



## Safety Information Bulletin

### Operations

SIB No.: 2016-08

Issued: 15 July 2016

**Subject:** Portable Electronic Devices belonging to the Operator

#### Ref. Publications:

- EASA Safety Information Bulletin (SIB) [No. 2009-22R1](#);
- Commission Regulation (EU) No [965/2012](#) of 5 October 2012 (hereafter referred to as the 'Air Operations regulation');
- International Civil Aviation Organisation (ICAO) [Document 9284](#), 'Technical Instructions for the Safe Transport of Dangerous Goods by Air' (hereafter referred to as the 'Technical Instructions');
- ICAO Doc. 9481, 'Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods'.
- UN (United Nations) [Manual of Tests and Criteria](#)

#### Applicability:

Operators of Passenger and Cargo Aircraft.

Member States performing oversight of the above mentioned operators.

#### Description:

The European Aviation Safety Agency (hereafter referred to as the 'Agency') is concerned about the risks associated with the broad use by aircraft operators of portable equipment devices (PEDs) containing lithium batteries that exceed the limits imposed by the Technical Instructions (TI). These PEDs are not part of the approved aircraft configuration, i.e. not part of the type design or a change to the type design. One example of these devices is the portable wireless network provider which is powered by several batteries contained inside.

Lithium batteries are classified as dangerous goods. This also applies when lithium batteries are contained in equipment. The Air Operations regulation requires compliance with the TI for the transport of lithium batteries and PEDs. These TI establish certain alleviations (paras 1;1.2.2.1 d) and 1;2.2.4 of the TI) for electronic devices, such as Electronic Flight Bags, entertainment devices or credit card readers, containing lithium metal or lithium ion cells and batteries. However, the limit established is that of Part 8;1.1.2 20) of the TI.

Additionally, the Air Operations regulation defines PEDs as *"any kind of electronic device, typically but not limited to consumer electronics, brought on board the aircraft by crew members, passengers, or as part of the cargo and that are not included in the approved aircraft configuration. All equipment that is able to consume electrical energy falls under this definition. The electrical energy can be provided from internal sources as batteries (rechargeable or*

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*non-rechargeable) or the devices may also be connected to specific aircraft power sources<sup>1</sup>*. The Air operations regulation contains the limits regarding the interference with the equipment of the aircraft and conditions to allow the use of the PEDs on board.

### Recommendation(s):

The Agency reminds operators and competent authorities of the provisions established in the TI and clarifies the following:

- Operators can benefit from the provisions of 1;2.2.1 d) and 1;2.2.4 of the TI, that is, they can carry lithium battery powered devices and their spare lithium batteries **for use on the aircraft during the flight or series of flights** without having to fulfil the provisions of the TIs only **as long as the Watt hours (Wh) of its battery do not exceed 100, or the lithium content does not exceed 2 grams**.
- In terms of calculating the Wh of the battery, when one PED has several batteries powering it together, the addition of Wh of all the batteries powering the device should be considered.
- The batteries and cells must be of a type which meets the requirements of each test in the UN Manual of Tests and Criteria, Part III, Subsection 38.3.
- Regardless of this exception, operators must still fulfil the following:
  - Spare lithium batteries to be individually protected, to prevent short circuits when not in use;
  - Conditions for the carriage and use of these electronic devices and for the carriage of spare batteries to be provided in the operations manual and/or other appropriate manuals as will enable flight crew, cabin crew and other employees to carry out their responsibilities, for normal operation and for potential failures (including thermal runaway) of the PEDs.
- Unless otherwise authorized by the State of the Operator, battery-powered devices with installed batteries and spare batteries intended as replacements for those referred above must be transported in accordance with the provisions of the TI.
- Those items which battery exceeds 100 Wh or 2 grams of lithium content must be transported in accordance with provisions of the TI and, therefore, they are subject to the appropriate regulations/approvals/authorizations for transport on board when they are intended to be used on the aircraft during the flight.
- All PEDs carried by the operator, whether benefiting or not from the exception in 1;2.2.1 d), must comply with the applicable provisions of the Air Operations regulation<sup>2</sup>. With regard to cabin crew qualification requirements, the referenced regulation and the provisions of Part CC as specified in Commission Regulation (EU) No 1178/2011 must also be complied with. It is recommended that the provisions of The ICAO Emergency Response Guidelines (ERG) are taken into consideration.

The Agency additionally reminds operators, who intend to carry PEDs containing battery or batteries that exceed the limits above mentioned, of the requirement to obtain from their

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<sup>1</sup> See GM1 CAT.GEN.MPA.140.

<sup>2</sup> Specifically, CAT.GEN.MPA.140, its Acceptable Means of Compliance (AMC) and Guidance Material (GM).

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competent authority the specific authorization in accordance with the TI. The Agency recommends that these units meet the requirements applicable to lithium batteries installed on aircraft.

The Agency further recommends authorities to include this item in their oversight programmes.

**Contact(s):**

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

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