

(Required)

*Please select only one item*

[ ]  Yes, I am authorised to submit feedback on behalf of an organisation

[ ]  No, these are my personal views.

## If yes, please specify the name of your organisation.

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Which of the following best describes the group you represent?

*Please select only one item*

[ ]  Aircraft operator

[ ]  Aircraft owner[ ]  Chief pilot / Head of flight operations

[ ]  Head of training and checking

[ ]  Quality or Safety manager

[ ]  Flight crew

[ ]  Cabin crew

[ ]  Ground crew

[ ]  Passenger

[ ]  Cargo shipper

[ ]  Medical transport personnel

[ ]  Other

Please specify “Other” if selected.

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## Have you submitted a response to the tranche 1 and tranche 2 consultation activities?

(Optional)

Tranche 1

*Please select only one item*

[ ]  Yes - I have already submitted a response to the tranche 1 consultation.

[ ]  No - I have not yet submitted a response to the tranche 1 consultation.

[ ]  No – I will be submitting a response to the tranche 1 chapters as part of this consultation.

[ ]  No - I will not be submitting a response to the tranche 1 consultation.

Tranche 2

*Please select only one item*

[ ]  Yes - I have already submitted a response to the tranche 2 consultation.

[ ]  No - I have not yet submitted a response to the tranche 2 consultation.

[ ]  No – I will be submitting a response to the tranche 2 chapters as part of this consultation.

[ ]  No - I will not be submitting a response to the tranche 2 consultation.

Page 2: Consent to publish submission

In order to provide transparency and promote debate, we intend to publish all responses to this consultation. This may include both detailed responses/submissions in full and aggregated data drawn from the responses received.

Where you consent to publication, we will include:

* **your last name**, if the submission is made by you as an individual
* **the name of the organisation** on whose behalf the submission has been made
* **your responses** and comments

We **will not** include any other personal or demographic information in a published response.

Information about how we consult and how to make a confidential submission is available on the [**CASA website**](https://www.casa.gov.au/rules-and-regulations/changing-rules/consultation-and-project-history/consultation-industry-and-public)[*<https://www.casa.gov.au/rules-and-regulations/landing-*](http://www.casa.gov.au/rules-and-regulations/landing-) *page/consultation-process>* .

## Do you give permission for your response to be published?

(Required)

*Please select only one item*

[ ]  Yes - I give permission for my response/submission to be published.

[ ]  No - I would like my response/submission to remain confidential but understand that de-identified aggregate data may be published.

[ ]  I am a CASA officer.

Page 3: Chapter 2 – Extended diversion time operations

Chapter 2 of the Part 121 MOS prescribes requirements related to gaining an approval to conduct Part 121 extended diversion time operations (EDTO) and specific requirements for the conduct of an ETDO. Regulations 121.030 and 121.035 prescribe in combination which operations would constitute EDTO and therefore would be subject to this chapter.

### Policy proposal

The requirements in Chapter 2 carry across the requirements currently in CAO 82.0 with the following changes:

* Terminology is updated to match the ICAO EDTO Manual.
* Provisions for operations with diversion times in excess of 240 minutes are included.
* Weather conditions at EDTO alternates are required to consider weather probabilities below PROB 40 except in relation to cloud ceiling for PROB 30 (the policy that PROB 30 for visibility, wind and other weather elements could be disregarded originated from the application of a note to the Extended range operations by turbine-engined aeroplanes (ETOPS) alternate minima within the Federal Aviation Administration of the USA (FAA) Advisory Circular (AC) 120-42B (which itself preceded the ICAO EDTO Manual as the international reference for ETOPS/EDTO)).
* Continuing airworthiness requirements will not be included and will instead be contained in an airworthiness related legislative instrument. This instrument will be publicly consulted in the first half of 2021. No additional continuing airworthiness requirements are intended to be placed on operators when moving existing requirements from CAO 82.0 to the future legislative instrument.

### Policy aim

The aim is to migrate the application requirements and considerations for an EDTO approval and the operational requirements related to EDTO that are currently contained in CAO 82.0, without requiring existing operators to make significant changes. In line with the flight operations regulations transition policy consulted in the middle of 2020, current EDTO approvals that extend beyond the commencement date of 2 December 2021 will not be required to immediately apply for new EDTO approvals. Existing approvals will continue to be valid, and any conditions within those approvals will continue to be required to be complied with, for a period of time beyond the commencement date. Refer to the earlier transition policy consultation for details of the relevant time periods.

### Question – Do the proposed requirements achieve the aim?

Please provide any comments you may have on the principal changes proposed.

