Australian Government
Civil Aviation Safety Authority

# ACCEPTABLE MEANS OF COMPLIANCE AND GUIDANCE MATERIAL


## Australian air transport operations - smaller aeroplanes

CASR Part 135

| | |
|---|---|
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*An Acceptable Means of Compliance (AMC) explains how one or more requirements of the Civil Aviation Safety Regulations 1998 (CASR) for the issue of a certificate, licence, approval or other authorisation, can be met by an individual or organisation applying to Civil Aviation Safety Authority (CASA) for the authorisation.*

*Applicants are not required to comply with an AMC but if they do, CASA will issue the authorisation to which the AMC relates.*

*Note: For the purposes of public consultation on Part 135 in July/August 2018, CASA has provided only limited AMC but more GM. It is intended that more AMC may be issued as the Part 135 AMC/GM is further developed well in advance of the commencement of CASR Part 135 (early 2021).*

*Individuals and operators may, on their own initiative, propose other ways of meeting the requirements of the CASR; however, any such proposal will be subject to separate assessment by CASA to determine whether the authorisation can be issued.*

*Guidance Material (GM) provides explanations and amplification of the policy intention, rather than a means of complying with it. GM should be read in conjunction with the applicable CASR and AMCs. GM is identified by grey shaded text.*

# Contents

# Status

This version of the AMC/GM is approved for the purposes of CASR Part 135 public consultation in August 2018 by the Manager, Flight Standards Branch.

| Version | Date | Details |
|---|---|---|
| v1.0 | August 2018 | Initial version. |

# 1 Reference material

## 1.1 Acronyms

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

| Acronym | Description |
|---|---|
| AC | advisory circular |
| ACAS | airborne collision avoidance system |
| AFM | aeroplane flight manual |
| AIP | Aeronautical Information Package |
| ATC | air traffic control |
| ATS | air traffic services |
| ATSB | Australian Transport Safety Bureau |
| CAAP | Civil Aviation Advisory Publication |
| CAR | *Civil Aviation Regulations 1988* |
| CASA | Civil Aviation Safety Authority |
| CASR | *Civil Aviation Safety Regulations 1998* |
| ERSA | En-Route Supplement Australia |
| IFR | instrument flight rules |
| IRM | immediately reportable matter |
| LMC | last minute change |
| MEL | minimum equipment list |
| MOPSC | maximum operational passenger seat configuration |
| MOS | Manual Of Standards |
| MLW | maximum landing weight |
| MTOW | maximum take-off weight |
| NZCAA | New Zealand Civil Aviation Authority |
| OEI | one engine inoperative |
| PED | personal electronic device |
| PIC | pilot in command |
| PSEA | prescribed single engine aeroplane |
| RRM | routinely reportable matter |
| SMS | safety management system |
| TCAS | traffic collision avoidance system |

## 1.2 Definitions

Definitions for terms used in this AMC/GM are available from the CASR Dictionary.

Terms that have specific meaning within this AMC-GM are defined in the table below.

| Term | Definition |
|---|---|
| | TBA |

## 1.3 References

### Regulations

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

| Document | Title |
|---|---|
| Civil Aviation Act | *Civil Aviation Act 1988* |
| Civil Aviation Regulations | *Civil Aviation Regulations 1988* |
| Civil Aviation Safety Regulations | *Civil Aviation Safety Regulations 1998* (CASR) |
| Part 23 | Part 23 of the CASR |
| Part 25 | Part 25 of the CASR |
| Part 91 | Proposed Part 91 of the CASR consulted publicly during March / April 2018 |
| Part 119 | Proposed Part 119 of the CASR consulted publicly in July / August 2018 |
| Part 121 | Proposed Part 121 of the CASR consulted publicly in July / August 2018 |
| CASR Dictionary | Part 1, Part 2, Part 3 of the draft CASR Dictionary provided as part of the Part 119/121/133/135 of CASR public consultations in July / August 2018 |

### Advisory material

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

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

**Note:** It is CASA's intent to review all CAAPs covering subject matter that pertains to CASR Parts 91/119/121/133/135/138 during 2019 and re-issue these documents as updated AMC/GM or AC.

| Document | Title |
|---|---|
| FAA AC 121-24C | Passenger Safety Information Briefing and Briefing Cards |
| EASA Air OPS Easy Access Rules | Commission Regulation (EU) No 965/2012 on air operations and related EASA Decisions (AMC & GM and CS-FTL.1) |
| NZ CAA Aircraft Icing | CAA Aircraft Icing Handbook |

| Document | Title |
|---|---|
| Handbook | |

## 1.4 Forms

CASA's forms are available at http://www.casa.gov.au/forms

| Form number | Title |
|---|---|
| 1058 | Suspected Unapproved Parts Report |

# 2 Foreword

This document is draft guidance and if a discrepancy exists between the regulations and this document the regulations must be followed.

This document has been developed for consultation to provide indicative advice to the Australian aviation industry and other CASA external and internal stakeholders so that educated assessments about the effect of the proposed CASR Part 135 regulations can be made.

This document does not yet provide all the eventual content that will be required by industry and CASA to implement the proposed CASR Part 135 regulations.

Not all references in this document are certain to be accurate due to the multiple public consultations occurring in close succession for CASR Parts 121, 133 and 135.

Whilst suggestions for improvement to this document are welcomed as part of this consultation on CASR Part 135, further public consultation is possible late in 2019 after the regulations have been settled and CASA further develops this document.

# 3 Subpart 135.A—Preliminary

**GM 135.005 Application of Part 135**

The following definitions fundamental to understanding the applicability of Part 135 of CASR are found in Part 1 of the draft CASR dictionary accompanying this public consultation:

- Australian air transport operation
- maximum operational passenger seat configuration (MOPSC)
- maximum take-off weight.

By defining the applicability of Parts 121 and 135 of CASR partially in relation to MOPSC instead of certificated seating capacity, elements of industry that operate aircraft close to the boundary between these two CASR parts are provided with the flexibility to modify their aircraft (this would need to be done in accordance with other elements of the regulations) if, for their business model, it is more appropriate to operate in Part 135 instead of Part 121. This modification would need to physically remove the passenger seats that would otherwise mandate operations in accordance with Part 121 of CASR.

Relationship with Part 91 of CASR

Provisions in Part 135 are such that they impose requirements over and above the standards in Part 91, but where the table contained within reg 135.005 of CASR does not state that a Part 135 regulation applies in place of a Part 91 regulation, then the relevant Part 91 regulations apply.

Part 91 prescribes the regulatory requirements that apply, by default, to all operations. Part 135 regulations generally differ from Part 91 for two main reasons. Firstly, to ensure that, where necessary, a higher standard has been required of an air transport operation. Secondly, to enable an air transport operator to take advantage of their greater control and supervision of operations to provide an alleviation or alternative method of compliance with certain rules.

Where an air transport operation is not being conducted an operator may elect to comply with their normal air transport procedures or may, if the Part 135 regulation imposes a higher requirement, elect to operate to the Part 91 rule for a non-air transport operation flight. For example, after conducting a passenger transport operation the aircraft needs to be flown to another aerodrome to be refuelled. That flight to the refuel location is not an air transport operation and therefore is not required to comply with Part 135 regulations. This is no different to the current rules where following a charter flight, the aircraft may be re-positioned for a refuel and this secondary flight would, under the current rules, be classified as a private flight.

**AMC 135.015 Compliance with Part 121 provisions**

Where an organisation operates different aeroplanes that would require compliance for some aeroplanes with Part 135 and other aeroplanes with Part 121, an acceptable means of complying with Part 135 of the CASR is to conduct all operations in compliance with Part 121 of the CASR.

Similarly, organisations operating only smaller aeroplanes may choose to conduct all operations in compliance with Part 121 rules.

This Part 135 regulation specifies that a provision about the "same matter" in Part 121 may substitute for a Part 135 provision. However, some provisions in Part 121 are inextricably linked to other provisions to achieve the target level of aviation safety. Therefore, in some circumstances a combination of provisions about certain matters would be an acceptable means of compliance but if one of a group of provisions was not complied with it would reduce the target level of aviation safety.

******* NOTE:** CASA will provide further guidance regarding these groupings of provisions well in advance of the commencement of Parts 121 and 135.

**GM 135.020 Definitions for Part 135**

The following definitions are found in Part 1 of the draft CASR dictionary accompanying this public consultation:

- Australian air transport operation
- maximum operational passenger seat configuration (MOPSC)
- maximum take-off weight

The following definitions currently contained in reg 135.020 of CASR are likely to move to the main CASR dictionary post consultation:

- journey log
- operational flight plan.

Definitions that are specified in one specific Part of CASR, for example Part 135, only apply to that CASR Part and do not have wider applicability.

A draft CASR dictionary has been provided with the public consultation of Part 135 during July / August 2018.

**GM 135.025 Definition of suitable forced landing area for aeroplane flights**

This regulation defines the term “suitable forced landing area”.

Different definitions apply to areas of land and water. The over-land definitions is applicable to all aeroplanes whereas the overwater definition is only applicable to prescribed single engine aeroplanes (formerly called ASETPA) or aeroplanes with a TC or STC for landing on water.

Notably, there are a number of conditions applicable if an area of water is to be a suitable forced landing area. These are:

a. the aeroplane must be able to ditch in the area of water with a reasonable expectation that there would be no injuries to persons in the aeroplane or on the water; and
b. there must be a reasonable expectation that persons in the aeroplane would survive in the area of water for the time that it would take to rescue the persons; and
c. if the flight is a passenger transport operation or a medical transport operation—the area of water must be:
    i. adjacent to land; or

ii. adjacent to an offshore installation with search and rescue capabilities; or
iii. in a location, set out in the aeroplane operator's exposition, that has search and rescue capabilities.

The first two conditions apply to all air transport operations including cargo transport operations. The third condition(s) only applies to passenger transport operations and medical transport operations. The intent of the third set of conditions is to ensure that the people on board the aircraft will be able to be rescued from the water in a timeframe that enables their survival.

**GM 135.030 Approvals by CASA for Part 135**

- See Part 11 of CASR for other matters relating to approvals.
- Under regulations 11.056, 11.067 and 11.068, CASA may impose conditions on an approval. Regulations 11.070 to 11.075 of CASR set out other conditions of approvals and offences relating to those conditions. Regulation 11.077 of CASR makes it an offence for a person who holds an approval to contravene a condition imposed under those regulations.
- Regulation 201.004 of CASR provides for administrative review of CASA decisions relating to approvals.

**GM 135.035 Issue of Manual of Standards for Part 135**

The Part 135 Manual of Standards (MOS) supports Part 135 of CASR by providing detailed technical content. Manuals of Standards are legislative instruments and are subject to registration and disallowance under the *Legislative Instruments Act 2003*. Part 11 of CASR sets out procedural requirements for the making of and amendments to a MOS.

# 4 Subpart 135.C—General

## 4.1 Division 135.C.1—Permitted categories

### GM 135.040 Permitted categories of aeroplanes

No further explanation beyond the regulatory wording necessary.

## 4.2 Division 135.C.2—Operational documents

### GM 135.045 Compliance with flight manual

The operator is required to ensure under this regulation that the aeroplane is operated in accordance with all the requirements and limitations set out in the flight manual.

