

Safety Information Bulletin

Operations - Aerodromes

SIB No.: 2025-03

Issued: 27 May 2025

Subject: Passenger and Crew Awareness on the Risks of Lithium Batteries

Ref. Publications:

- Commission Regulation (EU) No [965/2012](#) ('Air Operations Regulation') of 05 October 2012.
- Commission Regulation (EU) No [139/2014](#) of 12 February 2014.
- Commission Regulation (EU) No [2015/640](#) of 23 April 2015.
- ICAO [Annex 14](#) - Aerodromes - Volume I - Aerodromes Design and Operations, 9th Edition dated July 2022.
- EASA Certification Specifications and Acceptable Means of Compliance for Large Aeroplanes ([CS-25](#)) dated 15 December 2023.
- ICAO Manual 'Technical Instructions for the Safe Transport of Dangerous Goods By Air' ([Doc 9284](#)) ('Technical Instructions') 2025-2026 Edition.
- ICAO Manual 'Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods' ([Doc 9481](#)) 2025-2026 Edition.
- EASA SIB [2022-08](#) Mitigation of Flight Deck Fires Originating from Lithium Batteries that are not Part of the Aircraft Design dated 12 October 2022.
- ICAO Electronic Bulletin [EB 2017/23](#) (AN 11/2.12) 'Portable Electronic Devices' dated 31 March 2017.
- Federal Aviation Administration Advisory Circular [AC 120-80B](#) 'Firefighting of General and High-Energy In-Flight Fires' dated 16 March 2023.

Applicability:

Aircraft operators, aerodrome operators, ground handling service providers, National Competent Authorities (NCAs).

Description:

The increase in the number of occurrences involving lithium batteries carried by passengers on board commercial passenger aircraft has resulted in the need to look for different ways to raise passenger awareness. The number of portable electronic devices (PED) passengers typically travel with, has increased to 4 or 5 items per passenger. Some PEDs are equipped with powerful lithium batteries that are not allowed under the current regulations. This could be the case of personal transportation devices (e.g. scooters, hoverboards, etc.) and drones, for example.

Particularly, transportation devices are considered subject to the general restrictions applicable to PEDs. Besides the risks that lithium batteries normally pose, there is a higher risk with these devices as some of them may not follow high quality standards. Moreover, under certain conditions, these devices can overheat and catch fire or even explode. Some aircraft operators

This is information only. Recommendations are not mandatory.



have thus prohibited their transport, putting in place more restrictive measures than those established by the ICAO 'Technical Instructions'. Transportation devices shall not be mistaken with *mobility aids*, which are subject to specific limitations contained in Part 8 of the 'Technical Instructions'.

Tests performed by the Federal Aviation Administration in 2017¹ showed that, in case of thermal runaway of the battery of a PED (e.g. a fully charged laptop) carried in a checked baggage together with some normally permitted hazardous materials, such as cosmetic items, there is a low chance that the cargo compartment fire protection systems could contain the resulting fire. The risk of an uncontrolled cargo fire would be very high for a Class D² cargo compartment, and significant for a Class C³ cargo compartment (as defined in CS 25.857). The risks of transporting PEDs in baggage, including phones, laptops or tablets, have been further studied by EASA⁴, confirming the Agency's strong recommendation to carry PEDs containing lithium batteries in the passenger cabin, in order to enable the crew to react expeditiously in case a PED battery fire occurs. In addition, EASA Opinion No 04/2019 led to the introduction of a requirement (Point 26.157) into Annex I (Part-26) of Regulation 2015/640, mandating the conversion of Class D compartment of certain larger aeroplanes used in commercial air transport into Class C or Class E compartment, by 26 August 2023.

Other items that have proven to be particularly dangerous are e-cigarettes and power banks. E-cigarettes can be easily activated and raise their temperature quickly, igniting anything placed nearby. Power banks are not PEDs - they are spare batteries and, thus, the restrictions for spare batteries shall apply. Spare batteries, including power banks, are forbidden in the checked baggage.

The 'Air Operations Regulation' and the ICAO 'Technical Instructions' require that both aircraft operators and ground handling service providers inform passengers on dangerous goods that are forbidden on board and on the limitations and restrictions related to the allowed items. Passengers should acknowledge this information before entering the aircraft.

This SIB is published to set recommendations for passenger aircraft operators, aerodrome operators and ground handling service providers on actions that should be taken to make passengers aware of the restrictions and conditions applicable to carriage of lithium batteries and PEDs powered by lithium batteries in passenger aircraft.

Concurrently with publication of this SIB, other EASA SIBs on lithium batteries (2009-22R1, 2015-06R1, 2015-19, 2015-28, 2016-04, 2017-04R1, and 2010-30R1) will be withdrawn.

¹ See Personal Electronic Device Hazard in Checked Luggage in <https://www.fire.tc.faa.gov/systems/lithium-batteries>

² A Class D cargo compartment is one in which a fire would be completely contained without endangering the safety of the aeroplane or the occupants, and without being accessible to crew members. Such compartments depend on oxygen deprivation to prevent and suppress combustion and on the capability of liners to resist flame penetration.

³ A Class C cargo compartment is one equipped with a smoke or fire detector system and with a fire extinguishing or suppression system controllable from the cockpit.

⁴ <https://www.easa.europa.eu/en/research-projects/fire-risks-caused-peds-board-aircraft>

This is information only. Recommendations are not mandatory.



At this time, the safety concern described in this SIB does not warrant the issuance of a Safety Directive (SD) under Commission Regulation (EU) [965/2012](#), Annex II, ARO.GEN.135.