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Page 4: Chapter 4 – Alternate aerodromes

Chapter 4 of the Part 121 MOS prescribes requirements empowered by regulation 121.170 in relation to alternate aerodromes. In accordance with regulation 91.035, the alternate aerodrome requirements of the Part 121 MOS entirely replace the flight preparation (alternate aerodrome) requirements of the Part 91 MOS during a Part 121 operation.

### Policy proposal

The proposed alternate aerodrome requirements within this Chapter are substantially different to the current alternate aerodrome requirements.

The new requirements are intended to put in place requirements that have greater similarity to the ICAO Annex 6 Part I standards. However, in response to extensive engagement by the Part 121 TWG, the standards have been extensively modified. A short summary of the key differences follows.

Operators are strongly advised to read the entirety of Chapter 4 to evaluate the effects on their operations.

Key new requirements are related to the following:

* The introduction of the isolated destination aerodrome concept and associated fuel, flight planning and in-flight requirements.
* The introduction of a minimum 15 minutes of extra fuel when planning to destination aerodromes when the flight is not required to hold a destination alternate aerodrome.
* The introduction of a requirement to plan and identify two destination alternate aerodromes, but only carry the fuel for the one requiring the greatest destination alternate fuel, when the weather at the destination aerodrome is forecast to be below landing minima or no weather forecast for the destination aerodrome exists.
* The introduction of different buffers for weather at the destination aerodrome which would trigger the requirement for a destination alternate aerodrome versus weather at an aerodrome that permits the aerodrome to be a destination alternate aerodrome.
* The introduction of an ability to request an approval from CASA to obtain an *operational variation* from the standards of this Chapter, providing that the operational variation ensures an equivalent level of safety. Note that despite the use of the same term ‘operational variation’ in this Chapter and in Chapter 7 (fuel), formal approval is required for alternate aerodrome operational variations whereas a formal approval is not required for fuel operational variations.

Key differences from the ICAO, FAA and EASA standards are:

* The values for the cloud ceiling and visibility that trigger the necessity to plan a destination alternate aerodrome prior to a flight, or during a flight if amended weather is received, are slightly reduced compared to ICAO / FAA / EASA standards.
	+ The proposed criteria are based on a 1000ft buffer above the planned instrument approach at the destination aerodrome compared to the overseas standard of 2000ft AGL.
	+ This alleviation is intended to recognise the economic realities imposed by the relative lack of alternate aerodromes in Australia for Part 121 operations compared to the United States and Europe.
* The requirement within overseas standards to always plan for a destination alternate aerodrome if the destination aerodrome does not have two separate runways capable of being used has not been applied to aerodromes within Australian territory however this requirement does apply to aerodromes outside Australian territory.
	+ This alleviation is intended to recognise the significantly lower number of aerodromes within Australia used in Part 121 operations that have separate runway aerodrome infrastructure.

### Policy aim

Appropriately and reasonably modernise alternate aerodrome related requirements for Part 121 operations to increase alignment with global standards but ensure appropriate modifications that account for the specific Australian aerodrome and instrument approach environment.

### Question – Do the proposed requirements achieve the aim?

Please provide any comments you may have on the proposed policy.

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Page 5: Chapter 7 – Fuel requirements

Chapter 7 of the Part 121 MOS prescribes requirements empowered by regulation 121.235 in relation to fuel requirements. In accordance with regulation 91.035, the fuel requirements of the Part 121 MOS entirely replace the fuel requirements of the Part 91 MOS during a Part 121 operation.

### Policy proposal

CASA Instrument 29/18 (Fuel Requirements), in effect from November 2018 with delayed compliance into early 2019 for some operators, introduced a number of changes to previous fuel policy requirements. CAO 82.0 included some fuel related requirements for EDTO. This chapter only introduces modifications to these existing requirements where necessary to support the new alternate aerodrome requirements or improve the operational variation process.