Note: The pilot in command of an aeroplane must adhere to the content of an aeroplane flight manual as required by regulation 91.100 of the CASR (Authority and responsibilities of pilot in command). This regulation as publicly consulted in March / April 2018 did not contain an ability for the alleviation provided for the operator in this regulation. Reg 91.100 of CASR will be amended to ensure that the PIC is permitted to comply with alleviations obtained by the operator in accordance with this regulation.

Reference to an aeroplane flight manual includes reference to an aeroplane flight manual, a flight crew operation manual, a pilot operations handbook, or another document that contains operating limits and requirements for safe operation of the aeroplane. Refer to the definition of “flight manual” at clause 37 of part 2 of the CASR dictionary.

There may be circumstances where the aeroplane flight manual contains an instruction where certain equipment must be checked in accordance with a procedure or limitation, and the operator considers the requirement impractical or inappropriate. Normally, CASA cannot give any concession to a limitation or procedure that is set out in the aeroplane flight manual.

Where an operator wishes to deviate from a flight manual procedure or limitation the responsibility is on the operator to seek a variance from the manufacturer of the aeroplane. The manufacturer’s confirmation of the variance and any alternative instructions should be included in the operator’s exposition and the flight manual.

Should it become apparent that there is a conflict between the flight manual or an instruction in the operator’s exposition, the flight manual must take precedence.

### GM 135.050 Operator to have minimum equipment list for certain flights

Where an aircraft has a master minimum equipment list (MMEL), this regulation requires the operator to have a minimum equipment list (MEL) for international IFR or VFR flights and domestic IFR flights. The MEL should always remain with the aeroplane and be carried on the flight so that it can be accessed by the flight crew.

The MEL should consider all items specified by the aeroplane manufacturer and include all operational requirements relevant to the AOC holder’s operations.

Note: This regulation does not prescribe matters pertaining to the content or development of the MEL. Subpart 91.Y of CASR prescribes requirements for the development, approval and variation of a minimum equipment list.

**GM 135.055 Compliance with exposition**

This regulation applies to any person (not only flight crew) that has a requirement detailed in the operator's exposition that relates to the safe operation of an aeroplane and its passengers. It is a requirement for that person to follow the instructions and limitations described in the exposition.

Details of what to include in an exposition can be found in Subpart 119.H of CASR and its associated AMC/GM.

Regulation 91.100—*Authority and responsibilities of pilot in command* details the regulatory obligations as they apply to the pilot in command.

**GM 135.060 Availability of checklists**

An aeroplane checklist relevant to the flight and covering normal, abnormal and emergency procedures must be made available to flight crew before a crew member begins to carry out a duty for a flight.

## 4.3 Division 135.C.3—Flight related documents

**GM 135.063 Electronic documents**

No further explanation beyond the regulatory wording necessary.

**GM 135.065 Availability of parts of exposition**

The exposition includes the company operations manual. This regulation requires that relevant sections that provide instructions to a crew member to be available to the crew member before the flight.

Full exposition requirements can be found in Subpart 119.H of CASR.

**AMC 135.070 Carriage of documents**

Flight crew members required to advise CASA of license related matters should email clarc@casa.gov.au. The email should contain ARN, full name, date of birth and a brief description of the situation.

For this regulation and for flights within Australian territory, the carriage of an electronic copy of the flight crew's medical certificate and flight crew licence will suffice, provided the flight crew can produce a document that includes a photograph of the holder showing the holder's full face and his or her head and shoulders:

a. that was issued within the previous 10 years by the government, or a government authority, of:
   i. the commonwealth or a State or Territory, or
   ii. a foreign country, or a state or province (however described) of a foreign country
b. that has not expired or been cancelled.

**GM 135.070 Carriage of documents**

The documents required to be carried for all flights (except where reg 135.075 of CASR applies) are contained in the Part 135 Manual of Standards.

- See subpart 42.C of CASR for flight technical log requirements. See division 9 of part 4A of CAR for information regarding maintenance releases.
- See regulation 92.025 of CASR for documentation requirements for dangerous goods.
- See regulation 61.340 of CASR for the requirements for flight crew to produce their flight crew license, medical certificate and additional photographic identification of a certain type.

**Guidance on the specific documents is shown in Table 1 of GM 135.070 / 135.075 / 135.080 below.GM 135.075 Availability or carriage of documents for certain flights.**

The intent of this regulation is to provide an alleviation for certain flights remaining in close proximity to the departure aerodrome to not have to carry the full suite of documents required by reg 135.070 of CASR.

Guidance on the specific documents is shown in Table 1 of GM 135.070 / 135.075 / 135.080 below.

**GM 135.080 Carriage of documents for international flights**

International flights require additional documentation. The documents required to be carried for international flights are contained in the Part 135 Manual of Standards.

Guidance on the specific documents is shown in Table 1 of GM 135.070 / 135.075 / 135.080 below.

**GM 135.070 and 135.075 and 135.080**

A summary of documents prescribed by regulations 135.070, 135.075 and 135.080 is shown in Table 1 below.

| Type of operation | Document carriage requirements | Documents |
|---|---|---|
| All flights | Carried on board | • flight crew licence and medical certificate<br>• aeroplane flight manual<br>• aeroplane's flight technical log or maintenance release<br>• aeroplane 's minimum equipment list (if required – GM 135.050)<br>• operational flight plan (if required – GM 135.150)<br>• journey log (see GM 135.135) for the flight<br>• authorised aeronautical information (see definition) for the flight<br>• if the aeroplane is carrying passengers—a copy of the passenger list (GM 135.140) for the flight<br>Note: If the aeroplane is carrying dangerous goods – refer to Part 92 of CASR for requirements. |
| Day VFR operations staying within 50nm of departure | Carried on board or available to PIC immediately before flight | • flight notification in accordance with Part 91 of CASR<br>Note: Information on the requirements of flight notifications and flight notes can be found in regulation 91.325 of the CASR.<br>• weight and balance documents for the flight (see GM 135.495)<br>• NOTAMs and AIS briefing documents for the flight<br>• authorised weather forecasts for:<br>- the planned route of the flight<br>- the destination alternate aerodrome, when one is required<br>• if there is a person on board who may require special consideration during the flight or during an evacuation of the aeroplane—a statement identifying the person and the special consideration<br>• forms to comply with company reporting requirements under the safety management system<br>• the operating instructions for fitted computerised navigation equipment<br>• documents required by any foreign country within which the flight will be conducted |
| IFR<br><br>NVFR<br><br>Day VFR operations greater than 50nm from departure | Carried on board | |
| International flights | Carried on board | • the aeroplane's certificate of airworthiness and certificate of registration<br>• if the aeroplane's radio station licence is an *apparatus* licence issued under the Radiocommunications Act 1992 for the radiocommunications equipment on board the aeroplane—the licence<br>• if the aeroplane's radio station licence is a *class* licence issued under the Radiocommunications Act 1992 for the radiocommunications equipment on board the aeroplane— a certified true copy of the licence<br>• the manifests for any cargo being carried<br>• a certified true copy of the operator's Australian air transport AOC<br>• a copy of the operations specifications issued to the operator in relation to the operator's Australian air transport AOC |

**Table 1 – summary of carriage of documents requirements**

**AMC 135.085 Keeping and updating documents etc.**

Certain documents must be left at the point of departure for a flight, including each flight of a multi sector journey. Procedures should allow flight crew to leave a copy of the document with a company staff member or a member of aerodrome staff. When conducting operations from an un-manned aerodrome, the document should be deposited in a secure location. The location should be secured in a way that will preclude access by the public.

If leaving a required document at an aerodrome is not practical, updates to documents should be provided to a company base by alternative means such as by telephone or email prior to departure. If the document will be relayed through an intermediate contact, company procedures must describe who the contact may be. Procedures must ensure the information is not accessible by members of the public.

**GM 135.085 Keeping and updating documents etc.**

The intent of this regulation is for operators to ensure that the documents mentioned in the Part 135 Manual of Standards are accessible to a person on the ground, while recognising that multi-sector flights in which an aircraft is away from a base may involve the carriage of passengers and cargo not on the original documents. In these situations, operators will need to have a procedure for crew to update the information by other means, such as telephone, company radio or email.

For Subregulation (1) (b) procedures need to be included about how and when this information may be passed to another person.

Although this information forms the normal part or record keeping requirements which is detailed in Part 119 of CASR, this requirement is to provide the most recent information for search and rescue purposes.

## 4.4 Division 135.C.4—Reporting and recording defects and incidents etc.

**GM 135.090 Procedures for reporting and recording defects etc.**

The requirement is for operators to have procedures in their exposition for the pilot in command to fulfil their responsibilities regarding the recording of defects and exceedances of operating limits in the flight technical log or maintenance release (as applicable).

Note: CASA has not determined the continuing airworthiness requirements for all Part 121 aircraft (this project is to be undertaken in 2019). Therefore, for an aircraft to whom Part 42 currently applies, the relevant regulation for the PIC is reg 42.1075 of CASR and for aircraft to whom Part 42 does not apply, the relevant regulation for the PIC is reg 50 of CAR.

**GM 135.095 Reporting and recording incidents**

The operator's Safety Management System (SMS) should include procedures for reporting incidents which, whether inside or outside the requirements for ATSB reporting, may have the

potential to be or become a hazard to safety of the aircraft, other people or property.

See also reg 91.705 of CASR for the responsibilities of the pilot in command to report hazards to aviation.

## 4.5 Division 135.C.5—Search and rescue services and emergency and survival equipment

**GM 135.100 Information about search and rescue service**

This regulation places a responsibility on an aeroplane operator to provide pilots with information about search and rescue services relevant to a proposed flight. This information must be readily accessible to the flight crew.

Within Australia, the requirement can be met by the pilot having ready access to the En-Route Supplement Australia (ERSA) in the cockpit. Outside Australian airspace, the requirement can be met by the pilot having ready access to a copy of the relevant ERSA supplement or other relevant data contained in the company exposition, either in the form of the exposition itself or an extract from it. Whichever document is used, it must be readily available to the pilot during flight and may be in electronic form.

**GM 135.105 Information about emergency and survival equipment**

This rule places the obligation on the operator to have, at minimum, information about the items listed in the Part 135 Manual of Standards available for communication to the rescue coordination centre.

Contact telephone numbers for the rescue coordination centre can be found in AIP-GEN Search and Rescue. The information should be held at a designated place, familiar to relevant staff, until the completion of the flight. Additional Part 135 requirements for the carriage and use of life jackets, life rafts and first-aid kits are set-out under Subpart K of the regulations.

## 4.6 Division 135.C.6—Miscellaneous requirements

**GM 135.110 Crew activities necessary for safe operation**

This is the “sterile cockpit” rule but the applicability extends to all crew members. It is not intended that this regulation prohibit the operator from determining what duties are necessary to be conducted during these phases of flight. The matters determined by the operator to be necessary during these phases of flight will be assessed by CASA as part of the assessment of an operator exposition during application for an AOC.

