



SUMMARY OF PROPOSED CHANGE



Proposed new Part 105 Manual of Standards - Parachuting from aircraft

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|-----------------------|---------------|
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Introduction

Part 105 of the *Civil Aviation Safety Regulations 1998* (CASR) establishes a framework that consolidates and modernises existing requirements contained in legislative instruments made under regulation 152 of the *Civil Aviation Regulations 1988* (CAR) and directions made under Part 11 of the *Civil Aviation Safety Regulations 1998* (CASR) that are, or were, specific to two individual organisations.

Part 105 and the proposed Manual of Standards (MOS) will integrate parachuting activities in the Part 149 self-administration framework. This means Part 149 approved self-administering aviation organisations (ASAOs) must use Part 105 requirements in the performance of their Part 149 aviation administration functions.

Your feedback will help us check that the rules in the MOS work as intended.

The Part 105 regulations commenced on 2 December 2021, concurrently with the other new flight operations regulations—Parts 91, 103, 119, 121, 131, 133, 135 and 138 of CASR. As with other CASR flight operations Parts, Part 105 will have an accompanying Manual of Standards (MOS). The proposed Part 105 MOS is the subject of this consultation.

Some of the Part 91 rules have been turned off for aircraft operated for the conduct of Part 105 activities as they do not accommodate the unique circumstances relevant to parachute descents from aircraft. Table 1 summarises the Part 91 elements that do not apply to the conduct of a Part 105 activity and identifies the equivalent elements of Part 105.

Table 1: Provisions of Part 105 that replace Part 91 provisions

| Disapplied Part 91 provisions | Equivalent Part 105 provisions |
|-------------------------------|--|
| 91.190 | 105.090, MOS 4.01 105.095, MOS 4.05 |
| 91.570 | 105.105 |
| 91.575 | 105.110 |

It is important to note that not all sport aviation bodies that administer parachuting activities will be ASAOs on the Part 105 MOS commencement date. Transitional arrangements apply to such an organisation, whereby the organisation is exempt from Part 105 of CASR by the application of regulation 202.502 of CASR until the end of the legislated Part 149 of CASR transition period (1 December 2023).

During the development of the Part 105 MOS there has been several associated issues that have been identified for which Part 105 has no legislative head of power.

These issues are:

- Hot refuelling of parachuting aircraft.
- Type certification and carriage of passengers in excess of the manufacturer's published requirements.
- PICUS flight time on type requirements for pilots of aircraft used for descents by trainee or tandem parachutists.

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The matter of hot refuelling of parachuting aircraft is currently being managed by exemption CASA EX81/21 and in the longer term, the issue will be addressed by being provided for within Part 91 of CASR and the Part 105 MOS.

The remaining two matters of type certification and PICUS flight time on type is currently being examined further by CASA and industry members of the Part 105 TWG.

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Reference material

Acronyms

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

| Acronym | Description |
|---------|---|
| ATSO | <i>Australian Technical Standard Order</i> |
| ASAO | approved self-administering aviation organisation |
| CAAP | <i>Civil Aviation Advisory Publication</i> |
| CAR | <i>Civil Aviation Regulations 1988</i> |
| CASA | Civil Aviation Safety Authority |
| CASR | <i>Civil Aviation Safety Regulations 1998</i> |
| ETSO | <i>European Technical Standard Order</i> |
| MOS | manual of standards |
| PIC | pilot in command |
| SMS | safety management system |
| TSO | Technical Standard Order |
| TWG | technical working group |

Definitions

Terms that have specific meaning within this document are defined in the table below. Where definitions from the civil aviation legislation have been reproduced for ease of reference, these are identified by 'grey shading'. Should there be a discrepancy between a definition given in this document and the civil aviation legislation, the definition in the legislation prevails.

| Term | Definition |
|------------------------------|---|
| automatic activation device | A self-contained device that, if carried with a parachute assembly, automatically initiates deployment of the main parachute or the reserve parachute under predetermined conditions. |
| canopy relative-work coach | A holder of an authorisation for the assessment of the compatibility of the main parachute and the parachute container of a reserve parachute assembly, for the purpose of the use of equipment in a canopy relative-work descent |
| canopy relative work descent | A relative-work descent that involves the intentional manoeuvring of two or more parachutists with deployed (open) canopies in close proximity or contact with one other. |
| certified aerodromes | An aerodrome in respect of which an aerodrome certificate is in force. |
| cloud descent | A parachute descent in which the parachutist would enter cloud during the descent, or the drop zone would not be clearly visible to the parachutist throughout the descent. |

