GENERAL RULES

1. Documentation

Carriage of documents (91.105)

You must ensure the following documents are carried on your flight:

- for each flight crew member
  - medical certificate
  - flight crew licence or certificate of validation
  - passport or photographic ID as issued by a Commonwealth state or territory authority or agency that is current and been issued within 10 years of the day of your flight (EX81/21)
- the aircraft's flight manual
- the operating instructions for any computerised navigation systems fitted to the aircraft
- the minimum equipment list for the aircraft (if any).

> **Exception:** *You do not have to carry the documents listed, if you are flying aerobatic manoeuvres and carrying the documents would present a risk to the aircraft or its occupants.*
>
> EX86/21 *exempts the pilot of aerial work operations (aerial work certificate holder) from carrying their flight crew licence and medical certificate (or medical exemption) provided they give CASA prior written notice that these documents will not be carried or in the case of a flight which has already occurred they provide written notice that the documents were not carried within 24 hrs after the end of the flight.*

You will meet the requirement to carry photographic ID by carrying your state issued driver's licence or your aviation security identification card (ASIC).

EX82/21 requires air transport operators to have their electronic flight bags approved by CASA. Some exceptions apply.

AC 11-03 Electronically formatted certifications and records management systems provides guidance on using electronic documents.

Carriage of documents for certain flights (91.110)

You must carry the authorised aeronautical information for the flight, and either the aircraft's flight technical log or its maintenance release.

> **Exception:** *You do not need to carry these documents if you are operating:*
>
> - *under the visual flight rules (VFR) by day within 50 nautical miles (NM) of your departure aerodrome, or*
> - *inside a flying training area for an aerodrome, or*
> - *on a route to or from a flying training area which is not adjacent to its associated aerodrome.*

Carriage of documents for flights that begin or end outside Australian territory (91.115)

When your flight begins or ends at an aerodrome outside Australia, you must carry:

- the aircraft's certificate of airworthiness and certificate of registration
- the journey log for the flight
- a list of passengers including their name, place of embarkation and destination
- when carrying cargo (other than passenger baggage) a manifest and detailed declaration of the cargo
- a copy of the radio station licence if the aircraft has a radio station licence that is an apparatus licence or a class licence
- a copy of any approval or authorisation held by the operator that is relevant to the flight.

If you intend to rely on electronic documents to satisfy this requirement when flying outside Australia then, before your flight, you should check that electronic copies of the required documents will satisfy the laws of the foreign country.

Electronic documents (91.100)

A document required to be carried on a flight may be carried as a copy in electronic form.

Journey logs – flights that begin or end outside Australian territory (91.120)

When a flight begins or ends outside Australia (an international flight), you and the operator must ensure that the information below is recorded in a journey log.

Journey log information before an international flight begins (MOS 5.02)

The following information must be recorded on the journey log as soon as practical after the flight begins:

- aircraft registration mark or flight number (if any)
- date of the flight
- for each flight crew member (FCM) assigned to the flight, the FCM's name, and their assigned duties
- place of departure
- amount of fuel added to the aircraft's fuel tanks before the flight begins (if any)
- amount of fuel in the aircraft's fuel tanks when the flight begins.

Journey log information after an international flight ends (MOS 5.03)

The following information must be recorded on the journey log as soon as practical after the flight ends:

- place of arrival
- time the flight began
- time the flight ended
- duration of the flight
- amount of fuel in the aircraft's fuel tanks when the flight began
- the amount of fuel in the aircraft tanks at the end of the flight
- incidents and observations (if any) that may have been relevant in any way to the safety of the flight.

A General Declaration or other document carried on a flight which captures the necessary information, can be a journey log. Refer International Civil Aviation Organization (ICAO) Annex 9.

Compliance with flight manual (91.095)

You must operate an aircraft in accordance with the aircraft flight manual (AFM) instructions and any condition in the certificate of airworthiness or special flight permit from:

- the earlier of the time the aircraft's doors are closed before take-off or the aircraft moves under its own power for take-off, to
- the later of the time the aircraft's doors are opened after landing or the aircraft comes to a rest after being airborne.
- you must also ensure that any activity in relation to the flight or operation, whether occurring before during or after the flight, is conducted in a way that meets each requirement or limitation for the activity in the AFM (EX81/21).

Exception: *For CASR Part 137 Aerial application operators see CASA instruments EX92/22 and EX93/22 for directions and exemption that apply.*

A reference to a flight manual, AFM or AFM instructions includes the normal, abnormal and emergency procedures and any operating limitation, instructions, marking and placards relating to the aircraft. For older aircraft the AFM may be referred to as the Pilot's Operating Handbook (POH), Owner's Handbook or Owner's Manual (see AC 21-34).

Reporting and recording defects and incidents (Division 91.C.4)

This Division is reserved for future use.

2. Flight crew and operator obligations

Aircraft not to be operated in manner that creates a hazard (91.055)

You must not operate an aircraft in a manner that creates a hazard to another aircraft, person or property.

Part 61.385 requires that you must be competent before you fly your aircraft. Although your competence is checked periodically you must always be conversant with aircraft systems, performance and limitations etc. Seek refresher training if necessary. See CASR 61.385, for more detail about the limitations on exercising the privileges of your pilot licence.

Requirements to be met before Australian aircraft may fly (91.145)

Before you commence a flight, you must ensure:

- the aircraft is registered
- the aircraft has a nationality mark and a registration mark painted on or affixed to it, in accordance with Part 45
- the aircraft has a certificate of airworthiness or special flight permit, where required by the regulations
- you comply with any condition set out or referred to in the maintenance release, or in any other document approved for use as an alternative to the maintenance release
- you have all required pilots onboard.

A registered aircraft is one registered under Part 47.

A special flight permit may be issued under Part 21 to allow an aircraft to be flown for the purpose of:

- *maintenance or storage*
- *delivery or export*
- *testing for production*
- *removal from danger*
- *demonstration to a customer (for aircraft that have completed flight production flight tests)*
- *assisting in search and rescue*
- *assisting in a state of emergency*
- *operating above maximum certificated take-off weight for long-range flights in specific circumstances.*

Authority and responsibilities of pilot in command (91.215)

You must ensure the safety of persons and cargo, and the safe operation of the aircraft during a flight.