Procedures should emphasise the objectives and importance of the sterile cockpit. These procedures should also emphasise that, during periods of time when the sterile cockpit procedures are applied, other crew members should speak to the flight crew or enter the cockpit

only in cases related to safety or security matters. In such cases, information should be timely and accurate.

When sterile cockpit procedures are applied, flight crew members are focused on their essential operational activities without being disturbed by non-safety related matters.

Examples of activities that should not be performed are:

- radio calls concerning passenger connections, fuel loads, catering, etc.
- non-critical paperwork
- weight and balance corrections and performance calculations, unless required for safety reasons.

Other crew should use their professional judgment to determine whether the situation is related to safety or security matters and whether to speak to the flight crew. Situations requiring information to the flight crew may include:

- any outbreak of fire inside the cabin or in an engine
- a burning smell in the cabin or presence of smoke inside or outside
- fuel or fluid leakage
- localised extreme cabin temperature changes
- evidence of airframe icing
- cabin/galley equipment or furniture malfunction/breakage posing a hazard to the occupants
- suspicious object
- disruptive passenger
- security threat
- abnormal vibration or noise
- medical emergency
- general drop-down of the oxygen masks in the cabin
- any other condition deemed relevant by other crew member.

Sterile cockpit procedures should ensure that:

- flight crew activities are restricted to essential operational activities
- other crew communications to flight crew or entry into the cockpit are restricted to safety or security matters.

The regulation does not prescribe any altitude limits for when the initial climb phase would end or where the approach phase of flight begins. This is left to the operator to determine. This could vary between operators and aeroplane types. Examples of the extent of sterile cockpit rules include the following:

- from the beginning of flight until reaching the transition altitude following take-off
- from passing the transition level until the end of the flight
- from the beginning of flight until reaching a relevant lowest safe altitude (LSALT) for the flight
- from passing the relevant LSALT until the end of the flight

- from the beginning of flight until reaching the final point of an instrument departure procedure
- from the first point of an instrument arrival until the end of the flight

**GM 135.115 Competence of ground support personnel**

Operators may require their ground support personnel to carry out duties of a position of support to the operations of an aeroplane. These persons must be trained in the duty and be assessed as competent to carry out that duty before commencing such duties. The method by which the operator satisfies itself as to the training and competence of ground support personnel should be included in the operator's exposition.

Refer to the definition of "ground support personnel" in the CASR dictionary.

**GM 135.120 Flight crew seat authorisation and briefing**

This regulation sets out the persons permitted to occupy a flight crew seat during the flight. Prior to occupying the flight crew seat, a person permitted to occupy a flight crew seat must be briefed on the safety equipment and emergency procedures relevant for the seat they are to occupy.

Prior to assigning a passenger to a flight crew seat, the PIC must be satisfied that the person occupying the seat will not cause a distraction for flight crew and will not interfere with the operation of the aeroplane.

Matters that should be included in the safety brief for passengers occupying flight crew seat include the importance of remaining clear of aeroplane controls.

# 5 Subpart 135.D—Operational procedures

## 5.1 Division 135.D.1—Operational procedures

**GM 135.125 Operational control**

Operational control is the exercise of authority over the initiation, continuation, diversion or termination of a flight in the interest of safety of the aircraft and the regularity and efficiency of the flight.

This regulation requires the operator to provide in the exposition a description of the way operational control will be exercised on behalf of the operator. The exposition must also provide a description of the responsibilities of each person who may exercise operational control.

The intent of this regulation is to ensure that the operator understands that it is their responsibility to ensure operational control is exercised over each flight and who (including the pilot-in-command of the flight) undertakes the operational control for a flight.

To support the pilot in their responsibilities, operators may need to provide resources to assist the pilot. Support systems may also be required for the exercise of operational control that may include but not be limited to provision for access to weather forecasts and reports, Notices to Airmen (NOTAMs) and aircraft performance, loading and flight planning information.

The pilot-in-command will assume responsibility for the safety of the aeroplane from the moment of the start of a flight until the moment the aeroplane comes to the end of the flight and is expected to discharge their responsibility in accordance with procedures in the exposition. However, this does not alter the ultimate responsibility and authority of the pilot-in-command for the safety of the flight under Part 91.

**GM 135.127 Flight distance limitations**

This regulation provides the ability for the Part 135 MOS to prescribe distance limitations for flights. It is broadly intended by CASA for these MOS provisions to outline the EDTO requirements applicable to certain Part 135 aeroplanes.

The current MOS provisions are preliminary and are awaiting the finalisation of the Part 121 MOS which is expected later in 2018 or early 2019. If changes occur to the currently drafted Part 135 MOS provisions, these will be publicly consulted, ideally at the same time as the public consultation of the legally drafted Part 121 MOS.

## 5.2 Division 135.D.2—Flight preparation

**GM 135.130 Flight planning requirements**

The operator must include procedures in their exposition to comply with the requirements of:

- reg 91.313 of CASR in relation to the flight preparation (weather assessments)

requirements.

- reg 91.314 of CASR in relation to the flight preparation (alternate assessments) requirements.

**AMC 135.135 Journey logs**

A journey log may be combined with other operational documents such as an operational flight plan.

**GM 135.135 Journey logs**

Due to the urgent nature of some medical transport flights, it is not necessary for the journey log to be completed before a flight begins. On those occasions it is acceptable to begin the flight before completing a flight log. At all times the PIC must be satisfied the safety of the flight will not be compromised and the journey log must be completed as soon as practicable after the flight ends.

**AMC 135.140 Passenger list**

The requirement to prepare a formal passenger list is met when an operator makes a record of passengers carried by another means such as a computerised record system or through combining the document with another document (journey log is one example). The operator must ensure updates to any such record system are made prior to the aeroplane's departure.

Acceptable methods of updating would be for the flight crew to call or message the operator to ensure the passenger list is accurately updated, provided positive confirmation was received by the flight crew that the update had been carried out.

**GM 135.140 Passenger lists**

This regulation does not apply to a medical transport operation or cargo transport operation.

During the conduct of a multi leg journey, a passenger list is required for each leg. In accordance with regulation 135.085 of CASR it is a requirement that a copy of the passenger list be retained or left at the point of departure.

## 5.3 Division 135.D.3—Flight planning

**GM 135.145 Availability of flight planning information**

No further explanation beyond the regulatory wording necessary.

**GM 135.150 Operational flight plans**

Operational flight plans are not required for day VFR flights remaining within 50nm of the

departure aerodrome.

An operational flight log and journey log may be completed as one document. In doing so, requirements of both documents must be met.

The operator shall have procedures that provide guidance for when the pilot in command must have completed the operational flight plan for the flight and the methods in which this may be done. In all cases this shall be done prior to the next flight of the aeroplane.

Waypoints should be selected at regular intervals to provide the flight crew with an accurate assessment of the progress of the flight in relation to time and fuel burn. Where practical the waypoints should not be more than one hour apart (e.g. oceanic flights may have waypoints further apart etc).

## 5.4 Division 135.D.4—Flight rules

**GM 135.155 Flight preparation forms for international flights**

The flight preparation form may be combined with other documents where the operator identifies it is appropriate.

**GM 135.160 Take-off alternate aerodromes**

This regulation is applicable to all multi-engine, IFR passenger transport operations and to some multi-engine, IFR medical transport operations. The intent of this regulation is to allow an aeroplane to take-off only if weather conditions will allow the aeroplane to land within one hour of take-off.

It is not applicable to medical transport operations that are carrying fuel for the planned destination (and planned destination alternate if one is necessary). An example of where a medical transport operation may not be carrying fuel for the planned destination is a circumstance where the flight is only carrying fuel for an intermediate aerodrome with the intent of conducting in-flight re-planning and then proceeding to the planned destination.

When required (per above), take-off alternates must be selected when the flight cannot land back at the departure aerodrome within 1 hour of departure due to weather below landing minima or any other reason.

The take-off alternate must be within 1-hour flight time at the aeroplane one engine inoperative cruise speed and have weather which is not below landing minima. The take-off alternate must be in the operational flight plan.

**GM 135.175 Safe take-off conditions**

It should be noted that the provisions of the Part 91 MOS in relation to minimum weather conditions for take-off for different aeroplanes apply.

**GM 135.180 Alternate aerodrome requirements in certain circumstances**

This regulation provides for the Part 135 MOS to specify additional alternate aerodrome requirements. Currently, these provisions only encompass the extant remote island alternate requirements from CAO 82.0.

**GM 135.185 IFR flights without destination alternate aerodromes**

Despite the accuracy of the authorised weather forecast, the possibility always exists of un-forecast weather conditions affecting a planned destination aerodrome. For this reason, the practise of inflight replanning is important to ensure an aeroplane can land safely at its destination or a suitable alternate aerodrome.

Upon receiving an authorised weather forecast, a PIC should use the updated weather information to conduct an inflight re-planning exercise. Re-planning should address fuel requirements to determine the need for the nomination of a destination alternate aerodrome. The departure aerodrome may be used as a destination alternate aerodrome. At the point of in-flight replanning, fuel on board must meet the requirements of regulation 135.223 of the CASR.

If a forecast is received within 30 minutes of the planned arrival time at a destination aerodrome and that updated forecast details weather below alternate minima but above landing minima, the pilot in command may continue to the destination aerodrome. Similarly, if an updated forecast is received at any time during the flight that reduces the weather below landing minima, the pilot in command may continue to the destination aerodrome if the aircraft carries fuel sufficient to hold for 30 minutes after the time the weather is forecast to improve above landing minima.

**GM 135.190 Safe approach and landing conditions**

It should be noted that the provisions of the Part 91 MOS in relation to minimum weather conditions for take-off for different aeroplanes apply.

**GM 135.195 Approach ban for IFR flights**

For the purposes of complying with this regulation, prior to reaching 1,000 ft above the aerodrome elevation, the pilot in command should assess the visibility at the aerodrome to be at or above landing minima for the runway to continue the approach to the minima. If the visibility deteriorates below the landing minima for the runway after passing 1,000 ft, the pilot in command may continue the approach to the decision point.

## 5.5 Division 135.D.5—Aerodromes

**GM 135.200 Suitable places for take-off and landing**

Information on determining the suitability of an aerodrome can be found in CAAP 92A-1(0)

*Guidelines on aerodromes intended for small aeroplanes conducting RPT operations*. This CAAP will be updated well in advance of the commencement of Part 135 of CASR.

**AMC 135.205 Procedures to determine information about aerodromes**

Aerodrome information for certified and registered aerodromes is published in the En-Route Supplement Australia (ERSA) or Jeppesen Airways Manual. If operations include the use of an uncertified or unregistered aerodrome, operators should establish an Aerodrome and Route guide based on the checklist shown in ERSA section GEN-CON. Information on the development of an Aerodrome and Route Manual can be found in CAAP 215-1(2) *Guide to the Preparation of Operations Manuals.* This CAAP will be updated well in advance of the commencement of Part 135 of CASR.

Operators should develop special departure procedures for use at an aerodrome where obstacle clearance is a concern, either for normal operations or for One Engine Inoperative (OEI) operations. Information on the provision of obstacle information for take-off flight planning purposes can be found in CAAP 89W-1(0) *Guidelines on provision of obstacle information for take-off flight planning purposes*.