Recommendation(s):

EASA recommends:

1. Aircraft operators to ensure that flight and cabin crews, as well as ground handling personnel, are aware of the restrictions on the types and the characteristics of lithium batteries that are permitted in passenger and crew checked and carry-on baggage.
2. Aircraft operators to ensure that the ground handling service providers communicate these restrictions to passengers at the time of check-in, including examples of what is and is not allowed. As stated in the ICAO 'Technical Instructions', this process shall also include an acknowledgement by the passenger of this information. This may be done by displaying, among others, visual examples of devices powered by lithium batteries.
3. Aircraft operators and ground handling service providers to ensure that all relevant personnel are aware that e-cigarettes and spare lithium batteries, including power banks, are not permitted in checked baggage. In addition, aircraft operators should ensure that ground handling service providers instruct passengers to remove lithium batteries from their carry-on baggage where such baggage cannot be accommodated in the cabin. In these cases where the baggage is taken from the passenger at the gate, aircraft operators should instruct the ground handling service provider to provide the passenger, also at this point, with information on the items that cannot be placed in checked baggage and solutions on where and how to carry the items that are not permitted in the checked baggage.
4. Both aircraft and aerodrome operators, assisted by ground handling service providers, to develop means to make passengers aware of risks associated with lithium batteries and equipment powered by them, and the restrictions applied to their carriage. This information should include, but not be limited to:
 - a) a strong recommendation to carry e-cigarettes and power banks where they can be monitored (on the person). If not possible, they must be in carry-on baggage following the restrictions of paragraph c);
 - b) prohibition of use power banks to charge electronic devices during the flight;
 - c) the restriction that, when spare batteries, including power banks, or e-cigarettes are in the carry-on baggage, they must be protected from short-circuit (e.g. carrying them in their original package, taping their terminals and putting them inside a plastic bag or box), unintentional activation, stowed as far as possible within the bag from any other battery and/or potentially flammable item (e.g. perfume), and cannot be charged during the flight;
 - d) where applicable, that power supply systems are available, but they shall be used only to charge PEDs and only when such PEDs are being monitored at all times by the passenger;
 - e) that equipment powered by installed lithium batteries (PED) should be protected against damage and unintentional activation when not in use during the flight; and
 - f) the limitation in watt hours (Wh) for electrically powered equipment that is carried on board by passengers, including examples of these devices to facilitate recognition. The

This is information only. Recommendations are not mandatory.



maximum rate for each electrically powered device is 100 Wh or, with the operator's approval, 160 Wh.

5. Aircraft operators to ensure that all crew members are aware of the risks of storing PEDs and lithium batteries in overhead bin compartments, particularly close to the oxygen systems, and that they are trained and aware of the characteristics of the lithium battery fires and fully understand and know the procedures established by the operator to extinguish such fires.
6. Aircraft operators to ensure that all equipment and procedures used to combat PED and lithium battery fires are proven to be effective for the largest lithium batteries and PEDs allowed for passengers and crew by the operator. Particularly, to ensure that suitable containers and sufficient non-alcoholic liquids are on board, in case they are needed during the cooling process.
7. Ground handling service providers to request passengers, in accordance with the aircraft operators' instructions, to ensure that any large PED that cannot be carried in the passenger cabin (e.g. due to its size), and therefore has to be carried in checked baggage, is:
 - a) Completely switched off and effectively protected from accidental activation. To ensure the device is never powered-on during its transport, any application, alarm or pre-set configuration that may activate it shall be disabled or deactivated;
 - b) Protected from the risk of accidental damage by applying suitable packaging or casing, or by being placed in a rigid bag protected by adequate cushioning (e.g. clothing);
 - c) Not carried adjacent to flammable or pressurized material (e.g. perfumes, aerosols, etc.).

Note: This refers to aircraft with smaller overhead bins that would not allow stowage of bigger items (tools, toys, drones, etc) where the batteries cannot be removed and, in any case, these shall not exceed the maximum Wh allowed.

8. Ground handling service providers to ensure that the personnel who may encounter lithium batteries in passenger baggage are trained and aware of the characteristics of lithium battery fires and apply the relevant aerodrome operator instructions in case of such fires.
9. Aircraft operators and ground handling service providers to make passengers aware of the risks caused by PED as a result of the battery being potentially short-circuited or damaged if caught in the movable part of seats. In such a case, or whenever any abnormal situation is suspected, passengers should immediately alert a cabin crew member or the staff of the aerodrome or the ground handling service provider, depending on where the situation occurs. Passengers should therefore be also informed on how to identify precursor signs of a potential event (e.g. overheat, body inflation).
10. Aerodrome operators to ensure that rescue and firefighting services personnel are fully aware of the characteristics of the lithium battery fires and that their training includes the specifics of how to properly respond to such emergency situations.
11. Aircraft operators, aerodrome operators and ground handling service providers to ensure the reporting of any occurrence related to lithium batteries to the appropriate authorities, in accordance with the applicable requirements.
12. NCAs, through their oversight, to advise these recommendations to be considered by the organisations' safety management system.

This is information only. Recommendations are not mandatory.



13. NCAs, through their oversight activities should ensure that the recommendations in this SIB are taken into account by the organisation's procedures and management systems.

Further information on the safe transportation by passengers of lithium batteries is available on the [EASA's Dangerous Goods](#) web page.

Contact(s):

For further information contact the EASA Safety Information Section, Certification Directorate.

E-mail: ADs@easa.europa.eu.

This is information only. Recommendations are not mandatory.



An agency of the European Union