You have the final authority over the operation of the aircraft and the maintenance of discipline by all persons onboard. Your authority over the operation of the aircraft begins when the aircraft doors are closed before take-off, or the time the flight begins (whichever is earlier) and ends when the doors are opened after landing, or the time the flight ends (whichever is later).

Although this regulation identifies the period your authority begins and ends, you will have to undertake duties outside this period to ensure the safety of the flight. You may discharge your responsibilities by delegating certain tasks to others (such as crew members).

Actions and directions by the operator or pilot in command (91.220)

If it is necessary for the safety of the aircraft, or a person on the aircraft, or a person or property on the ground or water, you and the operator may:

- direct a person to:
  - do, not to do, or limit the doing of something while the person is on the aircraft, or
  - leave the aircraft before the flight begins.
- and, with assistance and use of reasonable and necessary force:
  - remove a person or a thing from the aircraft before the flight begins, or
  - restrain a person for the duration of the flight or part of the flight, or
  - seize a thing on the aircraft for the flight or part of the flight, or
  - place a person on the aircraft in custody, or
  - detain a person or a thing, until the person or thing can be released into the control of an appropriate authority.

A person must comply with a direction you or the operator give.

Note: Under regulation 91.225, crew members of an aircraft have a limited power of arrest.

Image | CASA

Operating an Australian aircraft outside Australia (91.140)

When operating an Australian aircraft outside Australia you and the operator must comply with:

- any applicable law of a foreign country
- any applicable requirements of Annex 2 of the Chicago Convention when over the high seas.

Australia is substantially ICAO compliant and aviation law around the world is becoming more standardised. However, there are notable differences between some countries – for example in the use of metric units or the height of the transition level.

The common meaning of high seas is, over open ocean and not within any country's jurisdiction. Article 86 of the UN Convention on the Law of the Sea 1982 defines 'high seas' as all parts of the sea that are not included in the exclusive economic zone, in the territorial sea or in the internal waters of a state, or in the archipelagic waters of an archipelagic state.

Australia's CASR Part 91 differs from ICAO in several areas the most pertinent of which are:

- *when submitting a flight plan during flight, it must reach the relevant ATS unit 10 minutes before expected entry into their controlled airspace, and*
- *if there is a communication failure in controlled airspace, maintain heading and altitude for 20 minutes (in a non-radar environment) or for 7 minutes (in a radar environment).*

For the full list of Part 91 vs. ICAO differences refer to Part 91 AMC/GM.

Operating aircraft with inoperative, equipment – placarding (91.150)

Before a flight, you and the operator must ensure an inoperative placard is applied to any inoperative item of equipment required to be fitted or carried which is accessible and likely to be used.

Figure 1: Example – inoperative placard

Aircraft equipped to fly under the VFR or IFR

Directional Indicator is inoperative – you must placard the indicator as 'inoperative' before the next the flight

Required to be fitted means, required by the type certifying authority or the regulations. Where an item of equipment is permitted to be inoperative, you must comply with any associated conditions or restrictions to ensure that the aircraft is operated safely.

Seating for flight crew members (91.550)

At all times during a flight, at least one pilot who is qualified and competent, must occupy a pilot seat with the seatbelt securely fastened.

Each flight crew member must occupy their station and have their seatbelt and shoulder harness securely fastened during take-off, landing or at any other time you direct.

A flight crew member occupying a crew station on the flight deck (including jump seat) must keep their seatbelt securely fastened.

Manipulating flight controls (91.155)

A person must not, and you must not allow a person to, manipulate the flight controls of the aircraft unless the person is qualified to pilot the aircraft.

Operation of portable electronic devices (91.170)

During a flight, a person may only operate a portable electronic device with your permission. You may only give permission if you have determined that operating the device will not affect the safety of the aircraft.

A person must cease to operate the device at your direction or the direction of a cabin crew member.

When giving your permission, you should consider any relevant limitation in the AFM, the aircraft manufacturer's supplementary data (if any) or your operational experience with that type of personal electronic device.

Multi-engine aircraft – pilot in command to land at nearest suitable aerodrome if emergency occurs (91.685)

If you are flying a multi-engine aircraft and an emergency occurs that threatens the safety of the aircraft or persons onboard, you must land at the nearest suitable aerodrome.

The determination of the nearest suitable aerodrome might be based on – but not limited to – the following:

- *nature of malfunction and possible mechanical difficulties that may be experienced*
- *nature and extent of any populous area over which the aircraft is likely to fly*
- *availability of thrust from a malfunctioning engine*
- *altitude, weight and usable fuel available*
- *characteristics of aerodromes available*
- *emergency services availability*
- *weather conditions en route and at possible landing places*
- *air traffic congestion*
- *type of terrain, including whether flight is likely to be over water*
- *familiarity with the aerodrome.*

Sound decision-making using a formal process will allow you to achieve a safe flight outcome in the event of an emergency. A decision should never be made solely with regard to commercial expedience; the safety of the flight must be your priority.

Image | CASA

Air defence identification zone flights (91.263)

If you fly an aircraft in an air defence identification zone (ADIZ) you must comply with the procedures in the AIP for that zone.

> **Exception:** *For a Part 131 aircraft, if you enter an ADIZ and you are unable to comply with the ADIZ procedures, no offence is committed if you land as soon as practicable and inform the controlling authority.*

> *An ADIZ is airspace with defined dimensions within which identification of all aircraft is required.*

Availability of instructions for flight data and combination recorders (91.645)

Where an aircraft must be fitted with a flight data recorder or combination recorder, the operator must be able to provide the instructions for the recorder immediately to the Australian Transport Safety Bureau (ATSB).

Flight recorders – preserving recordings of immediately reportable matters (91.650)

The ATSB may notify an operator of an aircraft fitted with a flight data recorder, cockpit voice recorder or combination recorder within 72 hours of an immediately reportable matter occurring that the recorders and/or recordings must be retained for an investigation.