Procedures should be developed directing the PIC to address the ERSA, Jeppesen Airways Manual, an Aerodrome and Route Manual and other resources necessary to obtain pertinent information during flight planning activities. The procedure must direct the PIC to address aerodrome physical characteristics and any special departure procedures created by the operator.

**GM 135.210 Procedures for safety at aerodromes**

The safety of passengers is paramount. It must be remembered that they may be unfamiliar with the airport environment and must be provided with clear and easy to follow directions. All passengers whilst airside must be marshalled and supervised. Many foreign visitors will simply not recognise local signs or markings unless they are clear and unambiguous.

To ensure airside passenger movements are properly controlled, procedures for the escort of passengers on the aerodrome should be included in an operator's exposition. The operator should also develop procedures to ensure aeroplanes are parked in a place that avoids passengers being exposed to hazardous conditions.

Hazardous conditions that may need to be considered include other aircraft movements near ground service or fuelling vehicles. Night operations at remote aerodromes without adequate apron lighting may also present hazards that should be considered.

For operators of aircraft permitted to refuel with passengers on board, the exposition should detail the method of supervision of the passengers while the aeroplane is being refuelled.

Operations at large airports can often be associated with large aircraft. Jet blast, rotorwash, noise and airside servicing equipment require consideration.

Passengers transiting to or from an aircraft can be distracted by mobile phone or other PED use. This reduces situation awareness, increases unsafe behaviour, and puts the passenger at

greater risk of accidents.

Operators should include procedures, facilities or safety devices for the guidance and protection of passengers, for the use of PEDs while transiting to and from the aircraft. In circumstances where the operator is not confident of the level of protection provided by procedures, facilities and safety devices they should consider restricting the use of PEDs.

## 5.6 Division 135.D.6—Fuel requirements

**GM 135.215 Fuel procedures**

No further explanation beyond the regulatory wording necessary.

**GM 135.220 Oil requirements**

No further explanation beyond the regulatory wording necessary.

**GM 135.223 Fuel requirements**

During air transport operations using smaller aeroplanes, this division of CASR takes precedence over regulation 91.320 of CASR.

Information on operational fuel requirements can be found in the not yet in force CAAP 234-1(2) *Guidelines for Aircraft Fuel Requirements* available at https://www.casa.gov.au/aircraft/landing-page/fuel. This CAAP will be updated well in advance of the commencement of Part 135 of CASR.

## 5.7 Division 135.D.7—Passenger transport and medical transport

**GM 135.240 Application of Division 135.D.7**

For the definition of a passenger transport operation or medical transport operation, refer to the draft CASR dictionary provided as part of this public consultation.

The key aspect to this Division of Part 135 of CASR is that the regulations contained within this Division to not apply to cargo transport operation.

**GM 135.245 IFR flights**

Single engine aircraft that are not prescribed single engine aircraft (formerly ASEPTA) are not permitted to conduct passenger or medical transport operations under the IFR.

**GM 135.250 VFR flights at night**

No aircraft greater than 5 700kg is permitted to conduct passenger or medical transport operations under the VFR by night. This does not apply to cargo transport operations.

Single engine aircraft that are not prescribed single engine aircraft (PSEA – formerly ASEPTA)

are not permitted to conduct passenger or medical transport operations under the VFR by night. This does not apply to cargo transport operations.

Any passenger or medical transport operation conducted under the VFR by night must have a member of the flight crew qualified to conduct IFR operations. This is an added safety measure for these operations. This does not apply to cargo transport operations.

**GM 135.255 Prescribed single-engine aeroplanes (PSEA)**

Overview

The new regulations, similar to the current rules, do not allow every single engine aeroplane to conduct air transport operations during operations under the IFR or night VFR.

To conduct these operations (in a single engine aeroplane) the operator must use what is currently called an approved single engine turbine powered aircraft (ASETPA) and what in the new regulations is called a prescribed single engine aircraft (PSEA). The name has been changed as the legal mechanism by which the aeroplane becomes one of these aeroplanes has changed. It was an approval under the old rules and in the new rules the aeroplane / engine combination will be “prescribed”.

For Day VFR single engine aeroplanes that are not PSEA may be used.

Broad requirements

In general, for an aeroplane to become a PSEA the following criteria must be met:

- The aeroplane needs to meet the criteria outlined in CAO 100.5.
- The operator also needs to have an enhanced level of airworthiness control to ensure the continuing reliability of the aeroplane to the stated standard.
- The operator must ensure the specific training requirements for the flight crew are met.

All these supporting factors are what is necessary to ensure that the level of aviation safety for air transport operations remains at an acceptable level.

Refer to section 16 of the Air Operator’s Certificate Handbook (AOCH) for additional details about the current ASETPA process and the enhanced level of airworthiness control. As stated elsewhere in this public consultation, the future continuing airworthiness requirements for existing charter operators have not yet been examined by CASA and it is planned for this to be done in consultation with industry in 2019. However, it is not envisaged that the broad outlines of the process will significantly change with the introduction of the new rules. The relevant volume of the handbook is available from CASA’s website at:

https://www.casa.gov.au/standard-page/handbook-vol-2-flying-operations.

What is similar to current ASETPA operations?

*Procedures in exposition (operations manual)*

The current process in the AOCH essentially informs operators that their ASETPA approvals will be conditional on their operations manual containing procedures about a range of matters.

Similar to this, section 16 to 24 of the Part 135.MOS require operators to have procedures in their exposition to cover matters relating to the operation of PSEA. Matters described (not an exhaustive list) include engine malfunction or failure, decision speed, forced landing, engine ignition and performance and suitable route and places which meet the requirements of 135.025 as suitable forced landing areas.

Notably, aerodromes and suitable forced landing areas along the route are required to be programmed into the aeroplane's area navigation system before flight.

*Risk period (old terminology "ASETPA safety distance")*

For a PSEA operating on a fixed schedule, or operating over water, to or from an aerodrome, the maximum time the aeroplane may be outside the glide range of a suitable forced landing area is *15 minutes* at the normal cruise speed plus the time taken for a glide to 1 000 ft above ground level.

Effectively, at no greater than 15 minute intervals, the aeroplane must return within glide range of an suitable forced landing area. In Europe, operators are required to have a total time for the combined period of risk equal to no greater than 15 minutes for the entirety of a flight. In recognition of Australia's more dispersed aerodrome infrastructure and the nature of terrain within Australia, CASA has not proposed a similar rule.

**NOTE:** CASA is interested in industry feedback on whether or not a "total risk period" for an individual flight should be applied and if so, what sort of total time is appropriate for Australian conditions.

In the current rules, this is referred to as the "ASETPA safety distance" and is a rule for RPT ASETPA operations. This distance is defined the same as the risk period described above.

The term "risk period" is used because despite the much higher reliability of these aeroplanes, the failure of their single engine remains a risk that must be mitigated by procedures, airworthiness and flight crew training. Therefore, any period of time spent "outside" the glide range of a suitable forced landing area remains a risk that needs to be controlled to achieve an acceptable level of safety for these air transport operations.

In general, it is preferable for the operator to plan the route of a flight such that the aeroplane could, in the event of an engine failure, be within glide range of a suitable forced landing area (see reg 135.025 of CASR for definition of this term).

However, the Part 135 of CASR rules allow operators of PSEA on fixed schedules and over water routes to utilise a risk period.

**NOTE:** CASA is still considering the applicability of the risk period for over land operations. In particular – whether this risk period should apply to:

**ALL** over land operations at night or in IMC, or

**Just** fixed schedule operations at night or in IMC.

Feedback on this matter is welcome in this public consultation.

If it was to remain "fixed schedule" – how would CASA determine what operations constituted "fixed schedules"?

During flight planning, operators should utilise all reasonably practical information to establish the location and characteristics of suitable forced landing areas and that they meet the risk period criteria for the flight (if any). Methods to establish information about suitable forced

landing areas may include aerodrome information from ERSA (or equivalent), country airstrip guides, Google Earth etc.

These provisions are related to the definition in reg 135.025 of CASR of "suitable forced landing area" which, for a PSEA, can include certain areas of water under strict conditions which are outlined in the Part 135 MOS as described above.

**NOTE**: CASA is still considering whether including certain areas of water as described in 133.025 is reasonable from a PSEA operational perspective. Feedback on this is welcome in this public consultation.

What is different to current ASETPA operations?

*Distance from a suitable forced landing area*

In the AOCH a "suitable forced landing area" is defined as an aerodrome that meets the requirements of CAAP 92-1 or 92A-1.

In the proposed Part 135 of CASR rules, the definition of "suitable forced landing area" (see reg 135.025 of CASR) has been relaxed from the current definition for RPT ASETPA operations in the AOCH. This relaxation recognises that the merging of charter and RPT into air transport requires current charter ASEPTA operators to remain within the distance from a suitable forced landing area currently referred to as the RPT "ASEPTA safety distance".

**GM 135.260 Simulation of abnormal situations**

During air transport operations using small aeroplanes, regulation 135.260 of the CASR takes precedence over Division 91.D.7.2 of the CASR. During passenger transport and medical transport operations abnormal situations must not be simulated.

**AMC 135.265 Carriage of restricted persons**

Carriage of restricted persons includes the carriage of deportees and other persons in custody. Procedures for carrying a restricted person on an aeroplane should consider the following:

- procedures for dealing with notice from the Immigration Department that the carriage of a restricted person is required.
- the aeroplane type and cabin configuration;
- the total number of passengers carried on board
- security arrangements for restricted person and escort
- communication of requirements to points of arrival
- limits on number of restricted persons to be carried on a flight
- provision of information to aeroplane crew
- actions to be taken by crew in event of in-flight incident involving restricted persons

Development of procedures should consider the requirements of the *Aviation Transport Security Regulations 2005.*

**AMC 135.270 Carry-on baggage**

When detailing the procedures for the safe stowage of carry-on baggage, the operator shall consider the following requirements:

- when the baggage is stowed, it must be securely stowed in a place intended for the stowage of baggage
- if the baggage contains dangerous goods, then the baggage must be stowed in accordance with Part 92 of CASR
- if a weight limitation is placarded on, or adjacent to, a stowage place, then the weight of the baggage placed in, or adjacent to, the stowage place must be within the weight limitation
- the baggage must be stowed where it cannot:
  - obstruct access to emergency equipment
  - hinder the evacuation of the aeroplane in an emergency
  - cause injury to a person on board the aeroplane by falling or other movement
- for baggage stowed in a locker, the locker's door must be able to be closed securely
- for baggage stowed under a seat:
  - the seat must have below it a means (e.g. bar) to restrain forwards and sideways movement of the baggage
  - the baggage must be of a size that the means stated above can restrain.

**GM 135.270 Carry-on baggage**

OVERSIZED OR ODD-SIZED ITEMS

When incorporating the procedures for the carriage of oversized or odd-sized items, the operator should consider the safety of the flight and passengers in general and whether the carriage has an impact on cabin safety.

