



Cabin Safety Bulletin

CSB 00-018 Issue 2 – Managing passenger comfort devices

1. Purpose

This bulletin provides operator guidance in relation to carriage of passenger comfort devices.

This bulletin describes an example of an acceptable means, but not the only means, of demonstrating compliance with regulations and standards. On its own this bulletin does not change, create, amend or permit deviations from regulatory requirements, nor does it establish minimum standards.

A cabin safety bulletin is an advisory document that alerts, educates and makes recommendations about cabin safety matters. Recommendations in this bulletin are not mandatory.

2. Target audience

This document applies to all operators of Australian registered aircraft and should be read in conjunction with the following CASR provisions.

Table 1: CASR and MOS references

Provision	Civil Aviation Safety Regulation (CASR)	Manual of Standards (MOS)
Carry-on baggage	121.255	Part 121 of the MOS Chapter 8, Division 2
Aisles to remain unobstructed	121.260	—
Stowage of passenger service equipment etc.	121.265	—
Passengers in emergency exit row seats	121.270	—
Safety briefing cards	121.280	Part 121 of the MOS Chapter 8, Division 1
Safety briefings, instructions, and demonstrations	121.285	Part 121 of the MOS Chapter 8, Division 2
Additional safety briefing for passengers in emergency exit rows	121.290	—
Seating for persons on aircraft	91.545	Part 91 of the MOS Chapter 20, Division 20.1
Seating for crew members other than flight crew members	91.555	—



Provision	Civil Aviation Safety Regulation (CASR)	Manual of Standards (MOS)
Restraint of infants and children	91.560	Part 91 of the MOS Chapter 20, Division 20.2
Passengers – safety directions by pilot in command	91.570	Part 91 of the MOS Chapter 20, Division 20.2
Passengers – compliance with safety instructions by cabin crew	91.580	—

3. Legislative requirements

Civil Aviation Safety Regulation (CASR) 121.260 requires that loose articles in the cabin of an aircraft, shall be stowed to avoid the possibility of injury to persons or damage to the aircraft through the movement of such articles caused by in-flight turbulence or by unusual accelerations or manoeuvres.

The CASR provisions also require that crew members and each passenger shall occupy a seat of an approved type during take-off and landing; during an instrument approach; when the aircraft is flying at a height less than 1000 feet above the terrain and in turbulent conditions.

4. Background

In an effort to improve comfort inflight, passengers increasingly are making attempts to bring onto the aircraft innovative devices such as knee defenders,¹ cabin case seat extender,² leg hammocks,³ and baby hammocks.⁴ While the use of some of these devices may not contravene specific safety regulations, they may pose additional safety hazards in the cabin during their operation.

Consequently, a number of operators have developed specific criteria as to what comfort devices are acceptable for carriage inflight. This criterion is not standardised and may differ between operators in relation to comfort devices permitted for carriage and those classified as prohibited.

5. Acceptance criteria

Operators yet to develop policy, process and procedures regarding acceptance, use and stowage of these devices should:

- identify comfort devices passengers attempt to, or successfully bring on board when travelling with small children by way of trend analyses through occurrence report submission
- identify comfort devices being marketed to passengers travelling with infants/children
- conduct an evaluation of the safety of the comfort device
- ascertain the suitability and compatibility of the comfort device with aircraft componentry and approved stowage

1 Knee defenders prevent the seat in front of the passenger from reclining

2 Cabin case seat extenders provide support for infant/child during flight allowing them to sleep

3 Leg hammocks attach to the seat in front to provide a foot/leg rest

4 Baby hammocks provide additional comfort for lap-held infants



- conduct a risk assessment as to any safety implications for both cabin crew members and passengers
- conduct a risk assessment as to the impact on existing procedures, for example, encountering turbulence or impeding egress to emergency exits.

Operators should determine their policy on acceptance and use of these devices by means of a safety risk assessment process, an example of which appears below:

Table 2: Example of safety risk assessment process

Hazard (adverse event)	Threat (potential cause)	Consequence (outcome/risk)
Overheat or ignition of seat components	Device obstructs cooling/ventilation grilles or systems	Cabin fire
Cabin crew prevented from carrying out firefighting procedures	Device obstructs access to overheating seat components or in-flight entertainment system	Uncontained cabin fire
Cabin crew unable to access emergency equipment	Design of device does not allow removal of lithium battery for firefighting procedures	Uncontained cabin fire
Hypoxia following depressurisation incident	Device obstructs access to emergency drop down oxygen masks Device prevents passenger from identifying, locating, or donning oxygen masks when dropped	Incapacitated passenger/crew
Bursting of device following depressurisation incident	Device is inflatable, with no emergency release valve	Injury to passenger
Discomfort to other passengers	Device prevents the use of other passengers' seat functions	Disputes between passengers and unruly behaviour
Damage to seat components	Device imposes abnormal weight/size loads to seat components such as tray table, headrest and armrest	Increased maintenance and repair costs
Loose items in cabin during turbulence	Device unable to be stowed quickly and safely during turbulence	Injury to passengers or crew
Inability to wear seatbelt fastened effectively at all times, or during turbulence inflight	Device prevents correct use of seatbelt or encourages incorrect positioning around neck or legs	Injury to passenger
Exceedance of limitations on carriage of lithium batteries in the cabin	Device contains lithium batteries which exceed permitted quantities or rating	Noncompliance with regulation and increased risk of cabin fire involving lithium battery

Source: Risk Assessment Sample - IATA Cabin Operations Safety Best Practices Guide 6th Edition 2020



6. Considerations

Operator considerations in the development of documented procedures and training for crew members, other operational personnel, together with the release of passenger guidelines could include:

Cataloguing of comfort devices

- Definition of comfort devices
- Explanatory statement pertaining to comfort devices permissible for carriage and those that are prohibited
- Photographic images and schematics of comfort devices that are acceptable for carriage, including positioning of these items across aircraft seating plans.