In the event of an immediately reportable matter occurring, an operator must preserve the recorders and recordings until advised by the ATSB that they are no longer required, or in any other case, until 72 hours after the matter is reported to the ATSB.

> **Exception:** *This requirement does not apply if the recordings or recorders are not preserved, and the operator took reasonable steps in the circumstances to preserve them.*

3. Training

Audit, examination and training flight limitations (91.725)

For this regulation, a permitted person is:

- a crew member
- a person authorised by the operator of the aircraft to conduct an audit of the operation involved, or to supervise it, or
- an authorised officer carrying out an examination, inspection or test of the work of the aircraft's crew.

Audit, examination, operator training and record keeping (EX81/21)

A permitted person may conduct an audit of the operator. A person authorised by CASA or by the operator, may conduct an examination of the crew (also referred to as a check, inspection or test).

In each case the pilot in command (PIC) and the operator must ensure that the person has:

- successfully completed training, in accordance with a written syllabus accepted by the operator for the person to audit the operation and
- satisfied the operator that the person is competent to audit by possessing the skill, knowledge and experience to audit the particular activity.

The syllabus must be in either the exposition, operations manual or the training and checking manual, or if it is a syllabus devised by another operator it can be referenced in the relevant place.

The operator must ensure that, as soon as practicable after the operation, a written audit report is:

- provided by the person who conducted the audit or examination and
- is assessed to determine whether any changes are required for the safety of the operation.

Each audit report and its assessment must be retained by the operator for at least 3 years after the date of the assessment.

Image | CASA

Limiting the carriage of persons during audit, examination and training

You must not permit the carriage of persons other than as set out in the table below.

Carriage of persons while causing or simulating failures

Flight activity	Maximum persons that can be carried
Flight training (defined term) for a flight crew member who does not hold a class rating or type rating for the aircraft	4 permitted persons
The simulation (other than verbally) of an emergency or abnormal situation that may affect the handling characteristics of the aircraft (other than rotorcraft)	3 permitted persons
The simulation (other than verbally) of an emergency or abnormal situation that may affect the handling characteristics of the aircraft (rotorcraft)	3 permitted persons including the pilot or 4 permitted persons if the PIC is satisfied that the presence of a fourth permitted person is essential for the safe conduct of the flight
Below 500 ft AGL (other than training for take-off and landing)	No limit to the number of permitted persons unless another restriction within this table also applies to the flight
For a Part 61 low level rating (or aerial application rating) or the equivalent qualification under a law of a foreign country	4 permitted persons
For a Part 61 aerobatic or spinning endorsement or the equivalent qualification under a law of a foreign country	3 permitted persons
Carriage of observers	
Observers may be carried in addition to crew members or flight crew members on flight tests and proficiency checks flight as expressed in the exemption instrument EX 81/21 sections 28, 29, 30, 31, 32, 33, 34 subject to the conditions set out in appendix D.	

You must not permit a test of the aircraft or any of its instruments, indicators, items of equipment or systems, if a person other than a permitted person or a maintenance person (who is required, as part of their duties, to be on the aircraft), is onboard the aircraft.

Exception: *Tests of the aircraft during checks associated with the normal operations of the aircraft may be conducted.*

Training flights are associated with elevated levels of risk. For this reason, the regulations restrict the carriage of passengers on such flights and only allow the carriage of permitted persons in certain circumstances.

Causing or simulating engine failures – aeroplanes

Causing or simulating failure of flight instruments (91.715)

You may only cause or simulate a failure of the following kinds of instruments when it is for pilot training, checking or testing, and only required crew members are on the aircraft:

- an attitude indicator
- a gyro compass or an equivalent instrument
- an airspeed indicator
- an altimeter.

> **Exception:** *The above requirement does not apply if it is part of a maintenance test flight, or a procedure to diagnose or isolate a failure of an instrument or system.*

You must also be qualified to train, check or test, and:

- authorised to occupy a control seat fitted with a fully functioning set of flight controls, and
- if the flight is in instrument meteorological conditions (IMC) or at night, must have a clear view of an instrument of the same kind as the instrument that has been caused to fail or simulated to be failed.

> **Exception:** *EX81/21 (28) allows observers on flight test and proficiency check flights who are not required crew members subject to the conditions set out in* appendix D.

Simulating IMC flying (91.720)

You must not simulate IMC flight in an aircraft unless a safety pilot occupies a pilot seat with fully functioning controls, has adequate vision forward and to either side of the aircraft and is qualified to fly the aircraft.

A pilot flying under simulated IMC must also occupy a pilot seat with fully functioning controls.

Note: If the aircraft flight manual requires 2 pilots, under Part 61, both pilots must have a type rating for the aircraft.

> *Whenever IMC is simulated in visual meteorological conditions (VMC) it is essential that a qualified safety pilot, with unobstructed vision, can look out for other traffic and manipulate the flight controls if an immediate avoidance manoeuvre is required. See* AC 91-14 *- Pilot's responsibility for collision avoidance.*

Aeroplane flights in IMC or at night – engine not to be shut down (91.730)

You must ensure that the engine of an aeroplane is not shut down during a flight in IMC or at night.

> *Nothing prevents you from shutting down an engine in an emergency.*

Single-engine aeroplane – VFR flights by day – engine not to be shut down (91.735)

You may only shut down an engine during a day VFR flight if the flight is for pilot training and you hold a flight instructor rating, an examiner rating, or other authorisation.

Only flight crew members may be carried, and the aeroplane must remain within gliding distance of a safe forced landing area.

EX81/21 (30) allows observers on flight test and proficiency check flights who are not flight crew members subject to the conditions set out in appendix D.

> *For training purposes an engine shutdown should be simulated. An engine should not actually be shut down in-flight for other than a type specific training requirement such as an in-flight air start.*

> *Nothing prevents you from shutting down an engine in an emergency.*

Single-engine aeroplane – simulating engine failure in IMC or at night (91.740)

An engine failure in flight may only be simulated at night or in IMC, providing it is for pilot training, checking or testing; and the pilot holds a flight instructor rating, flight examiner rating or other authorisation that allows the simulation of an engine failure.