The operator should consider, but not limited to, the following when incorporating the carriage of oversized or odd-sized items in their carry-on baggage policy:

- The item should be contained in a case or covered to avoid injury to passengers. The size, weight, packaging and dimensions of the item should be taken into consideration
- The item should be properly secured by the aircraft seat belt, safety belts or other tie down mechanisms strong and sturdy enough to eliminate the possibility of shifting in any direction under all flight and ground conditions such as turbulence, rapid descent etc
- The item should not be secured at the row of seats adjacent to or use of any required emergency exit or regular exit, or of the aisle.
- The item should also not obstruct passenger movement to and from the aisle
- The item should also not be stowed in such a manner that could obstruct access to any emergency equipment
- The weight of the item including the case or covering must not exceed the load limit of the seat or any applicable weight restriction for the aircraft. The item should not impose any load on the seats or the floor structure that exceeds the load limitation
- The operator should specify the maximum allowable numbers of such carriage taking into consideration the cabin configuration of each aeroplane type.

The operator should provide information to their passengers on the availability and conditions of

such carriage in their carry-on baggage policy.

The operator should ensure appropriate training is provided to the relevant personnel including airport staff (baggage check in staff and gate staff) and crew members in the handling of oversized or odd-sized items.

**GM 135.275 Obstruction of emergency exits**

No further explanation beyond the regulatory wording necessary.

Note the ability for medical transport operations to obstruct emergency exits under certain circumstances stated in the regulation.

**AMC 135.280 Passengers in emergency exit row seats**

The following categories of passengers are among those who should not be allocated to, or directed to, seats that permit direct access to emergency exits (i.e. they are not suitable persons):

a. passengers suffering from obvious physical or mental disability to the extent that they would have difficulty in moving quickly if asked to do so
b. passengers who are either substantially blind or substantially deaf to the extent that they might not readily assimilate printed or verbal instructions given
c. passengers who because of age or sickness are so frail that they have difficulty in moving quickly
d. passengers who are so obese that they would have difficulty in moving quickly or reaching and passing through the adjacent emergency exit
e. children (whether accompanied or not) and infants
f. restricted persons
g. passengers with animals.

*Direct access* means a seat from which a passenger can proceed directly to the exit without entering an aisle or passing around an obstruction.

**GM 135.280 Passengers in seats adjacent to emergency exits**

If procedures cannot be reasonably implemented at the time of passenger ‘check-in’, the operator should establish an alternative procedure which ensures that the correct seat allocations will, in due course, be made, preferably before the passengers have boarded the aeroplane.

Procedures should be established to allocate duties to an appropriate company staff member (flight crew, other crew, ground support personnel) in assessing the suitability of emergency exit row passengers.

For the assessment of the suitability of a passenger in an emergency exit row, the operator may decide that the required use of an extension seat belt would exclude the passenger from the suitability to sit in an emergency exit row.

Some questions that might assist operators to establish their criteria for suitable persons, in

conjunction with their safety management systems (SMS), are:

- Do the suitable person criteria take the type and weight of the exit/exit door into account?
- What measures are in place to ensure that a suitable person does not become unsuitable for emergency exit row seating (such as, but not limited to, a passenger who does not fit the suitable person criteria swapping seats and sitting in the emergency exit row) during flight?
- How does a continuous risk assessment process consider the choice of passengers seated in exit rows?
- How does a continuous risk assessment process analyse situations that might arise in an emergency?
- What are the organisation's processes and training for cabin crew and ground staff to re-seat ineligible exit row passengers before flight/during flight/for landing?

Are data logged and actions taken to mitigate the above situations, to prevent them recurring? How is this done?

**AMC 135.285 Carriage of persons with reduced mobility**

The extent to which passengers may require special assistance will vary considerably according to the individual's needs, as well as the aircraft type and configuration.

Where practicable, consideration should be given to pre-boarding passengers (and their assistant if they are accompanied by one). Pre-boarding will allow the passenger with reduced mobility to settle into their seat, put away cabin baggage and receive a predeparture briefing.

Whilst a general safety briefing is given to all passengers prior to departure which points out the location of the emergency exits and provides information on using life jackets, brace positions and oxygen masks, dependent on the needs of the passenger, an individual briefing should be provided to the person with the disability and their assistant.

Ideally the person providing the briefing should be one of the crew designated to assist the person in an emergency evacuation. Tools such as braille books and safety demonstration equipment may be used to help deliver the individual briefing.

The briefing should include:

- which emergency exit to use and an alternative exit if the first exit is unavailable
- when to move towards the exit in an emergency evacuation
- how best to assist the person in an emergency evacuation.

In the case of a passenger who is responsible for another person on board the aircraft the briefing should also include:

- how to assist that person with donning and securing his or her oxygen mask; and
- how to use that person's personal restraint system, if any, on board the aircraft.

The content of each briefing should be documented in the operator's operations manual. Additionally, the operator's cabin crew training program should address the content and conduct of these briefings.

In addition to the requirement not to seat disabled passengers in emergency exit rows, passengers with reduced mobility need to be seated in a manner which would not hinder or obstruct access to emergency exits generally for all other passengers and crew. Passengers with reduced mobility should be assessed on a case by case basis to determine the best seating allocation, ensuring there is no impact on the safety of the person or others on board.

The operator should review and consider their seating policy for passengers with reduced mobility to ensure that their seating policy complies with the requirements and where applicable ensure the policy is appropriately communicated and trained to the appropriate employees.

### AMC 135.290 Safety briefing cards

The operator of an aeroplane with more than 2 rows of seats (including flight compartment seats) must provide passenger safety briefing cards. The passenger safety briefing card should be designed and located so that the seated passenger will be able to see and have access to the card when it is placed in its normal location. The design of the card should be interesting, uncluttered and attractive so passengers will want to read it. For example, a multi-coloured card that has pictures and drawings will be picked up and read more often than a black and white printed card or a card that contains too much text.

No advertisements or promotional items should be included in the passenger safety briefing card. It should only contain safety-related information. Whenever a specific crew member is reflected on the card or sequence, the figure in the pictogram should clearly reflect a uniformed crew member.

Safety briefing cards primarily complement the instructions of a safety briefing. The contents of the safety briefing card should contain the information that crew must provide to passengers during a safety brief. Detail on the requirements of a passenger safety brief are shown in AMC 135.295.

### AMC 135.295 Safety briefing and instructions

Passenger safety briefings must be given to each passenger on board who has not previously be briefed on the aircraft. Passengers remaining on board an aircraft during a multi sector operation must be given a safety brief prior to the first flight of the operation. Safety briefing in subsequent flights of the journey require a briefing to be given to passengers boarding the aircraft at intermediate stopovers.

Operations that include a stopover of more than four hours are not considered a multi sector operation for the purposes of safety briefing. During such operation passengers must be briefed prior to the first flight following such a stopover.

The nature of medical transport operations makes the provision of a safety briefing impractical. Safety briefings are not required during medical transport operations.

A safety briefing and instructions given to a passenger for the flight of the aeroplane must address the following:

- the rules about smoking, or using e-cigarettes, during the flight
- if the aeroplane's seats are adjustable—how to adjust a seat
- when seat belts must be worn during the flight, and how to use them
- if the aeroplane has a tray table or cot attached to the aeroplane—when the tray table or cot must be in its stowed position
- if an infant or child is carried on the aeroplane—when and how the infant or child must be restrained
- the limitations on the use of portable electronic devices during different stages of the flight
- how, where and when to stow, or otherwise secure, carry-on baggage
- where to find the safety briefing card
- how and when to assume the brace position
- where the emergency exits are and how to use them
- for a passenger seated in a seat adjacent to an emergency exit—what to do if it becomes necessary for passengers to use the exit
- if the aeroplane is fitted with an escape path lighting system—where it is and how to use it to exit the aeroplane
- location and use of oxygen masks, if fitted to the aeroplane
- location and use of survival equipment, including flotation devices and life rafts
- If the safety briefing card sets out different seating configurations for the aeroplane—which configuration is in use for the flight

Passengers with reduced mobility may require unique assistance during an emergency. During a safety briefing, the type of assistance required must be discussed.

If the person receiving the safety briefing and instructions is a passenger with reduced mobility, the safety briefing and instructions must be given in a form appropriate to the passenger or any person accompanying or assisting the passenger during the flight. For a passenger with reduced mobility and any person accompanying or assisting the passenger during the flight—what to do if an emergency evacuation of the aeroplane is necessary

The briefing should be given so that each passenger can clearly hear it and easily see the required demonstration of emergency equipment such as life jackets and oxygen masks (if applicable).

The safety briefing and instructions may be given:

- orally
- by audio presentation
- by audio-visual presentation

or by a combination of the methods mentioned above.

**AMC 135.300 Safety reminders**

Passengers must be given a condensed safety briefing prior to approach and landing. The following points must be covered:

- that seat belts must be securely fastened

- that things that are not stowed must be stowed securely
- to remain seated until further instructions are given after landing
- how to leave, and move away safely from, the aeroplane
- During medical transport operations:
  - The reminder must be given to passengers who do not have the sole attention of a suitable person.

In addition, items prescribed by regulation 135.295 should be included in the brief when considered necessary to ensure safety of passengers in flight and during ground operations.

**AMC 135.305 Additional safety briefings**

During operations the flight crew must ensure situational awareness is maintained. Priority must be given to maintaining control of the aircraft and managing any abnormal or emergency. Once control of the aircraft has been assured, flight crew should address ATC and passengers as necessary.

**GM 135.310 Flights over water for single-engine aeroplanes**

For this regulation, three aeroplane groups are implied. The three groups and their distance limitations are the following:

- Prescribed Single Engine Aeroplanes (PSEA) complying with the requirements of the over water portions of the definition of a suitable forced landing area
  - Beyond 25nm of a suitable forced landing area on land
- PSEA not complying with the requirements of the over water portions of the definition of a suitable forced landing area
  - 25nm from a suitable forced landing area on land.
- Non-PSEA
  - 25nm from a suitable forced landing area on land.

For most operations suitable forced landing areas are on land, however for a PSEA or an aeroplane that has a type certificate or supplemental type certificate for landing on water, a suitable forced landing area may be on water according to the definition shown in regulation 135.025 if it meets the criteria specified in 135.025(3).

Information on aeroplane ditching can be found in CAAP 253-1 *Ditching*.

Note that other Part 135 regulations specify the requirements for carriage of life jackets and life rafts.

## 5.8 Division 135.D.8—Instruments, indicators, equipment and systems

### GM 135.315 Airborne weather radar equipment

Whilst most modern aircraft weather radar manuals are quite detailed in the use of the equipment, this is not always the case and operators shall ensure they have procedures for their flight crew to follow when manipulating the weather radar. Guidance should also be provided on the policy of the operator on severe weather avoidance and any other general use 'tips' that would be useful to the flight crew.

Refer to regulation 135.587 for information regarding operations with an inoperative airborne weather radar.

### AMC 135.320 Aeroplanes fitted with ACAS II

Pilots of transponder-equipped aircraft must ensure their transponder is switched to TA/RA from the point of entering the runway for take-off until exiting the runway following landing. Situations may exist during operations in which an aircraft flight manual requires operation with a mode other than TA/RA selected. In such situations, the flight manual must take precedence.

Flight crew must be conscious of the need to exercise diligence during operations at non-controlled aerodromes. TCAS/ACAS II systems will neither track or display:

- non-transponder-equipped aircraft
- aircraft operating with an inoperable transponder
- aircraft operating with a Mode A transponder

Refer to regulation 135.570 for information regarding operations with an inoperative ACAS II system.