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| Term | Definition |
|----------------------------------|---|
| chief parachuting instructor | In relation to a parachute descent by a trainee parachutist or tandem parachutist, means the person appointed under section 5.42 as the chief. |
| competent issuing authority | Is either the national aviation authority of a Contracting State or a body that: <ul style="list-style-type: none"> (i) has been authorised by the national aviation authority of a Contracting State to issue manufacturing approvals (however described) for emergency parachutes, or reserve parachute assemblies, to which Part 105 of CASR applies; and (ii) CASA has accepted, in writing, as a body competent to issue manufacturing approvals (however described) for the parachutes or assemblies. |
| direct supervision | Is by a drop zone safety officer, in relation to a parachute descent, means supervision where the drop zone safety officer is present throughout all phases of the operation, whether at the drop zone or in the aircraft that is facilitating the descent. |
| display descent | A parachute descent conducted for the purpose of a parachuting display. |
| display organiser | A person who holds an authorisation issued by a Part 105 ASAO under procedures mentioned in section 5.44. |
| drop zone | The area, specified by the drop zone safety officer who is performing duties for a parachute descent, intended for the landing of a person undertaking the parachute descent. |
| drop zone safety officer | In relation to a parachute descent undertaken by a trainee parachutist or tandem parachutist: (i) means the holder of an endorsement mentioned in paragraph 5.25(2)(a) who is approved to act as the drop zone safety officer for the descent by the chief parachuting instructor under the procedures mentioned in that paragraph; and (ii) if the descent is a display descent undertaken by a tandem parachutist—means the endorsement holder mentioned in subparagraph (i) who has been nominated to act as the drop zone safety officer for the display descent by the display organiser of the parachuting display.) In relation to a parachute descent other than a descent mentioned in the fore mentioned means the holder of an authorisation mentioned in paragraph 5.25(2)(b) that covers that descent. |
| empty weight | Is the weight, as determined in accordance Civil Aviation Order 100.7, of an aircraft, including all items of fixed equipment and other equipment which is mandatory for all operations, fixed ballast, unusable fuel and total quantities of oil, engine coolant and hydraulic fluid but excluding all other items of disposable load. |
| emergency parachute | A personnel parachute carried on an aircraft, to be used by a person to abandon the aircraft in an emergency situation. |
| fore-and-aft parachute equipment | Parachute equipment used for undertaking a parachute descent, in which the person who undertakes the parachute descent is equipped with two parachute containers. One of which contains the main parachute and the other of which comprises the container mentioned paragraph 1.04(5)(a) in the definition of reserve parachute assembly, and that is not configured to carry a main parachute. |

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| Term | Definition |
|--|---|
| freefall | Is the period between when a person undertaking a parachute descent exits the aircraft and when the parachute is completely open. |
| freefly | For a person undertaking a parachute descent, means a freefall descent undertaken with the parachutist's body being predominantly in a vertical head-up or head-down position. |
| ground control assistant | A person who holds a ground control authorisation. |
| ground control authorisation | An authorisation that is issued by a Part 105 ASAO that administers a parachute descent and authorises the holder to undertake ground control during the operation of an aircraft to facilitate a parachute descent. |
| high altitude | For a parachute descent, means a parachute descent in which the parachutist exits an aircraft used to facilitate the parachute descent at a pressure altitude above flight level 150. |
| jump pilot authorisation | An authorisation that is issued by a Part 105 ASAO that administers a parachute descent and authorises the holder to act as pilot in command of the aircraft in a parachute training operation |
| loadmaster | A person who is nominated by the drop zone safety officer who is performing duties for a parachute descent, to have the responsibilities mentioned in section 5.27 in relation to the descent. |
| main parachute | A personnel parachute that is not a reserve parachute or an emergency parachute; and that is either: (i) packed into the parachute container of a reserve parachute assembly for the purpose of undertaking a parachute descent; or (ii) packed into a parachute container separate to the container of the reserve parachute assembly, and is used in conjunction with the reserve parachute assembly when undertaking a parachute descent. |
| manufacturer of an emergency parachute or reserve parachute assembly | Is the holder, or previous holder, of an approval for the parachute or assembly, granted under Part 21 of CASR, mentioned in regulation 21.305 of CASR or the holder, or previous holder, of a manufacturing approval (however described) for the parachute, or assembly, issued by a competent issuing authority |
| packer | The holder of a packer authorisation |
| packer authorisation | An authorisation issued by a Part 105 ASAO that administers the airworthiness of a parachute, that authorises the holder to carry out the following activities on the parachute: (i) pack the parachute; (ii) assemble the parachute; (iii) inspect the overall condition of the parachute assembly to determine the airworthiness of the assembly; (iv) repair minor defects in the parachute, the parachute container or the harness. In addition, approve a reserve parachute, emergency parachute, or main parachute mentioned in section 5.05, for return to service following maintenance the packer has carried out. |
| parachute packing logbook | A logbook in which written records relating to the airworthiness of a parachute are kept, and is attached, or carried on, the parachute or if the logbook is kept electronically, may be accessed by some means (that links to the logbook) that is attached, or carried on, the parachute, such as a label or tag. |
| parachute training operation | An aircraft operation conducted by a parachuting training organisation that involves a descent from the aircraft by a trainee parachutist or a tandem parachutist (or both). |