Only flight crew members may be carried. You must hold a flight instructor rating, flight examiner rating or authorisation that authorises you to simulate an engine failure.

In addition, for a flight:

- at night, the simulation must commence above 1,000 ft above ground level (AGL) and the aeroplane must remain within gliding distance of a runway that is lit and is available for landing

› in IMC, the simulation must commence above the lowest safe altitude (LSALT) for the route or route segment, and visual meteorological conditions (VMC) conditions must exist below that altitude.

Exception: *EX81/21(31) allows observers on flight test and proficiency check flights who are not flight crew members subject to the conditions set out in* appendix D.

Simulation of an engine failure is where the engine controls are set to a position where there is zero forward thrust, but the engine remains running so that power can be applied without first starting the engine.

Multi-engine aeroplane – simulating engine failure – general (91.745)

You may only simulate an engine failure in a multi-engine aeroplane in flight in the following circumstances:

› The aeroplane is type certified to carry 9 passengers or less and has a maximum take-off weight (MTOW) 8618 kg or less

› for an aeroplane that is type certified to carry more than 9 passengers but less than 19 passengers – if there is no simulator for the type in Australia or, if there is a simulator for the type in Australia, the operator holds an approval

› for an aeroplane that is type certified to carry more than 19 passengers – if there is no simulator in Australia or no simulator approved by a recognised national aviation authority (NAA) anywhere in the world or, if there is such a simulator for the type, the operator holds an approval.

For flights conducted in accordance with 91T, (operations under certain special certificates of airworthiness and special flight permits), an engine failure may only be simulated in a multi-engine aeroplane if it is for a:

› test flight of a provisionally certified aircraft, or

› flight under a special flight permit – where a special flight permit allows engine failure simulation, or

› flight under an experimental certificate – where the experimental certificate allows engine failure simulation.

An application for an approval must include a safety risk management plan.

Multi-engine aeroplane – simulating engine failure in IMC or at night (91.750)

You may only simulate an engine failure in a multi-engine aeroplane in IMC or at night if you hold a flight instructor rating, a flight examiner rating, or other authorisation that allows engine failure simulation. The flight must be limited to pilot training, checking or testing and only flight crew members can be carried. The pilot under instruction must be briefed before the simulation and then supervised during the simulation.

Any simulation is to be carried out in accordance with procedures in the AFM (if any) and/or the operations manual.

In addition:

› when you are in IMC and not conducting an asymmetric instrument approach procedure (IAP), the aeroplane must be at or above the minimum height specified in regulation 91.305 Minimum heights - IFR flights

› when you are in IMC and are conducting an asymmetric IAP, the simulation must be initiated above the IAP initial approach altitude and you must have continual visual reference to the terrain when less than 1,000 ft above the relevant IAP minima

› when operating at night in VMC, the aeroplane must be:

  » above the minimum height mentioned in reg 91.305 or 91.277 (minimum heights – VFR flights at night) as the case requires if:

    – the aeroplane is not conducting an approach to land, or

    – is not within the circling area of an aerodrome

  » flown in accordance with an instrument approach procedure if:

    – the aeroplane is on approach to land, and is not within the circling area of an aerodrome, or

    – flown within the circling area of an aerodrome as determined in accordance with the method specified in the AAI.

› any simulated failure at night in VMC must be initiated at or above circuit height, and not below 1,000 ft AGL.

Exception: *EX81/21 (32) allows observers on flight test and proficiency check flights who are not flight crew members subject to the conditions set out in* appendix D.

Image | CASA

Causing or simulating engine failures – rotorcraft

Single-engine rotorcraft – engine not to be shut down (91.755)

You must ensure the engine of a single-engine rotorcraft is not shut down during a flight.

Single-engine rotorcraft – engine failure not to be simulated and autorotation of main rotor system not to be initiated in IMC (91.760)

You must ensure that the simulation of an engine failure or the initiation of an autorotation is not carried out during a flight in IMC.

Single-engine rotorcraft – simulating engine failure or initiating autorotation of main rotor system at night (91.765)

You may only simulate an engine failure or initiate an autorotation at night when taxiing or hovering below the hover height for the surface specified in the rotorcraft's flight manual, or when at 1,000 ft AGL or above, and:

- you hold a flight instructor rating, flight examiner rating or other authorisation which allows you to simulate an engine failure or initiate autorotation
- the flight is for pilot training, checking or testing
- only flight crew members are carried
- you brief a pilot under instruction before the simulation or autorotation and then supervise the simulation or autorotation
- the simulation or autorotation is in VMC
- the power termination of the autorotation is initiated so that full power is available before the rotorcraft goes below 100 ft AGL
- the autorotation is terminated using a power recovery termination or a baulked approach and climb out
- the simulation or autorotation is at an aerodrome with omnidirectional runway lighting.

> **Exception:** *EX81/21 (33) allows observers on flight test and proficiency check flights who are not flight crew members subject to the conditions set out in* appendix D.

Multi-engine rotorcraft – engine not to be shut down at certain altitudes in IMC or at night (91.770)

You must ensure an engine is not shut down in a multi-engine rotorcraft, during a flight in IMC or at night unless the rotorcraft is at or above the LSALT for the route or route segment.

> *Nothing prevents the shutting down of an engine in an emergency.*

Multi-engine rotorcraft – simulating engine failure in IMC or at night (91.775)

You must not simulate an engine failure in a multi-engine rotorcraft during a flight in IMC or at night unless:

- you hold a flight instructor rating, flight examiner rating, or other authorisation for simulating an engine failure
- the flight is for pilot training, checking or testing
- only flight crew members are carried, and
  - you brief a pilot under instruction before the simulation and then supervise the simulation
  - the simulation is carried out in accordance with the procedures specified in the rotorcraft's flight manual (if any)
  - if the AFM does not specify procedures, and the regulations require the rotorcraft operator to have an operation's manual, then the simulation must be in accordance with those instructions.