### GM 135.325 Head-up displays, enhanced vision systems and synthetic vision systems

CASA recognises that some operators will have HUD/EVS/SVS equipment and not intend to use it to gain operational credit. Intent of this regulation is to ensure an operator has procedures in place for any equipment that is available for use, regardless of how and when it will be used.

These procedures will mitigate the risk of untrained flight crew using these systems – especially during component failure scenarios.

### AMC 135.330 Checking oxygen and equipment etc

The amount of supplemental oxygen available and serviceability of equipment at flight crew stations should be checked in accordance with the aeroplane flight manual and associated checklists. Pilots of aeroplane that do not have a flight manual should conduct the “PRICE” check on the oxygen equipment. The 'PRICE' check includes the following components:

- PRESSURE - ensure that there is enough oxygen pressure and quantity to complete the flight

- REGULATOR - inspect the oxygen regulator for proper function. If you are using a continuous-flow system, make sure the outlet assembly and plug-in coupling are compatible.
- INDICATOR - most oxygen delivery systems indicate oxygen flow by use of flow indicators. Flow indicators may be located on the regulator or within the oxygen delivery tube. Don the mask and check the flow indicator to assure a steady flow of oxygen.
- CONNECTIONS - ensure that all connections are secured. This includes oxygen lines, plug-in coupling and connection to the aeroplane communication system
- EMERGENCY - have oxygen equipment in the aircraft ready to use for those emergencies that call for oxygen (hypoxia, decompression sickness, smoke and fumes, and rapid decompressions.) This step should include briefing passengers on the location of oxygen and its proper use

Where an aeroplane is fitted with quick don masks the assumption is made that the mask fits the flight crew correctly. The mask should not be removed from its stowage box unless the aeroplane flight manual requires removal.

**AMC 135.335 Supplemental oxygen for unpressurised aeroplanes**

The amount of supplemental oxygen that must be *carried on board* an unpressurised aeroplane is prescribed by regulation 135.620 of the CASR and contained in the Part 135 MOS. Where the time between 10 000 feet and flight level 130 does not exceed 30 minutes, no supplemental oxygen is required to be carried. Where the time between these altitudes exceeds 30 minutes or any time period is spent above flight level 130, supplemental oxygen in the amounts prescribed in the Part 135 MOS must be carried.

Flight crew of an unpressurised aeroplane must *use* supplemental oxygen if operations above 10,000ft exceed a total of 30 minutes per flight. Flight crew must use supplemental oxygen during any operations above Flight Level 130.

The pilot-in-command should be aware that even while operating below the altitudes mentioned above, absolute protection against hypoxia symptoms is not guaranteed, should individual affecting conditions be prevalent.

The responsibility of the pilot-in-command for safety of all persons on board includes the determination of need for supplemental oxygen use. The altitudes mentioned above require oxygen to be available and used in those cases when the pilot-in-command cannot determine the need for supplemental oxygen. However, if the pilot-in-command can make this determination, he/she may elect in the interest of safety to require oxygen use for operations at or below the prescribed altitudes.

**GM 135.340 Supplemental oxygen for pressurised aeroplanes**

The amount of supplemental oxygen that must be carried for on board and aeroplane is prescribed by regulation 135.620 of the CASR and detailed in the Part 135 MOS.

During any operations, the flight crew of pressurised aeroplane must use supplemental oxygen at any time the cabin altitude exceeds 10,000ft

**GM 135.345 Supplemental oxygen for all aeroplanes**

No further explanation beyond the regulatory wording necessary.

**AMC 135.350 Wearing headsets**

To comply with the minimum performance requirements, headsets should match the communication system's characteristics and the flight crew compartment environment.

It is recommended but not mandatory that headset boom microphones should be of the noise cancelling type.

If the intention is to utilise noise cancelling earphones, the operator should ensure that the earphones do not attenuate any aural warnings or sounds necessary for alerting the flight crew on matters related to the safe operation of the aeroplane.

The term 'headset' includes any aviation helmet incorporating headphones and microphone worn by a flight crew member.

Should a headset be removed during flight operations, flight crew must ensure an alternative means of monitoring radio broadcasts is available. A flight deck speaker and hand-held microphone system should be used to ensure communication with ATC and other aircraft is maintained.

**GM 135.355 Using headsets**

No further explanation beyond the regulatory wording necessary.

**GM 135.357 Part 135 Manual of Standards may prescribe requirements relating to use of equipment etc**

No further explanation beyond the regulatory wording necessary.

## 5.9 Division 135.D.9—Miscellaneous

**AMC 135.360 Procedures relating to ice**

Carburettor icing is not confined to cold weather and will occur in warm weather if the humidity is high enough, especially when the throttle butterfly is only partially open as it is at low power settings. Induction system icing is more likely at low power setting such as those used during descent, holding or on the approach to a landing.

An operator's operations manual must include procedures relating to the use of carburettor heat during all phases of operations. Procedures should focus on prevention, recognition and remedial action. The operating procedures should be based on the flight manual for individual aeroplane models.

**GM 135.360 Procedures relating to ice**

Test data indicates that ice, snow, or frost formations having a thickness and surface roughness similar to medium or course sandpaper on the leading edge and upper surfaces of a wing can reduce wing lift by as much as 30 percent and increase drag by 40 percent.

In Australia, ground icing is not often experienced however it is not uncommon for ice, in the form of hoar frost, to affect aircraft parked overnight in temperatures below zero degrees.

Even in "above freezing" weather conditions, for aeroplanes which have just landed after descending from high altitude or have refuelled with very cold fuel, the wings may be colder than 0°C due to fuel in the wing tanks being well below zero. This cold soak effect may cause ice to form on the wing surfaces.

The only known method for positively ascertaining that an aircraft is clean prior to take-off is by close inspection. Personnel must understand and have a thorough knowledge of:

- the adverse effects that ice, frost or snow on the critical surfaces and airframe can have on aeroplane performance and handling qualities
- the various procedures that are available for aeroplane ground de-icing/anti-icing
- the capabilities and limitations of these procedures
- the variables that will influence the effectiveness of these procedures; and
- the critical areas of the particular aeroplane.

It is essential for all personnel to recognise that final assurance for a safe take-off rests in a thorough pre-take-off inspection or check. Aircraft preparation for service begins with a thorough inspection of the aircraft exterior to ensure all lifting and control surfaces are aerodynamically clean. There must be no ice, snow, slush or frost adhering to critical surfaces. Exceptions are sometimes allowed in the aircraft flight manual, however the flying surfaces must definitely be free of any contamination.

Further information on aircraft icing and its management can be found in the Aircraft Icing Handbook which is available from the NZ CAA website.

**GM 135.362 Procedures relating to portable electronic devices**

No further explanation beyond the regulatory wording necessary.

**GM 135.363 Procedures relating to the carriage of animals**

No further explanation beyond the regulatory wording necessary.

**GM 135.365 Polar operations**

See the definition of “polar region” in the CASR dictionary.

This regulation carries over some existing requirements for flights in the polar region under CAO 82.0 and introduces modified new requirements relating to the wearing of anti-exposure or immersion suits depending on the environment being overflown.

**GM 135.370 Cosmic radiation limits**

No further explanation beyond the regulatory wording necessary.

**GM 135.375 Exceeding cosmic radiation limits**

No further explanation beyond the regulatory wording necessary.

# 6 Subpart 135.E—IFR flights

**AMC 135.385 Take-off and landing minima**

The basic concept is that operators may choose to apply minima for take-off and landing which are more conservative that those prescribed in regulations or authorised aeronautical information.

Procedures for the selection of a take-off and landing minima for a flight must consider regulatory requirements and operating environment. Regulatory requirements are those prescribed by Part 91 of the CASR. Operating minima for Australian certified and registered aerodromes are defined according to the regulatory requirements and published in the AIP. Consideration of the operating environment for a flight should include the following;

- the type, performance and handling characteristics of the aeroplane
- the composition of the flight crew, their competence and experience
- the dimensions and characteristics of the runways which may be selected for use
- the adequacy and performance of the available visual and non-visual ground aids
- the equipment available on the aeroplane for navigation, acquisition of visual references and/or control of the flight path during the approach, landing and the missed approach
- the obstacles in the approach and missed approach areas and the obstacle clearance altitude/height for the instrument approach procedures
- the means used to determine and report meteorological conditions; and
- the obstacles in the climb-out areas and necessary clearance margins.

Flight crew experience and aeroplane performance may affect the selection of take-off minima. Relatively inexperienced flight crew operating a light multi-engine aeroplane will benefit from the added visual segment provided by a higher take-off minima. During normal operations, flight crew will be better prepared to enter IMC with the extra time provided by a higher take-off minima. During one engine inoperative operations, the availability of a visual reference is important for the safe control and navigation of the aeroplane during the resulting high stress periods.

Flight crew experience and aeroplane performance may also affect the selection of landing minima. Relatively inexperienced flight crew operating a light multi-engine aeroplane will benefit from the added visual segment provided by a landing minima. During normal operations, flight crew will be better prepared to conduct a stabilised final approach with the extra time provided by a higher landing minima. During one engine inoperative operations, the availability of a visual reference is important for the safe control and navigation of the aeroplane during the resulting high stress periods.

**GM 135.390 IFR flights to or from foreign countries that do not use ICAO procedures**

No further explanation beyond the regulatory wording necessary.

**GM 135.395 Authorised instrument approach procedures not in AIP**

Part 173 of the CASR allows for organisations to develop their own instrument approach procedures or have them developed by third parties. The procedures must be developed by one of the following organisations:

- Authorised Part 173 design organisation
- Certified Part 173 design organisation

Once the instrument approach procedure has been authorised by CASA and the operator has been approved by CASA to use the approach, the operator may begin conducting the procedure.

# 7 Subpart 135.F—Performance

### GM 135.410 Performance data

No further explanation beyond the regulatory wording necessary.

### GM 135.415 Take-off weights

Take-off weight requirements prescribed by regulation 135.415 supersede those prescribed by regulation 91.1035.

The take-off weight of an aircraft must not exceed either the certified MTOW of the aircraft, or the performance limited maximum take-off weight. Performance data is detailed in an aircraft AFM, POH or AFM supplement.

To accommodate differences between certified and actual performance of both the aeroplane systems and flight crew technique, a factor is must be applied to take-off performance figures.

An AFM may include a factor in take-off performance charts with no further factoring required. Where performance data is unfactored, a PIC must include a take-off factor when calculating the take-off distance required.

Operations to some aerodromes may require the use of a non-standard take-off factor. Operators who require the use of a non-standard take-off factor must have CASA approval. An approved take-off factor applies only to propeller driven aeroplanes.

The standard take-off factor is designed to ensure a margin between the take-off distance required and the take-off distance available. The margins are defined by Part 4 of the Part 135 MOS as follows:

- for an aeroplane with a MTOW of not more than 2 000 kg—1.15
- for an aeroplane with a MTOW of more than 2 000 kg and less than 3 500 kg—a factor derived by linear interpolation between 1.15 and 1.25, according to the aeroplane's MTOW
- for an aeroplane with a MTOW of 3 500 kg or more—1.25.