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| Term | Definition |
|---------------------------------|---|
| parachuting activity | Includes a parachute descent, packing a parachute, maintaining a parachute, assembling a parachute, supervising a parachute descent, operating an aircraft to facilitate a parachute descent, providing training in an activity covered by any of the fore mentioned. It also includes carrying on a business or undertaking involving the provision of services or equipment for undertaking a parachute descent and any activity prescribed by the Part 105 Manual of Standards. |
| parachuting display | Is organised parachuting performed before a public gathering. |
| parachute training | For the grant of a parachutist certificate, or a rating or endorsement on the certificate, means training and assessment in all the units of competency (however described) required by a Part 105 ASAO that administers parachute descents, for the issue of the certificate, rating or endorsement: (a) for a parachutist certificate—to undertake a parachute descent; and (b) for a rating or endorsement on the parachutist certificate—to conduct the activities authorised by the rating or endorsement. |
| parachute training organisation | A person whois administered by a Part 105 ASAO under an approved function mentioned in section 27 of the Part 149 Manual of Standards and holds an authorisation issued by the ASAO to conduct parachuting training. |
| parachutist authorisation | Is a parachutist certificate and any rating or endorsement (however described) in relation to that authorisation, authorising the person to conduct specified activities that relate to either (i) undertaking a parachute descent; or (ii) parachuting training for undertaking a parachute descent. |
| parachutist certificate | An authorisation (other than a student parachutist certificate or a tandem parachutist certificate) that authorises the holder to undertake a parachute descent. |
| parachutist instructor | A person holding a parachutist authorisation, issued by a Part 105 ASAO, that authorises the person to conduct parachuting training. |
| relative-work descent | A parachute descent in which persons who are undertaking parachute descents attempt to bring themselves together while in freefallor while under an opened parachute. |
| reserve parachute | Is a second or auxiliary personnel parachute worn by a person undertaking a parachute descent. |
| reserve parachute assembly | All the assembled components that make up a complete, functional reserve parachute, including the following: (a) the parachute container (but not including a main parachute that is packed in the container); (b) the container harness, and any dual harness (to be worn by a tandem parachutist) that attaches to the container harness; (c) the ripcord, pilot parachute and suspension lines, including all associated components and attachments; (d) the reserve parachute. |
| reserve static line | A line, attached to the main parachute, that initiates the deployment of the reserve parachute following the jettisoning of the main parachute. |
| rigger | The holder of a rigger authorisation. |
| rigger authorisation | An authorisation, issued by a Part 105 ASAO that administers the airworthiness of a parachute: (a) for which the grant of a packer authorisation is a pre-requisite; and (b) that authorises the holder to carry out the following activities on the |

| Term | Definition |
|---------------------------------|---|
| | parachute (in addition to the activities the person is authorised to carry out under their packer authorisation): (i) repairs and modifications of the parachute, parachute container and container harnesses and any dual harness that attaches to the container harness; (ii) in the case that the parachute is other than a reserve parachute or emergency parachute—the manufacture, using a sewing machine, of parachute components for the parachute; (iii) approve a reserve parachute, emergency parachute, or main parachute mentioned in section 5.05, for return to service following maintenance the person has carried out. |
| student parachutist certificate | An authorisation that authorises a trainee parachutist who does not hold a parachutist certificate and is receiving parachuting training to conduct a solo parachute descent under the supervision of a parachutist instructor. |
| tandem descent | A parachute descent, conducted as part of a parachute training operation, by a parachuting instructor who holds an endorsement (however described) that authorises the person to control a parachute descent in which a tandem parachutist is carried and a tandem parachutist. |
| tandem parachutist certificate | An authorisation that authorises a person who does not hold a parachutist certificate to undertake a parachute descent as a tandem parachutist. |
| trainee parachutist | A person who is undertaking a parachute descent in the course of receiving parachutist training, for the purpose of: (a) if the person holds a student parachutist certificate —obtaining a parachutist certificate; or (b) if the person holds a parachutist certificate—obtaining a rating or endorsement (however described) on the parachutist certificate. |