A rotorcraft flown in IMC, must be established at or above the lowest safe altitude for the route or route segment.

For a rotorcraft flown at night in VMC:

- the aircraft must be flown within the circling area of an aerodrome determined in accordance with the method specified in the AAI
- in the climb during take-off, the simulation must be initiated before the take-off decision point, or above 500 ft AGL
- after the climb during take-off, the simulation must be initiated at or above 1,000 ft AGL.

Exception: *An engine failure can be simulated in a multi engine rotorcraft at night outside the circling area of an aerodrome if:*

- *NVIS is being used as the primary means of terrain avoidance by you and any pilot undergoing training*
- *the NVIS is used in accordance with the NVIS regulations*
- *only crew members necessary for the flight are on board - this includes sufficient crew members if more than one kind of crew member is undergoing training, checking or testing (EX81/21).*

Exception: *EX81/21 (34) allows observers, who are not members of the flight crew, to be on board during flight tests and proficiency check flights provided the conditions set out in* appendix D *are met.*

4. Crew member obligations

Crew members to be fit for duty (91.520)

A crew member must not perform a required duty that is related to the safety of the aircraft, the persons, or cargo on the aircraft if they are or are likely to be unfit.

An operator must not assign a crew member to duty for a flight if they have reasonable grounds to believe the crew member is or is likely to be unfit to perform a duty related to the safety of the aircraft, or the persons or cargo on the aircraft.

A crew member must not commence their duty if they have consumed alcohol within 8 hours of the flight beginning, or if an alcohol test reveals that they have exceeded the permitted level of alcohol specified in Part 99.

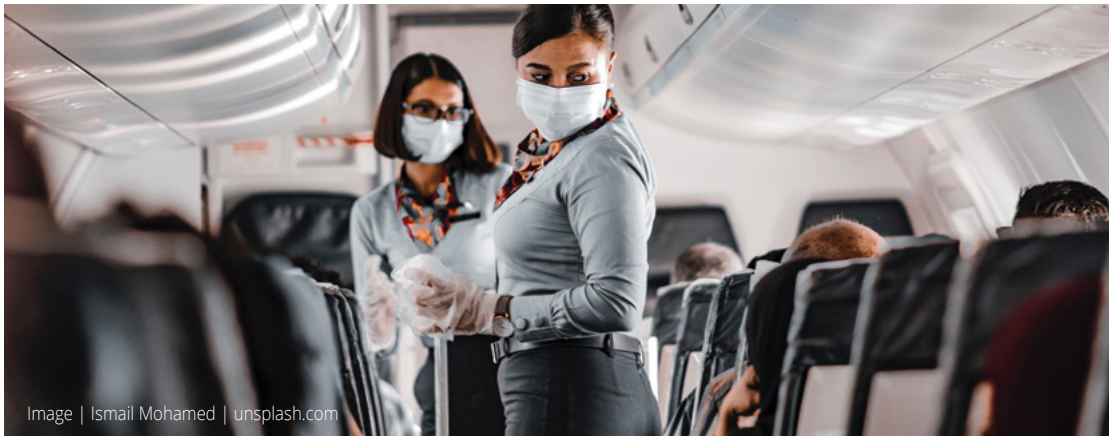
The permitted level of alcohol is less than 0.02 grams of alcohol in 210 litres of breath.

Certain aviation organisations are required to implement drug and alcohol management plans which apply to all employees performing or who are available to perform, safety sensitive aviation activities. CASA may conduct random tests for alcohol and other drugs in anyone performing a safety sensitive aviation activity whether for an organisation or in a private capacity.

A crew member must not consume alcohol while onboard the aircraft.

A crew member is, or is likely to be, unfit to perform a duty if the crew member is:

- fatigued to the extent that their ability to safely perform the duty is reduced, or likely to be reduced, or
- under the influence of a psychoactive substance to the extent that their ability to safely perform the duty is reduced, or likely to be reduced.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Being fit to fly is a responsibility that not only rests with the operator (where applicable) but with the individual. Determining your fitness to fly requires sound and honest judgement. Illness, medication, illicit drugs, alcohol, stress, fatigue, lack of food and dehydration may affect your ability to operate safely (See the Fatigue Management plain English guide).

Crew safety during turbulence (91.535)

Before flight, for other than flight crew, you must implement procedures to protect the crew and limit (or stop) their duties in turbulence or whenever turbulence is expected.

A pre-flight briefing of the crew to set out the procedures for crew safety in turbulence would satisfy this requirement. AOC or certificate holders would be expected to also set out their procedures in their operating manuals.

Seating for crew members other than flight crew members (91.555)

A crew member (other than flight crew members) must occupy a crew station and wear and securely fasten the seatbelt and shoulder harness provided during take-off, landing and at any other time you direct.

Exception: *Where the pilot gives a direction during turbulence, a crew member may occupy a seat other than a crew member's seat (this could be a passenger seat) provided any seatbelt or shoulder harness at that seat is worn and securely fastened.*

Cabin crew – when required (91.820)

An aircraft carrying 20 or more passengers must carry a cabin crew member. However, if the flight crew includes 2 pilots, then an aircraft may carry up to 22 passengers without a cabin crew member, provided there are no more than either 19 adults or 19 children.

Exception: *Parachuting activity flights (to which Part 105 applies) do not have to carry a cabin crew member.*

Cabin crew – number (91.825)

If a cabin crew member is required under 91.820, then the aircraft must carry one cabin crew member for each 50, or part of 50, passengers carried on the flight.

Cabin crew – knowledge of emergency and safety equipment and procedures (91.830)

If a cabin crew is required to be carried, they must be competent to:

- operate and use the emergency and safety equipment on the aircraft relevant to their duties
- implement emergency evacuation procedures.

If a cabin crew member is carried when not required and their duty is to provide hospitality to the passengers, they do not have to have knowledge of the emergency and safety equipment procedures. However, operators may choose to train cabin crew members and assess their knowledge of and competence in carrying out the emergency procedures.