A description of the take-off factor to be applied to an operation is shown in Table 2.

**Table 2 Take-off factors**

| Aeroplane power type | Is there a Flight manual for the aeroplane | Approved factor available? | Take-off factor to be applied |
|---|---|---|---|
| Jet / Propeller | Yes | No | Standard take-off factor |
| Propeller | | Yes | Approved take-off factor |

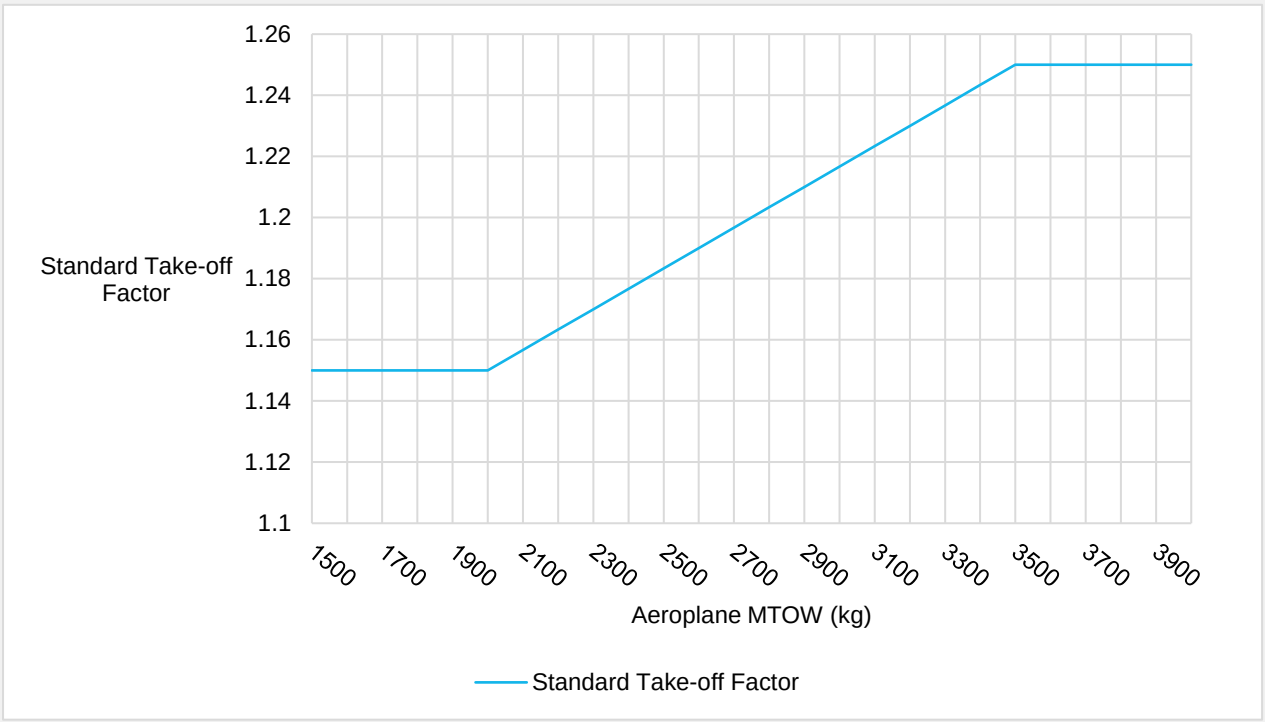


**Figure 1 Standard take-off factor**

Obstacle clearance procedures should be defined in an operator's operations manual. Procedures may include a curved take-off path to ensure obstacle clearance. Procedures must ensure the take-off weight of an aeroplane provides adequate performance to ensure obstacle clearance at all times. Information on obstacle information is available from CAAP 89W-1(0) *Guidelines on provision of obstacle information for take-off flight planning purposes*.

### AMC 135.445 Landing weights

Landing weight requirements prescribed by regulation 135.445 supersede those prescribed by regulation 91.1040.

The landing weight of an aircraft must not exceed either the certified MTOW of the aircraft, or the performance limited maximum landing weight. Performance data is typically detailed in an aircraft AFM, POH or AFM supplement.

To accommodate differences between certified and actual performance, a factor is applied to landing performance figures.

Operations to some aerodromes may require the use of a non-standard landing factor. Operators who require the use of a non-standard take-off factor must have CASA approval. An approved landing factor applies only to propeller driven aeroplanes.

The standard landing factor is defined by Part 4 of the Part 135 MOS as follows:

- for an aeroplane with a MTOW of not more than 2 000 kg—1.15
- for an aeroplane with a MTOW of more than 2 000 kg and less than 4 500 kg—a factor derived by linear interpolation, between 1.15 and 1.43, according to the aeroplane's

MTOW

- for an aeroplane with a maximum take-weight of 4 500 kg or more—1.43.

A description of the landing factor to be applied to an operation is shown in Table 3.

**Table 3 Landing factors**

| Aeroplane Type | Is there a Flight manual for the aeroplane | Approved factor available? | LAHSO Operation? | Wind Component during LAHSO operation | Factor |
|---|---|---|---|---|---|
| Propeller | Yes | No | No | N/A | Standard landing factor |
| Propeller | | Yes | No | N/A | Approved landing factor |
| Propeller | No | No | No | N/A | Standard landing factor |
| Jet | | | No | N/A | 1.67 |
| Jet / Propeller | | | Yes - dry runway | Headwind or nil wind | 1.67 |
| Jet / Propeller | | | Yes - wet runway | Headwind or nil wind | 1.92 |

# 8 Subpart 135.J—Weight and balance

**GM 135.485 Loading of aeroplane**

Aeroplane loading requirements prescribed by regulation 135.485 supersede those prescribed by regulation 91.1090.

**AMC 135.495 Weight and balance documents**

Procedures should ensure any Last Minute Change (LMC) to aeroplane loading is brought to the attention of the PIC or co-pilot and entered on the weight and balance documentation.

The LMC should contain the following minimum information:

- the load to be changed (bags, passengers and/or cargo etc)
- the weight of the load to be changed
- the location of load to be changed (cabin/bay area, hold and / or compartment etc.)
- the nature of the change
- the intended location of the load (if remaining onboard)
- the total weight and index change of the LMC

If in any doubt about the limitations of the aircraft, use the weight and balance system to produce a new load sheet. In the case of a manual load sheet, use a balance chart to ensure compliance.

If weight and balance documentation is sent to an aeroplane by datalink, a copy of the final weight and balance documentation, as accepted by the aeroplane's pilot in command, should remain available on the ground.

If weight and balance documentation is generated by a computerised weight and balance system, the operator should develop a system to verify the integrity of the data at regular intervals.

# 9 Subpart 135.K—Instruments, indicators, equipment and systems

## 9.1 Division 135.K.1—General

**GM 135.500 Approval of instruments, indicators, equipment and systems**

This regulation sets out the requirements for the approval of all equipment in this Subpart to be approved under these regulations, or if a foreign registered aircraft approved by that country's national aviation authority. This does not apply to the equipment mentioned in subregulation (1).

For Instruments and Equipment required by Part 121 Subpart K, 'Approved' means that compliance under these regulations. In particular, parts 21.305 and 21.305A have been demonstrated.

'Installed' means that the installation of Instruments and Equipment has been demonstrated to comply with the applicable airworthiness requirements under these regulations (including JAR/FAR-23/JAR/FAR-25).

Instruments and Equipment approved in accordance with design requirements and performance specifications, before the applicability date of these regulations, are acceptable for use or installation on aeroplanes operated for air transport operations provided that any relevant Part 121 requirement is complied with.

Instruments and equipment approved in accordance with design requirements and performance specifications other than TSOs, before the applicability date of Part 121, are acceptable for use or installation on aeroplanes operated for Part 121, provided that any relevant Part 121 requirement is complied with.

When a new version of a TSO (or of a specification other than a TSO) is issued, instruments and equipment approved in accordance with earlier requirements may be used or installed on aeroplanes operated for the purposes of Part 121, provided that such instruments and equipment are operational, unless removal from service or withdrawal is required by means of an amendment to Part 121.

**GM 135.505 Visibility and accessibility of pilot-operated instruments, indicators, equipment and systems**

Requirements for the visibility of pilot-operated instruments, indicators, equipment and systems required under Part 135 of CASR.

## 9.2 Division 135.K.2—Flight instruments, indicators, equipment and systems

**GM 135.510 Flight instruments, indicators, equipment and systems**

Requirements for instruments, indicators, equipment and systems prescribed by this regulation supersede those prescribed by regulation 91.1150 of the CASR

Individual equipment requirements may be met by combinations of instruments, by integrated flight display systems or by a combination of parameters on electronic displays. The information available to each pilot must meet the operational requirements and the equipment must be approved in accordance with regulation 135.500 of the CASR.

GENERAL-INTEGRATED INSTRUMENTS

Individual equipment requirements may be met by combinations of instruments, by integrated flight display systems or by a combination of parameters on electronic displays, provided that the information so available to each required pilot is not less than that required in the applicable operational requirements, and the equivalent safety of the installation has been shown during type certification approval of the aeroplane for the intended type of operation.

The means of measuring and indicating turn and slip, aeroplane attitude and stabilised aeroplane heading may be met by combinations of instruments or by integrated flight display systems, provided that the safeguards against total failure, inherent in the three separate instruments, are retained.

MEANS OF DISPLAYING OUTSIDE AIR TEMPERATURE

The means of displaying outside air temperature should be calibrated in degrees Celsius.

The means of displaying outside air temperature may be an air temperature indicator that provides indications that are convertible to outside air temperature.

MEANS OF MEASURING AND DISPLAYING THE TIME

An acceptable means of compliance is a clock displaying hours, minutes and seconds, with a sweep-second pointer or digital presentation.

CHART HOLDERS

Chart holders must be capable of holding charts in either a physical or electronic format. Where an electronic flight bag is used, reference to a chart holder can apply to the mount for the electronic flight bag. Whatever form the chart holder is in, it's presence must not interfere with the operation of controls.

## 9.3 Division 135.K.3—Flight recording equipment

**GM 135.535 Requirements relating to flight data and cockpit voice recorders**

Requirements relating to flight data and cockpit voice recorders prescribed by this regulation supersede those prescribed by regulation 91.1150 of the CASR.

Flight data preservation requirements are prescribed by regulations 91.723 and 91.724.

## 9.4 Division 135.K.4—Ancillary or auxiliary equipment

**GM 135.540 Ancillary or auxiliary equipment**

Ancillary and auxiliary equipment fitment and serviceability requirements prescribed by this regulation supersede those prescribed by regulation 91.1150.

**GM 135.560 When an aeroplane may be flown with an inoperative automatic pilot system**

In addition to permissions provided by this regulation, the operator and PIC must ensure flight with the inoperative system is permitted by the aeroplane MEL.

**GM 135.570 When an aeroplane may be flown with an inoperative ACAS II**

In addition to permissions provided by this regulation, the operator and PIC must ensure flight with the inoperative system is permitted by the aeroplane MEL.

