



**WORKING PAPER**

**DANGEROUS GOODS PANEL (DGP)  
WORKING GROUP MEETING (DGP-WG/17)**

**Montreal, 24 to 28 April 2017**

**Agenda Item 5: Specific work items identified by the Air Navigation Commission:**

**5.3: Mitigating risks posed by the carriage of lithium batteries by air (ANC job card  
DGP.003.01)**

**PERSONAL ELECTRONIC DEVICES IN CHECKED BAGGAGE**

(Presented by the Secretary)

**SUMMARY**

This working paper proposes an amendment to the passenger provisions for carriage of personal electronic devices containing lithium batteries to address safety concerns related to recent security restrictions requiring passengers to carry personal electronic devices in checked baggage.

**Action by the DGP-WG:** The DGP-WG is invited to agree to the amendments proposed in the appendix to this working paper.

**1. INTRODUCTION**

1.1 Some States have recently banned the carriage of large personal electronic devices (PEDs) in the passenger cabin due to security concerns. This could result in a significant increase the number of PEDs powered by lithium batteries in cargo compartments. The risk of all PEDs being carried as checked baggage was not taken into account when developing the provisions for passengers and crew as it was assumed most passengers would choose to carry them in the cabin. An electronic bulletin was sent to all States advising of potential safety risks and recommending mitigate measures which could be applied (EB 2017/23).

**2. AMENDMENT PROPOSAL**

2.1 This working paper proposes an amendment to the safety risk assessment provisions in Part 7;1.7 and to the passenger provisions to incorporate the recommended mitigation measures outlined in EB 2017/23.

3. **ACTION BY THE DGP-WG**

3.1 The DGP-WG is invited to agree to the amendments proposed in the appendix to this working paper.

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## APPENDIX

### PROPOSED AMENDMENT TO THE TECHNICAL INSTRUCTIONS

#### Part 7

### OPERATOR'S RESPONSIBILITIES

#### Chapter 2

### STORAGE AND LOADING

#### 2.14 PERSONAL ELECTRONIC DEVICES IN CHECKED BAGGAGE

2.14.1 Some States have recently banned the carriage of large personal electronic devices (PEDs) in the passenger cabin due to security concerns. This will significantly increase the number of PEDs powered by lithium batteries in cargo compartments. States are encouraged to emphasize the need for operators to take this into account through their safety risk assessment procedures and to recommend that operators take the following actions:

#### 1.7 CONDUCTING SAFETY RISK ASSESSMENTS

1.7.1 Operators engaged in commercial air transport operations should include a safety risk assessment process for the transport of dangerous goods as part of their approved safety management system to comply with Annexes 6 — *Operation of Aircraft* and 19. This safety risk assessment should include appropriate information to result in implementation of safety measures that ensure the safe transport of dangerous goods including lithium batteries and cells as cargo.

1.7.2 Safety risk assessments should take the potential impact of security restrictions into account.

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**Part 8**

**PROVISIONS CONCERNING  
PASSENGERS AND CREW**

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**Chapter 1**

**PROVISIONS FOR DANGEROUS GOODS  
CARRIED BY PASSENGERS OR CREW**

**Table 8-1. Provisions for dangerous goods carried by passengers or crew**

<i>Items or articles</i>	<i>Location</i>			Approval of the operator(s) is required	The pilot-in-command must be informed	<i>Restrictions</i>
	Checked baggage	Carry-on baggage	On the person			
...						
Consumer articles						
...						
20)	Portable electronic devices (such as watches, calculating machines, cameras, cellular phones, laptop computers, camcorders)					
≠	Portable electronic devices containing lithium metal or lithium ion cells or batteries (articles containing lithium metal or lithium ion cells or batteries the primary purpose of which is to provide power to another device must be carried as spare batteries in accordance with the item below)	Yes	Yes	Yes	No	No
						a) carried by passengers or crew for personal use; b) should be carried as carry-on baggage; c) each battery must not exceed the following: <ul style="list-style-type: none"> <li>— for lithium metal batteries, a lithium content of 2 grams; or</li> <li>— for lithium ion batteries, a Watt-hour rating of 100 Wh;</li> </ul>

Items or articles	Location			Approval of the operator(s) is required	The pilot-in-command must be informed	Restrictions
	Checked baggage	Carry-on baggage	On the person			
						d) if devices are carried in checked baggage: <ul style="list-style-type: none"> <li>— measures must be taken to prevent unintentional activation <u>and to protect from damage</u>; and</li> <li>— <u>the device must be completely switched off (not in sleep or hibernation mode)</u>.</li> </ul> e) batteries and cells must be of a type which meets the requirements of each test in the UN <i>Manual of Tests and Criteria</i> , Part III, subsection 38.3.
...						
Portable electronic devices containing lithium ion batteries exceeding a Watt-hour rating of 100 Wh but not exceeding 160 Wh	Yes	Yes	Yes	Yes	No	a) carried by passengers or crew for personal use; b) should be carried as carry-on baggage; c) <u>if devices are carried in checked baggage:</u> <ul style="list-style-type: none"> <li>— <u>measures must be taken to prevent unintentional activation and to protect from damage</u>;</li> <li>— <u>the device must be completely switched off (not in sleep or hibernation mode)</u>; and</li> </ul> ed) batteries and cells must be of a type which meets the requirements of each test in the UN <i>Manual of Tests and Criteria</i> , Part III, subsection 38.3.
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