References

Legislation

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

| Document | Title |
|--------------|--|
| CAR | <i>Civil Aviation Regulations 1988</i> |
| CASA EX81/21 | CASA EX81/21 – Part 91 of CASR – Supplementary Exemptions and Directions Instrument 2021 |
| Part 91 MOS | Part 91 (General Operating and Flight Rules) Manual of Standards 2020 |

Advisory material

CASA's advisory materials are available at <https://www.casa.gov.au/publications-and-resources/guidance-materials>

| Document | Title |
|------------|---|
| CAAP 152-1 | Parachuting Through Cloud: Evaluation of applications by parachuting operators and issue of approvals by CASA |

Key proposals

This section outlines the specific proposals for the proposed Part 105 MOS.

Preliminary (Chapter 1)

Chapter 1 prescribes the relevant definitions, the interpretation of Technical Standard Orders (TSOs), European Technical Standard Orders (ETSOs), and provides for the prescribed Part 105 activity of ground control.

Proposal 1 - Preliminary provisions and prescribed activities (Subsections 1.01 to 1.06)

Section 1.04 provides the definitions of key words, phrases and abbreviations used in the MOS.

Section 1.05 Reserve and emergency parachutes generally must satisfy standards specified in a TSO or ETSO. The section provides the basis for how that is to be interpreted.

Section 1.06 prescribes ground control, being communications for the purpose of ensuring the safe conduct of a parachute descent between a person on the ground (a ground control assistant) and the pilot in command (PIC) of an aircraft being used to facilitate a parachute descent. The purpose of the prescription is to ensure the ASAO administering the descent also has oversight of the person conducting ground control.

Reserve parachute assembly, and emergency parachute, requirements (Chapter 2)

The purpose of Chapter 2 is to specify baseline standards for reserve parachute assemblies and emergency parachutes that will apply to all ASAOs, while preserving or providing an avenue of approval for certain existing standards set out in organisations manuals. The chapter modifies existing standards accepted by parachuting organisations by omitting certain standards that do not meet a TSO, or do not satisfy the previously in force air navigation order (ANO) 103.18. For some of the omitted standards, the chapter provides a mechanism to allow for the acceptance of non-TSO parachutes if they have a national aviation authority (NAA) approval acceptable to CASA.

Proposal 2 - Airworthiness standards for reserve parachute assemblies and emergency parachutes (Subsections 2.02 to 2.06)

Section 2.04 prescribes that a reserve parachute assembly must satisfy TSOC23 or ETSO- C23. The section also provides that a legacy reserve parachute for which a determination was made under ANO 103.18 is taken to meet TSO-C23. For non-legacy reserve parachute assemblies that do not meet the TSO or ETSO requirement, the section also includes a mechanism that, subject to CASA approval, provides for the acceptance of such equipment for which the NAA of a Contracting State has made a written determination, or decision, that the reserve parachute assembly meets the requirements of a parachute equipment specification or standard.

The section also prescribes that a reserve parachute assembly must have been maintained in accordance with the requirements of the original equipment manufacturer, any additional requirements specified by the manufacturer in service bulletins or technical notes, as well as any

documents relating to the continuing airworthiness of the assembly or parachute as may be issued by the administering Part 105 ASAO.

Section 2.05 sets out how inconsistent requirements for the maintenance of a reserve parachute assembly between those set by a manufacturer and those set by a Part 105 ASAO are to be resolved.

Section 2.06 provides that a reserve parachute assembly must be maintained in accordance administering Part 105 ASAO's airworthiness requirements if the reserve parachute assembly manufacturer no longer provides airworthiness support, and the ASAO has assumed airworthiness support for the parachute.

Section 2.07 prescribes the certification standards to be met for the manufacture and maintenance of an emergency parachute provide a mechanism to resolve conflicting instructions in published maintenance requirements. The section also provides that a legacy emergency parachute for which a determination was made under ANO 103.18 also meets TSO-C23. For non-legacy emergency parachutes that do not meet the TSO or ETSO requirement, the subsection also includes a mechanism that, subject to CASA approval, provides for the acceptance of such equipment for which the NAA of a Contracting State has made a written determination, or decision, that the emergency parachute meets the requirements of a parachute equipment specification or standard. The section also prescribes that an emergency parachute must have been maintained in accordance with the requirements of the manufacturer.