Aircrew responsibilities

- Pilot in command responsibilities in relation to the determination of comfort devices that are acceptable or unacceptable for carriage, where doubt exists
- Specific crew member assignments to ensure:
 - o appropriate passenger briefings are conducted prior to utilisation detailing phases of flight when the comfort device can be used, for example, use of comfort device during illumination of the seat belt sign
 - o verification that the comfort device is not located in a position that obstructs the access to, or use of, any required emergency or regular exit, or the use of the aisle between the crew and the passenger compartment, or is located in a position that obscures any passenger's view of the 'seat belt' sign, 'no smoking' sign or placard, or any required exit sign
 - o verification that the comfort device is not installed in a position that restricts access to, or use of any required emergency equipment
 - o stowage of the device in an approved cupboard or locker or underseat, during take-off, landing or during movement on the surface
 - o verification of appropriate placement restrictions of the comfort device in the cabin, for example, may only be used at a window seat on a single aisle aircraft
 - o verification that the comfort device does not impose any load on seats or in the floor structure that exceeds the load limitation for those components
 - o verification that the comfort device does not interfere with, and/or potentially damage aircraft componentry/structural integrity, for example, seat recline or attachment points that require use of tray table arms
 - o ensure the positioning of an inflation valve is accessible to reduce the deflation time of an item, for example, in the event of an inflight emergency or preparation for landing
 - o any safety implications such as the potential for harm or injury to the passenger using the device or adjacent passengers
 - o ensuring the comfort device is packaged or covered to avoid possible injury to passengers
 - o seat belt use and fitment is possible and effective
 - o no interference with a passenger seated adjacent to, or in front of the comfort device
 - o action to be taken by cabin crew in the event a prohibited device is being used in flight
 - o action to be taken by cabin crew in the event an unfamiliar device is being used in flight.



7. Decision tool – comfort devices

The below matrix details criteria that could be adapted into a checklist to support cabin crew decision making should a comfort device present which has not been included in operational policy and procedures manuals.

Table 3: Example of criteria for adaption into a checklist

Question	Response and decision	
	Yes	No
Is the device within the operator’s cabin baggage allowance (weight and dimension)?		Not permitted
Does the device allow the proper use of the seatbelt?		Not permitted
If the device is inflatable; does it have a quick release valve or other method to equalise pressure during a cabin depressurisation incident?		Not permitted
Does the device interact with the user’s seatbelt in a manner which prevents or hinders its normal operation?	Not permitted	
Does the device contain lithium-ion batteries with a watt-hour rating of 100 watt-hour or more? ⁵	Not permitted	
Does the device adversely affect the use of another passenger seat; including access to the aisle, seat recline, use of tray table, IFE?	Not permitted	
Does the device, when attached to any part of the seat or cabin component, impose heavier than normal loads to the seat or cabin component?	Not permitted	
Does use of the device obstruct cooling/ventilation systems, or does it obstruct decompression vents in floor or side wall area to the point of preventing air flow?	Not permitted	
Could the device become loose and cause injury to others during turbulence?	Not permitted	
Does use of the device prevent rapid access to emergency oxygen masks for any person during a depressurisation event?	Not permitted	
Does use of the device reduce situational awareness which could prevent a person from being able to take appropriate action in the event of an emergency situation?	Not permitted	
Does use of the device prevent access to electrical systems or components by cabin crew during an overheat, smoke or fire event?	Not permitted	

⁵ Passengers may carry a device containing a lithium-ion battery greater than 100Wh and no greater than 160Wh with the approval of the operator



8. Documentation

- Map the developed procedural information to existing manual provisioning to ensure compatibility
- Hazard occurrence reporting criteria to include reference to comfort devices attempted to be brought on board, used in-flight or removal from stowage that may cause injury to passengers or crew members
- Safety awareness training for aircrew and ground operational personnel as it relates to comfort devices
- Instruction to crew members relating to the stowage and removal of a comfort device from an approved stowage in-flight or after landing to prevent injury to themselves or other passengers.

9. Information dissemination

- Communication methods relating to comfort devices permitted or prohibited for crew members, other operational personnel and passengers
- Monitoring of new product releases and release of requisite communication of comfort devices that are permitted or prohibited for awareness of crew members, other operational personnel and passengers
- Aimed at passengers relating to the removal of a comfort device from an approved stowage in-flight or after landing to prevent injury to themselves or other passengers.

10. Resources

[Part 121 of the Civil Aviation Safety Regulations 1998](#) Australian air transport operations

[Part 121 Manual of Standards](#)

[Part 121 Australian air transport operations – larger aeroplanes AMC- GM](#)

[Multi - Part AC 121-08, AC133-08 and 135-06 Carry-on baggage](#)

[Part 91 of the Civil Aviation Safety Regulations 1998](#)

International Air Transport Association (IATA) *Cabin Operations Safety Best Practices Guide* 6th Edition, January 2020. Section 7 Operator Policies.

11. Enquiries and additional information

Enquiries about the content of this Bulletin should be directed to a CASA Cabin Safety Inspector via CASA general enquiries 131 757.