Operation of portable electronic devices by crew members (91.175)

A crew member must not operate a portable electronic device at any time during a flight if it is likely to distract them from performing their duties.

Crew – provision of alcohol (91.785)

A crew member must not provide alcohol to a passenger if they reasonably believe the passenger is affected by one or more psychoactive substances to the extent that their behaviour may present a hazard to the aircraft, or to a person onboard.

Crew members – power of arrest (91.225)

You, or a crew member you authorise, may without a warrant, arrest a person on the aircraft to ensure the safety of the aircraft, its passengers, crew or cargo (or otherwise for the purposes of the Act or the regulations).

This is subject to your belief or a crew member's belief that the person is committing, attempting to commit, is about to commit, has committed or has attempted to commit, an offence against the Act or the regulations in relation to the aircraft.

You must ensure that, as soon as practicable after the flight ends, the arrested person is delivered into the custody of the police. If the flight ends overseas, you must deliver the person arrested to that country's equivalent law enforcement agency.

Note: See also sections 3ZC (use of force in making arrest) and 3ZD (persons to be informed of grounds of arrest) of the *Crimes Act 1914*.

This regulation provides power to a crew member to arrest a person with your authority. However, the power must be used only within the prescribed limitations of the regulation.

5. Safety of persons and cargo

Offensive or disorderly behaviour on aircraft (91.525)

A person must not behave in an offensive or disorderly manner which as a result may endanger the safety of the aircraft or persons onboard.

The operator or a crew member may refuse to allow a person to board an aircraft if they reasonably believe the person is likely to behave in an offensive or disorderly manner which could endanger the safety of the aircraft or persons onboard.

A person is taken to behave in an offensive or disorderly manner if they:

- assault, intimidate or threaten another person (this may be verbal or physical, and whether or not a weapon or object is used), or
- intentionally damage or destroy property.

When smoking is not permitted (91.530) (s37 Air Navigation Regulations 2016)

A person must not smoke at any time while onboard an Australian domestic air transport flight that is carrying passengers.

A person must not smoke at any time while onboard an Australian international air transport flight (other than a freight-only flight).

A person must not smoke on a Part 103 aircraft at any time.

For any other operation, a person must not smoke on an aircraft:

- during take-off or landing
- in the aircraft's toilet
- at any time you have directed a person not to smoke.

A person has been directed when the 'no smoking' sign in the cabin is illuminated, or at any time a permanent 'no smoking' sign is displayed.

Smoke or smoking includes using electronic cigarettes.

Means of passenger communication (91.540)

You and the operator must ensure that where the design or configuration of the aircraft will not allow all seats (and berths) to be seen from your seat, the aircraft is be fitted with a means to communicate with all passengers during all phases of the flight, including emergencies.

Persons not to be carried in certain parts of aircraft (91.200)

Unless you or the operator hold an approval to do so, a person must not be carried ***on or in:***

- a part of an aircraft that is not designed to carry crew members or passengers, or
- anything attached to an aircraft.

> **Exception:** *This does not apply to:*
>
> - *the temporary carriage of a crew member in a part of the aircraft not designed to accommodate crew members or passengers provided:*
> - *it is for doing things for the safety of the aircraft, or any persons or cargo carried in it, or*
> - *goods or stores are carried in that part of the aircraft and there are proper means of access for crew members to the goods or stores*
> - *an aircraft being used to make a parachute descent and the requirements detailed in the Part 105 MOS are met.*

Seating for persons on aircraft (91.545)

The pilot and the operator must not assign a seat (or berth) that is not fitted with a seatbelt or shoulder harness.

> **Exception:** *This requirement does not apply where circumstances prescribed in the MOS apply.*

Medical transport operations, rescue operations and certain police operations (MOS 20.01)

For a medical transport operation, a rescue operation or a special operations group (SOG) operation, the following persons must wear a safety harness and restraint strap during flight:

- crew members
- medical patients
- SOG members
- persons who have been rescued.

> **Exception:** *If it is not practicable in the following circumstances for a person to wear a safety harness and restraint strap they can be restrained as described below.*
>
> - *if the patient is an infant and the medical or nursing authority responsible for conducting the transport considers that wearing a safety harness or restraint strap is detrimental to the child's medical condition or the general situation inside the aircraft – they may be carried inside an incubator, humidicrib, or other neonatal transport unit in accordance with the procedures in the operations manual, or*
> - *if the patient is an infant or a child aged 5 years old or less, and the medical or nursing authority responsible for conducting the transport considers that wearing a safety harness or restraint strap is detrimental to the child's medical condition or the general situation inside the aircraft the child may be carried in the arms or on the lap of an adult occupying a seat in accordance with the procedures in the operations manual, or*
> - *if a person has been rescued, they need to be restrained by a rescue harness or other rescue device that is compliant with, or approved under, Part 21 of CASR. This must be in accordance with the procedures in the operations manual*
> - *if the person is a SOG member, where it is considered by the police or Australian Defence Force authority, responsible for the SOG operation, that it is detrimental to the operation, they can be otherwise safely restrained, in accordance with the procedures in the operations manual taking into account the nature and characteristics of the operation.*

You must be satisfied the conditions have been complied with as described under the exceptions.


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Restraint of infants and children (91.560)

Where a passenger is responsible for a child or infant and a direction is given to fasten seatbelts or shoulder harnesses (as the case requires), they must ensure that the child or infant is restrained in accordance with the standards prescribed in the MOS.

Infant and child seatbelts as restraints (MOS 20.03)

An infant is restrained if they are carried in the arms or on the lap of an adult and the infant is restrained for example, using a supplemental loop belt also referred to as an infant seatbelt.

The adult passenger's seatbelt is not to be fastened around the infant.

A child is restrained if they occupy a seat of their own and are restrained by the seatbelt.

A maximum of 2 children (neither can be infants) may sit side by side on one seat, provided their combined weight does not exceed 77 kg and the seatbelt, when fastened, restrains both children in the seat.