The changes within this chapter compared to the existing requirements are:

* the defined elements of the fuel required to be carried now match the ICAO terminology which has already been consulted in other MOS’s (91, 133, 135) [i.e. final reserve fuel replaces fixed reserve, contingency fuel replaces variable fuel reserve, destination alternate fuel replaces alternate fuel].
* the amount of destination alternate fuel is aligned with ICAO Annex 6 Part 1 standards 4.3.6.3(d)(3) and 4.3.6.3(d)(4) as follows:
	+ an additional 15 minutes of fuel is required in addition to final reserve fuel in circumstances where no destination alternate aerodrome is required
	+ the fuel required for circumstances where the destination aerodrome is an isolated destination aerodrome has been included and related to piston-engine and turbine-engine aeroplanes as appropriate.
* an operator intending to use an operational variation must submit the supporting evidence to CASA at least 28 days prior to commencing the use of the operational variation. Note that despite the use of the same term ‘operational variation’, in this Chapter and in Chapter 4 (alternate aerodromes), formal approval is required for alternate aerodrome operational variations whereas a formal approval is not required for fuel operational variations.
	+ The 28-day period does not imply that an operator, once the 28-day period has elapsed, cannot commence using the operational variation unless advice is received from CASA confirming the suitability of the supporting evidence or operational procedures. The period is intended to provide CASA with a period of time to assess the operational variation and its supporting evidence and, in the event CASA has grounds to issue a direction to the operator not to implement the operational variation, time to issue such a direction.

### Policy aim

Appropriately continue existing fuel requirements whilst incorporating ICAO terminology and the new alternate aerodrome concepts and ensuring, in relation to operational variations, that CASA has a reasonable opportunity to review an operator’s operational variation and its supporting evidence prior to the operator commencing the use of the operational variation.

### Question – Do the proposed requirements achieve the aim?

Please provide any comments you may have on the proposed policy.

*(Please note, this should not include points you have already raised)*

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Page 6: Chapter 11 – Equipment

Chapter 11 of the Part 121 MOS prescribes requirements empowered by regulation 121.460 in relation to equipment. In accordance with regulation 91.035, the equipment requirements of the Part 121 MOS entirely replace the equipment requirements of the Part 91 MOS during a Part 121 operation.

### Policy proposal

Migrate existing equipment requirements from multiple sources including CAOs 20.11, 20.18, 20.91, Division 5 of Part 14 of CAR (in relation to ACAS) and Division 4 of Part 13 of CAR (in relation to aircraft external lights) and incorporate specific new or modified equipment requirements to increase Australia's alignment with international standards.

Where the new requirements would impose an unreasonable burden of compliance by the commencement date of 2 December 2021, there would be a 2-year delay period subject to conditions. The primary condition is that where there was a requirement in relation to the same, or largely similar, kind of equipment, an operator can either comply with the requirements in relation to that kind of equipment and the specific kind of operation (i.e. charter or RPT) that existed prior to Part 121, or they can comply with the new requirement in Part 121. From 2 December 2023, operators will need to comply with the new requirement.

Significant new or modified equipment requirements are listed below, but CASA recommends a thorough review of the proposed Chapter to review all requirements.

**Fact Bank: Radiocommunications systems**

* The requirements have been modified to be more outcome-based and technology neutral.
* An aeroplane conducting a Part 121 operation must have 2 independent radiocommunication systems each capable, under normal operating conditions, of communicating with an appropriate ground station from any point along the route, including in the event of diversions,
	+ at least one of these systems must have two-way voice communication capability
	+ both systems must be capable to receiving meteorological information at any time during the flight.
* However, this does not mean that any technology adopted by an operator can be used without the agreement of the relevant air traffic services provider. For example, if an operator intended to use SATCOM VOICE within Australia to communicate with Airservices Australia, the operator would still need to obtain the agreement of Airservices to such an arrangement as not all radiocommunications technologies are fully integrated within air traffic service systems.
* CASA anticipates that aeroplanes complying with existing radiocommunications equipment requirements will comply with these future requirements and therefore has not applied a delay period to these requirements.

**Fact Bank: Navigation equipment**

* An aeroplane conducting a Part 121 operation must be fitted with a minimum of either two approved GNSS or one approved GNSS and either one ADF or one VOR.
* The total navigation equipment fitted must be such that if one piece of navigation equipment fails during the flight, sufficient navigation equipment remains to enable the aeroplane to navigate in accordance with the operational flight plan and the requirements of relevant air traffic services and the airspace in which the aeroplane is planned to be flown.
	+ For example, if the alternate aerodrome requirements used in planning the flight were based on the use of an ILS at the destination alternate aerodrome or the destination aerodrome, at least two ILS units would have to be fitted to comply with this requirement that the failure of a single unit would not invalidate the planning for the flight (i.e. it would invalidate the operational flight plan).
	+ Another example would be if the destination alternate aerodrome was planned on the use of a VOR approach but an ILS approach was also available, then the fitment of one ILS and one VOR would satisfy the requirement that no single failure would invalidate the planning of the flight (i.e. it would invalidate the operational flight plan).
* For any aerodrome at which it is planned or intended that an aeroplane may land in IMC, the equipment must be capable of providing guidance to a point from which a safe visual or instrument landing may be conducted.
* CASA anticipates that aeroplanes complying with existing navigation equipment requirements will comply with these future requirements and therefore has not applied a delay period to these requirements.