**GM 135.580 When an aeroplane may be flown with an inoperative terrain awareness and warning system**

In addition to permissions provided by this regulation, the operator and PIC must ensure flight with the inoperative system is permitted by the aeroplane MEL.

**GM 135.587 When an aeroplane may be flown with inoperative airborne weather radar equipment**

In addition to permissions provided by this regulation, the operator and PIC must ensure flight with the inoperative system is permitted by the aeroplane MEL.

**GM 135.590 Equipment for flight in icing conditions**

No further explanation beyond the regulatory wording necessary.

## 9.5 Division 135.K.5—Aeroplane lighting

**GM 135.600 Aeroplane lighting**

Aeroplane lighting fitment and serviceability requirements prescribed by this regulation supersede those prescribed by regulation 91.1150.

Anti-collision lights shall be displayed from immediately before the engines are started for flight until immediately after the engines are shut down at the end of a flight.

If the anti-collision lights are not red, then the anti-collision lights shall be displayed if the aircraft crosses any active runway and from the time the aircraft enters a runway for take-off until the aircraft has vacated a runway on which it has landed.

Navigation lights shall be displayed from immediately before the engines are started for a flight at night, until immediately after the engines are shut down at the end of the flight.

In all cases, external aircraft lights may be turned off if in the opinion of the pilot in command they are causing reflection or glare that may be hazardous in the circumstances.

## 9.6 Division 135.K.6—In-flight communication systems

**GM 135.610 In-flight intercommunication system**

Fitment and serviceability requirements prescribed by this regulation supersede those prescribed by regulation 91.1150.

## 9.7 Division 135.K.7—Oxygen equipment and supplies

**AMC 135.620 Oxygen equipment and supplies**

*Unpressurised aeroplanes*

Supplemental oxygen must be supplied for pilots and passengers whenever the aircraft is operated above 10 000ft for greater than 30 minutes, with an absolute limit of FL130.

Nasal cannula manufactured under the name 'Oxymizer' may be used to meet crew or passenger breathing requirements. If used, cannula operations should meet the following limits:

- the minimum flow of supplemental oxygen available for each flight crew member at various cabin pressure altitudes must not be less than 0.3 litre per minute at 10 000 feet altitude, increasing by 0.1 litre per minute for every 2 000 feet up to 18 000 feet altitude;
- the aircraft must not operate above 18 000 feet altitude.

**GM 135.620 Oxygen equipment and supplies**

Oxygen equipment fitment and serviceability requirements prescribed by this regulation supersede those prescribed by regulation 91.1150.

Airworthiness standards for aeroplanes in the transport category are prescribed by Part 25 of the CASR. Rules prescribed by Part 25 of the CASR include oxygen supply requirements. An aeroplane certified in the transport category is therefore taken to have met the requirements of this regulation.

Airworthiness standards for aeroplanes in the commuter or normal category are prescribed by Part 23 of the CASR. Rules prescribed by Part 23 of the CASR do not include oxygen supply requirements. Therefore, operators of aircraft operated under a commuter or normal category must ensure aeroplanes meet the requirements of this regulation.

## 9.8 Division 135.K.8—Emergency and survival equipment

### GM 135.685 Emergency and survival equipment

Emergency and survival equipment requirements are shown in Table 8.

**Table 4 Emergency and survival equipment**

<table>
<tr><th colspan="4">All Operations (Passenger Transport and Cargo Transport)</th></tr>
<tr><td colspan="2">All Flights</td><td>Hand-held fire extinguisher</td><td>1 x located in or adjacent to crew compartment.<br><br>MOPSC > 7, 1 x located in passenger compartment<br><br>1 x located adjacent to cargo compartment (if accessible and not fitted with fire extinguishing system)</td></tr>
<tr><td colspan="2"></td><td>First Aid Kit</td><td>Must be readily accessible to all crew and adults on board<br><br>Size appropriate to number of persons on board<br><br>Easily recognisable as first aid kit</td></tr>
<tr><td colspan="2">Flight further than 50nm from departure</td><td>Approved ELT</td><td>Exception:<br>ELT may be inoperative if the following are adhered to:<br>• flight is an aircraft relocation for ELT repair<br>• approved portable ELT carried, and<br>• passengers not carried</td></tr>
<tr><td colspan="2">Flight remaining within 50nm of departure</td><td>Approved portable ELT</td><td></td></tr>
<tr><td colspan="2">If landing in water likely during take-off or landing emergency</td><td rowspan="3">Life jackets</td><td rowspan="3">Must be readily available to each passenger.<br><br>Must have locator light and whistle<br><br>Life jacket or inflatable cot must be available for each infant on board</td></tr>
<tr><td>Single engine aeroplane</td><td>Flight is outside glide distance from a suitable forced landing area</td></tr>
<tr><td>Multi-engine aeroplane</td><td>Flight is further than 50nm from land</td></tr>
<tr><td>Multi-engine aeroplane</td><td>Flight will be greater than the following:<br>• 100nm from land, or<br>• the 30min cruise speed distance from land<br><br>(whichever is shorter)</td><td>Life Raft(s)</td><td>Lift raft must have rated capacity equal or greater than number of adolescent and adult passengers on board.<br>Lift raft must be equipped with locator light and approved portable emergency locator transmitter</td></tr>
</table>

| | | | |
|---|---|---|---|
| Single engine aeroplane | Flight will be greater than glide distance from a suitable forced landing area and operator exposition does not include risk management procedures | | |
| | Flight will be greater than glide distance plus 5 min cruise speed distance from suitable forced landing area and operator exposition does include risk management procedures | | |
| Flight is through a remote area | | Survival Equipment | Appropriate to area |
| Flight is required to carry life raft | | Pyrotechnic signalling devices | Rockets or shells throwing red lights, fired one at a time<br>at short intervals, and/or<br>A parachute flare showing a red light |
| Required by a CASA direction | | | |
| Seaplane or amphibian | | Life jackets<br>Sea anchor<br>Mooring equipment | |

Note: the pyrotechnic signalling devices list are those stipulated by Appendix 1 to Annex 2, Rules of the Air, to the Chicago Convention.

The operator should always have available for immediate communication to rescue coordination centres (RCCs) lists containing information on the emergency and survival equipment carried on board any of their aircraft.

**AMC 135.730 Survival equipment procedures**

Procedures should instruct the PIC to check the serviceability of this equipment prior to take-off. Instructions regarding the location, accessibility and use of survival and emergency equipment and its associated checklist(s) should also be included.

Procedures should instruct the PIC to inspect a first aid kit at the end of a flight and replenish supplies as necessary taking into consideration contents used and expiry dates.

## 9.9 Division 135.K.9—Internal doors and curtains

**GM 135.735 Internal doors and curtains**

No further explanation beyond the regulatory wording necessary.

# 10 Subpart 135.N—Flight crew

## 10.1 Division 135.N.1—General

### GM 135.745 Composition, number, qualifications and training

This regulation sets out the requirements for all flight crew members in a Part 135 operation.

### GM 135.750 Competence

These training and checking regulations provide a minimum level of competence standards for flight crew operating under this Part. These regulations are not meant to be a one-size-fits-all set of regulations and it is imperative that operators formulate their own specific set of equal or better standards after thorough assessment of their operational characteristics. SMS will be crucial in this development and operations identified by SMS as having a higher degree of difficulty, may require higher training or checking standards than set out in these regulations.

Procedures should also be incorporated into the training and checking system for flight crew who fail to maintain an adequate standard of competency in their duties. Regulations cannot prescribe the remedial training required and an operator should take reasonable steps to assist in bringing the flight crew member back to a suitable level of competency.

### GM 135.755 Assignment to duty of pilot in command

No further explanation beyond the regulatory wording necessary.

### GM 135.760 Pilot in command

A syllabus should be developed to ensure that a pilot is adequately qualified and competent to assume responsibility as pilot in command of the aeroplane. Emphasis should be placed on a commander's authority, company organisation and policy, operational control and other matters relating to the responsibility of the pilot in command.

Knowledge and skills are important elements for a commander; however, Human Factors and Non-Technical Skills (HF and NTS) should be ingrained into this training as an essential component for the suitability for command. These core values will include command principles such as communication, workload management, error prevention and detection, decision making and other HF and NTS.

### GM 135.770 Co-pilot

The supervised line flying should be conducted over as many as practical of the routes/areas that the co-pilot will be expected to operate on. This may not be possible where a pilot is receiving the training in a different area than where they will eventually be operating.

A pilot in command is qualified as a co-pilot if the requirements of non-command seat flying as prescribed by the Part 135 Manual of Standards is met in the pilot's proficiency check.

**GM 135.780 Pilot in command in non-command pilot's seat**

No further explanation beyond the regulatory wording necessary.

**GM 135.785 Use of approved flight simulators for training or checking**

See Part 61.010 – Definitions, for the definition of an approved flight simulator and recognised foreign state.

See also AC 60-02 v2.2 Flight simulator approvals.

This provision provides for the regulator to, if deemed necessary in the future, require a specific aircraft to utilise a simulator. This is identical to the current CAO 82.0 Appendix 8.

**GM 135.787 Knowledge of route and aerodromes**

An operator is required by this regulation to include in their exposition criteria for assigning a pilot for a duty. Items to be considered when determining that criteria include, but are not limited to, the following:

- whether the pilot has been certified as competent for the route by a pilot who is qualified for that route
- whether the pilot has made at least one trip over that route within the preceding 12 months as a pilot member of the operating crew of an aircraft engaged in any class of operation
- whether the pilot has an adequate knowledge of the route to be flown, the aerodromes which are to be used and the designated alternate aerodromes, including a knowledge of
- the terrain;
- the seasonal meteorological condition;
- the meteorological, communication and air traffic facilities, services and procedures;
- the search and rescue procedures, and
- the navigational facilities associated with the route to be flown
- whether the pilot has demonstrated that he or she is proficient in the use of instrumental approach-to-land systems which may be utilised

## 10.2 Division 135.N.2—Operation of aeroplanes of different type ratings

**GM 135.790 Application of Division 135.N.2**

No further explanation beyond the regulatory wording necessary.

## 10.3 Division 135.N.3—Operation of aeroplanes of different types

**GM 135.805 Application of Division 135.N.3**

No further explanation beyond the regulatory wording necessary.

**GM 135.810 Assignment as pilot in command on different types**

***** **NOTE:** CASA is still considering how proficiency checks for different types – as opposed to different type ratings – should be codified. Feedback on this matter is welcome in this public consultation.

## 10.4 Division 135.N.4—Recent experience

**GM 135.815 Recent experience requirements—90 days before flight**

No further explanation beyond the regulatory wording necessary.

# 11 Subpart 135.P—Crew other than flight crew

## 11.1 Division 135.P.1—Air crew

**GM 135.820 Training and checking**

No further explanation beyond the regulatory wording necessary.

**GM 135.825 Competence**

No further explanation beyond the regulatory wording necessary.

**GM 135.830 English proficiency**

No further explanation beyond the regulatory wording necessary.

## 11.2 Division 135.P.2—Medical transport specialists

**GM 135.835 Training and checking**

No further explanation beyond the regulatory wording necessary.

**GM 135.840 Competence**

No further explanation beyond the regulatory wording necessary.