

SAFETY NOTICE

SUBJECT:

Carriage of Power Bank / Spare Lithium Batteries as Carry-on Baggage on Board an Aircraft

GENERAL: Safety Notices (SNs) are issued by the Civil Aviation Authority – Macao, China to convey advisory information to Macao aviation entities to enhance safety. SNs contain safety-related recommendations, guidance and/or industrial best practices to specific subjects which may or may not have been addressed by established requirements and regulations.

RELATED REGULATIONS: Twentieth Schedule to the Air Navigation Regulation of Macao (ANRM)

AC/OPS/002 – Operations Manual Requirements

AC/AGA/013 – Restrictions on Dangerous Goods

APPLICABILITY: This SN applies to operators of Macao registered aircraft.

CANCELLATION: This SN is the first SN issued on this subject.

1. Introduction

- 1.1 Operators, whether or not approved to transport dangerous goods, shall incorporate dangerous goods procedures include but not limited to exceptions related to passengers, and training programmes in the operations manual as part of the flight safety documents system. Operators shall provide such information in the operations manual to crew members, ground staff, and where applicable its ground handling agents, as will enable them to carry out their responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods.

2. Background

- 2.1 A power bank is a portable power source used to charge electronic devices such as mobile phones, tablets and cameras. It typically contains lithium battery which stores electrical energy that charges electronic device.

- 2.2 The ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TIs) and Aeronautical Circular - AC/AGA/013 specify that power banks and spare lithium batteries are prohibited in checked baggage and must be carried in carry-on baggage only.
- 2.3 Passengers carrying power banks on board an aircraft is very common nowadays. Yet, lithium battery power banks may overheat and potentially catch fire which poses significant safety risks to the flight operation. Several incidents related to portable power bank left unattended in the overhead compartment in the cabin spontaneously ignited and caused a fire had occurred on passenger flight operations in the past.

3. *Safety Measures*

- 3.1 To mitigate the safety risk posed by lithium batteries, many air operators have taken various safety measures to deal with passengers carrying power banks or spare lithium batteries on board an aircraft, for examples:
- Do not use the power banks to charge other devices or charge the power banks during the flight;
 - Completely switch off the power banks during the flight;
 - Do not store the power banks / spare lithium batteries in overhead compartments;
 - Advise passengers to carry their power banks or spare lithium batteries in accessible locations, such as on persons, or keep inside the carry-on baggage and put under the seat in front, etc;
 - Insulate the electrode terminals of the spare lithium batteries (such as sealing the electrode terminals, or storing each battery in a plastic bag or protective bag or original retail packaging);
 - Raise passenger awareness on the safety precaution measures for the carriage of power banks (such as do not carry damaged or defective power banks).
- 3.2 Recently, there have been sporadic incidents relating to power banks catching fire and emitting smoke in aircraft cabins. AACM would like to remind Macao air operators to continuously pay attention to such safety risks, review and ensure the effectiveness of the current safety measures in place, including but not limited to the cabin crew response procedures, to prevent and handle lithium battery incidents.

4. *Recommended Actions*

- 4.1 Air operators are encouraged to note the information contained in this Safety Notice, review and ensure the effectiveness of the current safety measures in place, reinforce the safety measures or introduce new safety measures where appropriate for ensuring the safety of passengers and crew members.

- End -