A child who has not reached their 13th birthday and weighs less than 16kg may be restrained as an infant as described above provided:

- it is at your request or that of the operator or CASA
- the adult responsible for the child produces a signed and dated certificate from a registered medical doctor that states the child has serious medical condition which prevents the child from sitting upright unaided and is fit to travel.

A supplemental loop belt provides an additional seatbelt with a stitched loop through which the adult lap belt is passed. The seatbelt is fastened around the adult, and the supplemental loop belt is then separately fastened around the infant (see Figure 2). See also AC 91-18 Restraint of infants and children.

Figure 2: Supplemental loop belt

Child restraint systems that are not seatbelts (MOS 20.04)

An infant or child (person) is restrained when:

- they are restrained by an approved child restraint system
- the age, height and weight of the person using the system, is within the range specified by the manufacturer of the system
- the system is used in accordance with the manufacturer's instruction and secured so as not to be a hazard to the person using the system, or to any other person
- a suitable adult is responsible for the person using the system and
- the suitable adult is seated in the seat closest to the seat on which the person restraint system is installed, and is competent to install the system, and secure and release the person.

An aviation child restraint system means, a child restraint system that complies with or is approved under CASR Part 21. Reference to a shoulder harness includes a child restraint system.

An approved child restraint system means a child restraint system meeting the requirements of one of the following:

- an automotive child restraint system
- an aviation child restraint system.

Note: To avoid doubt, an infant sling is not a suitable child restraint system.

An automotive child restraint system means a child restraint system that meets the requirements of one of the following:

- AS/NZS 1754:2004 Child restraint systems for use in motor vehicles
- Federal Motor Vehicle Safety Standards (FMVSS) No. 213
- Canadian Motor Vehicle Safety Standard (CMVSS) No. 213
- European Safety Standard requirements of ECE Regulation 44.

Note: See definitions for how the AS/NZS dating system applies.

Note: Operators and pilots should note that in securing a child restraint system in accordance with the manufacturer's instructions, particular attention must be paid to whether the system requires securing by a lap belt, or a shoulder belt, or a combination of both. Many aircraft have only lap belts fitted to the aircraft seats, but some child restraint systems are required by the manufacturer to be secured by both a lap belt and shoulder belt. In such aircraft, the system may not be able to be properly secured.

Passengers – safety briefings and instructions (91.565)

Before take-off, you must ensure that all passengers are given a safety briefing and instructions.

> **Exception:** *The safety briefing and instructions may be omitted for a passenger who has been carried and briefed previously if it can be reasoned that the same safety briefing is not necessary in the circumstances.*

Passenger safety briefings and instructions (MOS 20.06)

The passenger safety briefing and instructions must cover the following:

- the rules about smoking during the flight and the places on the aircraft where smoking is prohibited
- when seatbelts must be worn and how to use them
- the requirement that seat backs must be in the upright position (or otherwise, if permitted by the AFM) during take-off and landing
- any requirement that attachments to the seat (for example, tray tables and footrests) must be stowed, during taxiing, take-off and landing
- how and when to adopt the brace position
- where the emergency exits are and how to use them
- the location of evacuation slides (if any) and how to use them
- if emergency oxygen is carried for the flight – how and when to use the emergency oxygen
- how and where to stow, or otherwise secure, carry-on baggage and personal effects, and the times during the flight when these items must be stowed or secured
- if the aircraft is fitted with escape path lighting – where the lighting is and how to use it

Refer to CASA guidance regarding passenger safety information available in AC 91-19 Passenger safety information.

- if survival equipment is carried, and it is intended that a passenger is to use the equipment – where the equipment is carried and how to use it
- if life jackets or life rafts are carried – where the jackets or rafts are located and how to use them
- the requirement that life jackets must not be inflated inside the aircraft
- the limitations imposed on the use of portable electronic devices during different stages of the flight
- the requirements that:
  - passengers seated in emergency exit rows must be willing and able to operate the exit in the event of an emergency, and
  - they must not have a condition that will cause them to obstruct the exit or hinder an emergency evacuation
- when a passenger is carried who requires assistance – the nature of the assistance required in the event of an emergency, which emergency exit to use and when to use it
- when a passenger is seated in a pilot seat – that they do not manipulate or interfere with the controls
- for a jump aircraft – the physical location(s) within, or on, the aircraft that the passenger must occupy during the flight to ensure the aircraft is operated within the aircraft's weight and balance limits during the flight.

The regulation provides a list of requirements that are not applicable to all aircraft types and operations. You and the operator will need to consider what is applicable for the aircraft to ensure compliance with the regulation.

Passengers – safety directions by pilot in command (91.570)

Before taxiing, taking off or landing you must direct passengers to fasten their seatbelt or shoulder harness and if:

- the back of the seat (or berth) in which the passenger is sitting is adjustable – to ensure that the seat back is in an upright position, or other position permitted by the AFM
- there are attachments to, or for, the seat (including a tray table or footrest) – to stow the attachments or position them as permitted by the AFM.

During the flight, if you believe it is necessary for the safety of the passengers, you must direct them to fasten their seatbelt or shoulder harness. Switching on an illuminated fasten seatbelt sign is a direction.

Exception:

- *a direction need not be given to a person whose health may suffer by being restrained by a seatbelt if you agree the person is otherwise safely restrained*
- *a direction need not be given to a person who is ill or incapacitated if you agree to the passenger not adjusting their seat (or berth) and the person is otherwise safely restrained and will not affect the safety of other passengers.*

Passengers – compliance with safety directions (91.575)

A passenger must comply with safety directions given by a pilot (see 91.570).

Passengers – compliance with safety instructions by cabin crew (91.580)

A cabin crew member may give an instruction to a passenger relating to the safety of the aircraft, or a person onboard. A passenger must comply with a cabin crew member's instruction.

Passengers – alcohol (91.780)

A passenger must not consume alcohol unless it has been provided by a crew member or a pilot.

Prohibiting person affected by psychoactive substances from boarding (91.790)

The operator or any crew member may prohibit a person from boarding if, on reasonable grounds, they believe that the person is affected by a psychoactive substance to an extent that may present a hazard to the aircraft or to a person onboard.