Section 2.08 provides that an emergency parachute must have been maintained in accordance administering Part 105 ASAO's airworthiness requirements if the emergency parachute manufacturer no longer provides airworthiness support and the ASAO has assumed airworthiness support for the parachute.

Parachute descents of trainee or tandem parachutists (Chapter 3)

Chapter 3 provides for requirements to be included in an ASAO's exposition specifying the aircraft maintenance requirements and jump pilot requirements, in relation to parachute descents involving trainee parachutists or tandem parachutists.

Proposal 3 - Descents involving trainee parachutists or tandem parachutists (Subsections 3.01 to 3.04)

Section 3.01 provides pilot training and recency requirements that apply to the pilot of an aircraft used to facilitate a descent involving a trainee parachutist or tandem parachutist. These requirements are for aircraft that are not Part 103 aircraft.

This section also prescribes the circumstances in which the PIC must meet recent experience requirements, and how such requirements are satisfied.

Section 3.02 prescribes the flight time requirements for the PIC of a powered-lift aircraft being operated to facilitate a parachute descent by a trainee parachutist, a tandem parachutist or both.

Section 3.03 provides aircraft maintenance requirements that apply to an aircraft used to facilitate a descent involving a trainee parachutist or tandem parachutist.

These requirements reflect existing requirements in legislative instruments and expositions.

Dropping things (Chapter 4)

Chapter 4 provides for the requirements in relation to the dropping of things (objects) during the conduct of a parachute descent or from a parachuting aircraft.

Proposal 4 - Dropping of things (Subsections 4.01 and 4.05)

Current operational regulations do not permit the dropping of things by a parachutist or from an aircraft used for parachuting. The dropping of objects was generally prohibited by repealed CAR 150 and this prohibition is continued by regulation 91.190 of CASR. Regulation 91.190 of CASR is disapplied in relation to Part 105 of CASR for the purpose of enabling the Part to provide for the dropping of things during a parachuting activity while also ensuring the safety of third parties on the ground and minimising hazards to other aircraft and property.

Section 4.01 prescribes that an unweighted paper or fabric streamer that would not create a hazard to another aircraft, a person or property can be dropped over a populous area from the aircraft before a parachute descent or during a parachute descent, but only if it is used solely as a wind drift indicator.

Section 4.02 prescribes that the dropping of anything other than an unweighted paper or fabric streamer used as a wind draft indicator over a non-populous area may only be dropped if it is not a dangerous good and it would not create a hazard to another aircraft, a person or property. In addition, the ASAO that administers a parachute descent in which things are to be dropped must include in its exposition procedures that permit the dropping of things and information required to be supplied by the drop zone safety officer for the purposes of section 4.03.

Section 4.03 provides that an (ASAO) must have procedures that ensure the dimensions of the drop zone are set out such that there is no risk of the thing being drop landing outside the drop zone; the drop zone is cleared of any people or livestock not involved in the dropping activity; and the owner or occupier, including their agents, have given written permission for the dropping activity to occur.

Operational requirements (Chapter 5)

Chapter 5 deals with specified operational requirements for the conduct of parachute descents. Because Part 105 of CASR considers the operation of multiple parachuting organisations under the Part 149 framework, the chapter provides a baseline set of operational rules that would apply to all Part 105 ASAOs. As such, the provisions generally specify requirements that are not new to extant organisations, but are the same as, or similar to, the requirements currently specified by those organisations in their expositions or operational regulations.

Proposal 5 - Continuing airworthiness for parachutes (Sections 5.02 to 5.20)

Division 1 prescribes, in sections 5.02 through 5.20, requirements relating to the continuing airworthiness of parachutes.

Section 5.02 provides that an ASAO must set out in its exposition the competency standards and units of competency required of a person for the issue of a packer or rigger authorisation.

Section 5.03 provides airworthiness requirements for reserve parachutes for Part 105 ASAO's.

Section 5.04 through 5.06 provides requirements relating to the maintaining and completion of parachute packing logbooks and sets out what the packing logbooks must record.

Section 5.07 provides requirements for approving the return to service of parachutes after maintenance.

Section 5.08 provides requirements relating to packer and rigger personal logbooks and sets out what the logbook must record.

Section 5.09 prescribes that a person who undertakes a parachute descent (including a student parachutist) must be wearing parachute equipment comprised of a main parachute and a reserve parachute, including that an instructor is also responsible for ensuring student parachutists comply with the requirement.