**Fact Bank: Internal doors and curtains**

* CASA anticipates that aeroplanes are generally already fitted to comply with these requirements and has therefore not provided a delay period.

**Fact Bank: Terrain awareness and warning system (TAWS)**

* This requirement is not mandatory until 2 December 2023. Prior to that date (after commencement of Part 121 on 2 December 2021), operators that were captured by the GPWS requirements of CAO 20.18 must comply with either these new requirements or the old CAO requirements. Operators not captured by the old CAO requirements do not have to comply with the new requirements until 2 December 2023.
* The new requirements are that a turbine-engine aeroplane must be fitted with a TAWS Class A and a piston-engine aeroplane must be fitted with either a TAWS Class A or TAWS Class B.
* These new requirements are consistent with the requirements consulted as part of the Part 121 regulations in 2018 and have been subsequently moved to the Part 121 MOS.

**Fact Bank: Airborne weather radar equipment**

* This equipment is required for all aeroplanes conducting Part 121 operations. Under current rules, piston-engine aeroplanes and unpressurised turbine-engine aeroplanes do not have to fit this equipment.
* It is not currently proposed to have a delay period for this requirement.

**Fact Bank: CVR and FDR**

* Changes to the existing equipment requirements are limited to the explicit ability for combination recorders to be fitted (although one combination recorder cannot satisfy both the CVR and the FDR requirement) and for the use of equipment that complies with more modern TSOs than those specified in CAO 103.19 and 103.20.
* These two CAOs are not planned to be repealed on the commencement of the flight operations regulations. If they were to be repealed, then a further consultation on the inclusion of the relevant requirements within both this MOS and other flight operations regulations MOS's would be conducted by CASA.

**Fact Bank: Data link recorder**

* This is a new requirement and therefore only applies from 2 December 2023 onwards. Data link recorders are proposed to be required in line with Annex 6 Part I standard 6.3.3.
* This requirement applies to aeroplanes:
	+ that were first issued with a CofA on or after 1 January 2016, or modified on or after 1 January 2016 to install and utilise data link communications equipment; and
	+ that are required under this MOS to be fitted with a CVR; and
	+ that have the capability to operate data link communications.
* The requirement is that certain kinds of data link messages must be recorded and that the recording must be on a flight recorder capable of preserving the recordings in the event of any accident to the aeroplane.

**Fact Bank: Crew interphone system**

* This requirement has been designed to provide greater clarity on existing requirements and be met by existing equipment fitments. As a result, no delay period has been incorporated.

**Fact Bank: Public address system**

* This requirement has been designed to provide greater clarity on existing requirements and be met by existing equipment fitments. As a result, no delay period has been incorporated.

**Fact Bank: Oxygen requirements**

* These requirements have been modernised and include the supplemental oxygen carriage and usage requirements, oxygen mask requirements for crew and passengers, protective breathing equipment and portable protective breathing equipment requirements and first aid oxygen requirements.
* Only the first aid oxygen requirements are currently subject to a delay period due to the similarity of other requirements to existing rules.

**Fact Bank: Emergency locator transmitter requirements**

* The proposed ELT standards have been changed from existing requirements in CAR 252A and clause 6 of CAO 20.11.
* The proposed requirements are in line with the Annex 6 Part I standard 6.17 that was in force before the addition of standard 6.18 related to locating aircraft in distress (the Global Aeronautical Distress & Safety System (GADSS) changes). The changes are consistent with the indicative content first published with the 2015 consultation of the Part 121 regulations.
	+ As per the advice on CASA's website for [Project OS 20/01](https://www.casa.gov.au/rules-and-regulations/changing-rules/rule-development-projects/project-os-2001-global-aeronautical-distress-and-safety-system-gadss), CASA intends to discuss the GADSS standards with industry not before early 2021 however noting the change in commencement date for the new regulations from March to December 2021, this timeline is likely to be delayed.
* The new requirements do not have to be complied with until 2 December 2023 provided that the ELT requirements contained within CAR 252A and CAO 20.11 as in force immediately before 2 December 2021 (the commencement of Part 121) are complied with in relation to the flight.
	+ For example, if a flight is conducted in June 2022 that would have been classed as an RPT flight before 2 December 2021, that flight can either comply with the old CAR / CAO ELT requirements as they applied to an RPT flight of that aeroplane or the new ELT requirements.
	+ For example, if a flight is conducted in June 2022 that would have been classed as a charter flight before 2 December 2021, that flight can either comply with the old CAR / CAO ELT requirements as they applied to a charter flight of that aeroplane or the new ELT requirements.