Restraint and stowage of cargo (91.585)

You and the operator must ensure any cargo carried is:

- restrained using approved equipment (see 21.305 or 21.305A), or
- securely stowed in a place designed and approved for that purpose, under Part 21 – *Certification and airworthiness requirements for aircraft and parts*, or
- for equipment of a foreign-registered aircraft restrained or stowed in accordance with the law of the aircraft's state of registry or state of the operator.

Exception: *This regulation does not apply in relation to the following kinds of cargo, which must be restrained or stowed in accordance with another regulation:*

- *an assistance animal carried in a passenger cabin (see 91.620)*
- *carry-on baggage (see 91.590)*
- *passenger service or galley equipment (91.595)*
- *cargo to be dropped from the aircraft during dropping operations (see 91.190).*

Restraint and stowage of carry-on baggage (91.590)

You must ensure that carry-on baggage is securely stowed when taking off, landing, or at any other time you direct.

It must be stowed in a place designed and approved under Part 21 *Certification and airworthiness requirements for aircraft and parts*, (or for a foreign aircraft, under the law of the state of registry or state of the operator) or otherwise securely restrained.

When restraining and stowing carry-on-baggage, you should consider the following:

- *each item should only be stowed in a location in the cabin capable of restraining it*
- *under-seat stowage should not be used unless there is a restraint bar*
- *items must not be stowed in lavatories or against bulkheads*
- *items must not be placed in such a way that they prevent overhead lockers from being latched; or where they will impede access to emergency equipment*
- *before take-off or landing or when in turbulence, checks shall be made to ensure items will not cause injury if they fall or impede an emergency passenger evacuation.*

Restraint and stowage of certain aircraft equipment (91.595)

Passenger service and galley equipment must be restrained and securely stowed when the aircraft is taking off or landing, or at any other time you direct.

Carriage of cargo – general (91.600)

You and the operator must not allow cargo to be carried in a place:

- where it could damage, obstruct or cause the failure of a control, electrical wiring, or a pipeline of the aircraft, or any other equipment that is essential to the safe operation of the aircraft
- where the cargo weight exceeds the load limitations for the floor structure or any other load-bearing components of that place, as set out in the aircraft flight manual or a placard on the aircraft
- where it obstructs an aisle except for passenger service equipment or galley equipment in an aisle on a temporary basis while in use
- where an emergency exit is obstructed or access restricted unless CASA has given approval.

Carriage of cargo – cargo compartments (91.605)

You and the operator of an aircraft – where the AFM or regulations require more than 1 flight crew member and that has a cargo compartment designed so that a crew member would need to enter the compartment to extinguish a fire – must ensure the cargo is loaded in a way that allows a crew member to reach all parts of the compartment with a hand-held fire extinguisher.

Carriage of cargo – unoccupied seats (91.610)

You and the operator must not allow cargo to be carried on an unoccupied seat if it weighs more than 77 kg unless the seat manufacturer allows a greater weight. The cargo and the means of restraint must not interfere with the safe operation of the aircraft.

Carriage of cargo – loading instructions (91.615)

You and the operator may only allow cargo to be carried where a placard with instructions for the carriage of cargo is in place.

> **Exception:** *This regulation excludes carry-on baggage weighing less than 9 kg stowed under a seat, or in a place designed for that purpose, or cargo that is carried on an unoccupied seat (91.610).*

Unauthorised travel or placing cargo on aircraft (91.060)

A person may only travel or place cargo on an aircraft if you or the operator have given consent to do so.

Carriage of animals (91.620)

A person may only bring an animal onto an aircraft with your permission.

Before you give permission, all reasonable steps must be taken to ensure carrying the animal will not adversely affect aviation safety.

> **Exception:** *A person may bring an animal onto an aircraft without your permission provided they have the permission of the air transport or aerial work operator. The operator may give the person permission provided you and the operator have taken reasonable steps to ensure that the carriage of the animal does not have an adverse effect on the safety of air navigation (EX81/21).*

Despite anything in the *Disability Discrimination Act 1992*, the carriage of an assistance animal (within the meaning of the *Disability Discrimination Act 1992*) can be refused if you or the operator reasonably believe that it may have an adverse effect on aviation safety.

You are responsible for ensuring the safety of the flight when an animal is carried on an aircraft. It applies to a small private aircraft through to an air transport aircraft and each circumstance will require different considerations.

In general, carrying an animal is no different to carrying cargo. The animal must not block or impede access to or egress through an emergency exit. A large animal should always be secured so as not to damage or affect the balance of the aircraft in flight. A small or medium-sized animal carried in the cabin would normally need as a minimum to be restrained during take-off and landing and in turbulence.

When giving permission, you may need to consider: the type of animal and how it is carried, contained and restrained, its reaction to noise and being out of its natural environment, nuisance to other passengers, distraction to flight crew, and how excrement or fluids will be contained.

An AOC holder's operations manual should provide instructions for carrying animals, including any limitations or requirements the operator expects personnel to follow.

Possessing firearm on aircraft (91.160)

A person may only carry a firearm on a prescribed aircraft with the pilot or operator's consent. Prescribed aircraft are aircraft used in:

- a regular public transport operation
- an air service in which a jet aircraft is used
- an air service in which an aircraft with a certified MTOW greater than 5,700 kgs is used.

Passengers on the flights listed above who wish to carry or transport firearms, must seek consent from the airline or operator.

Exception: *The above does not apply if the firearm is being carried:*

- *in an aerial work operation that complies with CASR Part 138*
- *in compliance with other laws of the Commonwealth that deal with firearms and aircraft. See Division 3 of Part 4 of the Aviation Transport Security Act 2004, and section 23 of the Crimes (Aviation) Act 1991.*

Discharging firearm on aircraft (91.165)

No person may discharge a firearm while onboard an aircraft unless they are permitted to do so under the *Aviation Transport Security Act 2004,* the *Crimes (Aviation) Act 1991* or CASR Part 138.