Section 5.10 provides requirements, that apply to a parachutist and parachutist instructor, relating to ensuring the compatibility of a main parachute with the parachute container.

Section 5.11 provides requirements, that apply to a packer or rigger, relating to the assessment of compatibility of the main parachute and the parachute container.

Section 5.11A provides the meaning of canopy relative-work descent and provides the requirements, that apply to a canopy relative-work coach, a packer or a rigger, relating to the assessment of compatibility of the main parachute and the parachute container in a canopy relative-work descent.

Section 5.12 provides requirements, that apply to a packer or rigger, relating to the assessment of compatibility of the main parachute and the reserve parachute after changing a component of the main parachute or reserve parachute.

Section 5.13 imposes requirements on parachutists relating to ensuring the recurrence of periodic inspections of reserve parachutes.

Section 5.14 provides resolution for inconsistency between a reserve parachute manufacturer requirements and Part 105 MOS requirements relating to reserve parachute inspection periods.

Section 5.15 sets out who may carry out an inspection and packing of a reserve parachute and what the inspection must assess.

Section 5.16 sets out that if a packer or rigger carrying out an inspection of the reserve parachute assembly after undertaking maintenance, they must conduct an assessment whether the parachute container continues to be compatible with the main parachute that is being used with the reserve.

Section 5.17 sets out who may carry out an inspection and packing of an emergency parachute and what an inspection must assess.

Section 5.18 imposes requirements on packers and riggers in relation to parachute repairs or parachute modifications.

Section 5.19 sets out the requirements for a packer or rigger to approve a reserve parachute for return to service following maintenance.

Section 5.20 sets out the requirements for a packer or rigger to approve an emergency parachute for return to service following maintenance.

Proposal 6 - Pilots of aircraft operated to facilitate parachute descents (Sections 5.21 and 5.22)

Division 2 prescribes, in sections 5.21 and 5.22, the safety requirements that apply relating to pilots of aircraft operated to facilitate parachute descents.

Section 5.21 provides requirements relating to the competency standards required for jump pilot authorisations. It provides that the administering ASAO must set out in its exposition its competency standards and units of competency for jump pilot training and its procedures for authorising a person to conduct jump pilot training.

Section 5.22 prescribes jump pilot radio procedures, including the broadcasts that must be made by the pilot for the purposes of a parachute descent.

The proposals are generally consistent with existing practice and procedures.

Proposal 7 - Conduct of parachute operations (Sections 5.23 to 5.49)

Division 3 prescribes, in sections 5.23 through 5.49, requirements for the conduct of parachute descents.

Section 5.23 prescribes a list of the types of descents from which an ASAO must, in its exposition, specify are permitted by the ASAO and for which it must include safe conduct procedures.

Section 5.24 prescribes the requirements relating to a parachutist's logbook including the details to be included in the logbook and its accessibility.

Section 5.25 provides the requirements for an ASAO that administers parachuting to include the procedures for drop zone safety officers in the exposition.

Section 5.26 sets out the responsibilities of a drop zone safety officer.

Section 5.27 sets out the responsibilities of the loadmaster for a parachute descent.

Section 5.28 prescribes the requirements for when a control seat of a jump aircraft may be occupied by a parachutist.

Section 5.29 provides requirements in relation to minimum parachute opening heights for tandem descents and for descents by student parachutists. The provisions enable an ASAO to set alternative opening heights for trainee and tandem parachutists, that are higher than the prescribed minima, and for an ASAOs to set opening heights at its discretion for parachutist certificate holders. In the case where an ASAO has not set a minimum opening height that applies to a certificate holder, the provision also sets a minimum.

Section 5.30 prescribes requirements relating to intentional cutaway descents.

Section 5.31 prescribes that, for a parachute descent that is to be conducted at high altitude the person who is undertaking the descent must hold a parachutist certificate. Any parachute descent above FL250, including tandem descents, must have written approval from CASA.

Section 5.32 provides requirements in relation to the conduct of relative-work descents. It also sets out the ASAO exposition requirements for the competency standards for training that the ASAO must require to be completed for the issue of authorisations to persons to conduct relative-work descents. The section also prohibits the conduct of canopy-relative work descents with persons who are undertaking a tandem descent.

Section 5.33 provides requirements in relation to entering cloud during a parachute descent.

Section 5.34. Provides the applicable standards for personal flotation devices used for parachute descents over water at the time they are manufactured. The standards reflect international standards The ASAO that administers the parachute descent may include, in its exposition, additional requirements in relation to flotation devices.