**Fact Bank: Underwater locator device requirements**

* This is a new requirement and therefore only applies from 2 December 2023 onwards. This equipment is proposed to be required in line with Annex 6 Part I standard 6.5.3.1(c).
* This requirement only applies to aircraft with a MTOW > 27000kg and those required to carry a life raft for the specific flight.

**Fact Bank: Portable emergency equipment requirements**

Portable emergency equipment proposed as part of public consultations in 2015 and 2018 of the Part 121 regulations have been moved entirely into the Part 121 MOS. Only the proposed first aid kit requirements are currently subject to a delay period until 2 December 2023.The portable emergency equipment requirements encompass the following kinds of equipment:

* Hand-held fire extinguishers
* First aid kits:
	+ The proposed requirements are in line with the EASA requirements contained within CAT.IDE.A.220.
	+ The EASA requirement is more specific than the ICAO Annex 6 Part I recommendation (1) located beneath standard 6.2.2(a).
	+ The key difference is that the ICAO recommendation is simply one or more first-aid kits for the use of cabin crew in managing incidents of ill health whereas the EASA requirements provide greater detail related to the passenger capacity of the aeroplane.
	+ Noting the distances from suitable landing locations for many Australian routes, CASA has proposed the more specific EASA requirements.
* Emergency medical kit:
	+ The proposed requirements are in line with the EASA requirements contained within CAT.IDE.A.225.
	+ The EASA requirement is more stringent than the ICAO Annex 6 Part I recommendation (3) located beneath standard 6.2.2(a).
	+ The key differences are that EASA requires fitment to aeroplanes with a MOPSC > 30 when the aeroplane is flown more than 60 minutes from an aerodrome at which qualified medical assistance is available whereas the ICAO recommendation is for aeroplanes with a MOPSC > 100 on all flights with a sector length of more than two hours.
	+ The application of the two standards are different in character. Noting the sparse nature of rural and remote health infrastructure within Australia, CASA has proposed the more stringent EASA requirement.
* Universal precaution kit:
	+ The proposed requirements are in line with the ICAO Annex 6 Part I recommendation (2) located beneath standard 6.2.2(a).
	+ The ICAO recommendation only applies to aeroplanes requiring cabin crew however it is proposed in the MOS to also be required for medical transport operations due to the overlapping requirement in those operations to manage incidents of ill health involving suspected communicable diseases.
* Crash axe or crowbar
	+ This requirement is not anticipated to result in compliance difficulties and therefore no delay period has been incorporated.

### Policy aim

Appropriately and reasonably modernise equipment standards for Part 121 operations.

### Question – Do the proposed requirements achieve the aim?

Please provide any comments you may have on the proposed policy.

*(Please note, this should not include points you have already raised)*

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Page 7: Further feedback on tranche 1 chapters

This consultation is on the third tranche of the Part 121 MOS. As the MOS has been split into three tranches for the purposes of consultation, respondents may want to provide supplementary feedback on tranches 1 and 2.

**Please use this page to provide any further comments you may have on tranche 1.**

Tranche 1 of the Part 121 MOS public consultations encompassed the following chapters:

* 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.

Please provide any comments you may have on the tranche 1 MOS chapters not already provided as part of the tranche 1 consultation activity.

*(If possible, avoid repeating points already made elsewhere in this consultation)*

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Page 8: Further feedback on tranche 2 chapters

This consultation is on the third tranche of the Part 121 MOS. As the MOS has been split into three tranches, respondents may want to provide supplementary feedback on tranches 1 and 2.

**Please use this page to provide any further comments you may have on tranche 2.**

Tranche 2 of the Part 121 MOS public consultations encompassed the following chapters:

* Chapter 9 – performance
* Chapter 12 – flight crew training and checking
* Chapter 13 – cabin crew training and checking
* Chapter 14 – emergency evacuation demonstrations and procedural requirements.

Please provide any comments you may have on the tranche 2 MOS chapters not already provided as part of the tranche 2 consultation activity.

*(If possible, avoid repeating points already made elsewhere in this consultation)*

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Page 9: Your priorities

When you reflect on the feedback you have provided throughout this consultation, what are the three matters you consider most important?

Priority 1

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Priority 2

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Priority 3

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