Section 5.35 provides the exposition requirements which apply to an ASAO, in relation to the competency standards for an authorisation that authorises a person to control a tandem descent as a parachute instructor and in relation to safe conduct procedures of tandem descents by the person. The requirements are consistent with existing practice and procedures.

Section 5.36 provides the requirements in relation to responsibilities of jump pilots and parachutists if the meteorological conditions do not allow for clear visibility of the drop zone.

Section 5.37 provides a requirement for communications to be maintained between the ground control assistant and jump pilot.

Section 5.38 provides the requirement that the jump pilot or a parachutist instructor must ensure that a knife suitable for emergency situations is carried on board the jump aircraft.

Section 5.39 provides wind velocity requirements that a drop zone safety officer must ensure are met prior to a parachute descent.

Section 5.40 provides requirements in relation to the securing of objects not intended to be dropped that are carried by a parachutist. It also provides requirements for the use of visual and audible altimeters, reserve static lines and automatic activation devices and their approval by the ASAO in accordance with its exposition. Commencement of the latter requirements is proposed to be deferred until 2 December 2024.

Section 5.41 requires a parachute training organisation to have an SMS which is appropriate for the size, nature and complexity of the parachute training organisation, and prescribes the matters to be included in the SMS and identifies persons that are required to comply with the SMS.

Section 5.42 provides that a parachuting training organisation must appoint chief parachuting instructor and the chief instructor's responsibilities. It also provides for an ASAO to establish procedures for organisations to appoint chief instructors and for the ASAO to approve chief instructor appointments.

Section 5.43 provides a requirement that a parachuting instructor must always wear a parachute while on board an aircraft where they are supervising a parachute descent by a trainee parachutist. The section also provides that a parachuting training organisation must have appointed a chief parachuting instructor before providing parachuting training.

Section 5.44 provides requirements relating to the responsibilities of an ASAO authorised parachuting display organiser.

Section 5.45 provides requirements relating to the conduct of display descents and the equipment requirements of display descents. The requirements of both sections are consistent with existing practice and procedures.

Section 5.46 provides a requirement that a person conducting a descent over a populous area must use a steerable main and reserve parachute. However, the administering ASAO may approve the use of a non-steerable main parachute for the descent.

Section 5.47 provides requirements relating to the safe management of parachuting drop zones. The requirements are consistent with existing practice and procedures.

Section 5.48 provides for, and identifies, existing legislative requirements that apply to a person making a radiocommunications broadcast for the purposes of ground control.

Section 5.49 provides that an ASAO that administers a parachute descent must include in its exposition procedures for the safe conduct of operations at a drop zone regarding parachute and container compatibility.

Proposal 8 - Conduct of aircraft operations (Sections 5.50 to 5.55)

Division 4 of Chapter 5 in sections 5.50 through 5.55 provides the requirements for the conduct of aircraft operations for facilitating parachuting descents.

Section 5.50 provides a requirement that each person carried on board a parachuting aircraft must take all necessary steps to ensure they do not present a hazard to the operation of the aircraft.

Section 5.51 provides the requirement that a door of a parachuting aircraft that is not a Part 103 aircraft must not be opened or removed unless that action is permitted by the aircraft flight manual instructions

Section 5.52 provides the requirements for the removal (or refit) of a door, or a canopy of a Part 103 aircraft being used to facilitate a parachute descent.

Section 5.53 provides the requirements that apply to the PIC of a parachuting aircraft in a parachute training operation to allow parachutists to exit at non-controlled aerodromes where carriage of a radio is required.

Section 5.54 provides the requirements that apply to parachutists and the PIC of a parachuting aircraft for parachute descents at certified aerodromes.

Section 5.55 provides a requirement that applies to the PIC of a Part 131 aircraft (manned free balloons) to mitigate the risk of an uncontrolled ascent following the exit of a parachutist from the aircraft. The section also provides that a Part 131 ASAO (balloon) must include in its exposition procedures for safe conduct that apply to manned free balloons operated for a Part 131 recreational activity and used for the purpose of facilitating a parachute descent.

The requirements specified in this Division are consistent with existing practice, procedures and legislative requirements.

Personnel fatigue management (Chapter 6) - reserved chapter

Chapter 6 has no requirements are currently prescribed. This chapter is reserved to preserve the MOS structure for any future provisions that would be appropriate following consultation.

Weight and balance (Chapter 7)

Chapter 7 provides the requirements for the management of aircraft weight and balance, including the requirements in relation to the loading of any parachuting aircraft being operated to facilitate a parachute descent.

Proposal 7 - Weight and Balance (Subsections 7.02 to 7.04)

Section 7.02 provides the requirements for the operator of an aircraft and the pilot in command when they are facilitating a parachute descent, that they must ensure a loading sheet is complete before the departure of a flight. The loading sheet may be in physical or electronic format.

Section 7.03 provides the requirements in relation to the information that is to be included in the loading sheet for an aircraft other than manned free balloons.

Section 7.04 provides the requirements in relation to the information that is to be included in the loading sheet for a Part 131 aircraft

Instruments, indicators, equipment and systems (Chapter 8)

Chapter 8 specifies the additional (compared to Part 91 of CASR) radio equipment and oxygen equipment that must be carried on parachuting aircraft and the circumstances under which equipment must be used.

Proposal 9 - Aircraft equipment (Sections 8.01 to 8.03)

Section 8.02 provides that the operator of a parachuting aircraft (other than a Part 103 aircraft or a manned free balloon), must ensure the aircraft is fitted with 2 VHF radios if operating in airspace other than class G airspace and one VHF radio if only operating in class G airspace. The section also provides that that the operator of a parachuting aircraft that is a Part 103 aircraft or a manned free balloon must ensure the aircraft is fitted with 1 VHF radio.

Section 8.03 provides that the operator of an unpressurised parachuting aircraft (other than a Part 103 aircraft) must ensure that supplemental oxygen is provided in accordance with Part 91 of CASR. The section also provides that a person on board the aircraft must use the supplemental oxygen in accordance with Part 91 of CASR.

The requirements specified in this chapter are consistent with existing legislative requirements.

Flight crew (Chapter 9)

Chapter 9 specifies the pilot requirements for parachute descents from a Part 103 aircraft or manned free balloons.

Proposal 10 - Pilot requirements for parachute descents—manned free balloons (Section 9.01)

Section 9.01 requires the pilot in command of a Part 103 aircraft being operated to facilitate a parachute descent to meet specified pilot certification, aeronautical experience, and flight time requirements.

Section 9.02 provides that the pilot of a manned free balloon being operated for a parachute descent, if the operation is a Part 131 recreational activity, must not operate the aircraft to facilitate a parachute descent at night.

Prior industry engagement

Following the making of the regulations in December 2019, the Part 105 MOS has been developed for consultation. Extensive engagement has occurred with the Part 105 Technical Working Group (TWG) prior to this public consultation.

The TWG endorsed the MOS for public consultation but disagreed with the provisions permitting the use of target panels and the published minimum parachute opening heights. The TWG also recommended that the definition for a reserve static line should explicitly state that it includes a main assisted reserve deployment system. The TWG is satisfied that wider public consultation, with these outstanding items clearly identified, could help resolve any issues.

CASA looks forward to feedback on these issues through the consultation process so that we can achieve safe and practical outcomes.

Impact on industry

The majority of the proposed Part 105 MOS requirements will be already addressed in existing expositions and manuals. However, noting that expositions may consist of a number of individual manuals of different names, the introduction of common requirements will require some ASAOs to amend their expositions. Where the proposed requirements might require an exposition to be amended, compliance has been stated in the MOS as only being required from 2 December 2024.

Sport aviation bodies that are yet to become ASAO's are exempted from Part 105 of CASR provided they satisfy the transitional requirements of regulation 202.502 of CASR. Hence, no changes to their operational regulations are required until they apply for an ASAO certificate.

Safety risk analysis

In developing Part 105 of CASR, CASA has conducted a safety risk analysis in relation to the hazards associated with parachuting activities covered by the regulations addressing parachute descents, pilot skills, drug and alcohol issues, fatigue, restraint of parachutists on aircraft, operational requirements and the design, maintenance, and use of parachute emergency equipment. The risks associated with the identified hazards ranged from low to extreme. Noting the inherently hazardous nature of parachuting, the Part 105 regulations and the Part 105 MOS implement the necessary mitigation measures such that the expected residual consequence of the risks identified in that analysis are likely to be achieved.

Regulation impact statement

The Office of Best Practice Regulation (OBPR) has confirmed that the impacts of the measures provided for by Part 105 of CASR are likely to be no more than minor and that no further analysis in the form of a Regulation Impact Statement is required (OBPR ID: 25648).

Closing date for comment

CASA will consider all comments received as part of this consultation process and incorporate changes as appropriate. Comments on the draft Part 105 MOS should be submitted through the online response form by close of business 22 January 2023.