



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-SIXTH MEETING

Montréal, 16 to 27 October 2017

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)* for incorporation in the 2019-2020 Edition

LOADING OF CARGO AIRCRAFT

(Presented by P. Tatin)

SUMMARY

This working paper discusses the need for clarification with respect to terminology used in the provisions for loading dangerous goods bearing the cargo aircraft only label in Part 7;2.4.1.1 c).

Action by the DGP : The DGP is invited to provide their views and suggest whether clarification is needed on the meaning of terminology used in Part 7;2.4.1.1 c) (i.e. “emergency”, “access”, “handle” and “separate”).

1. INTRODUCTION

1.1 Part 7;2.4.1.1 defines the requirements for loading of packages or overpacks of dangerous goods bearing the “cargo aircraft only” label:

“2.4.1 Loading of cargo aircraft

2.4.1.1 Packages or overpacks of dangerous goods bearing the “Cargo aircraft only” label must be loaded for carriage by a cargo aircraft in accordance with one of the following provisions:

- a) in a Class C aircraft cargo compartment; or
- b) in a unit load device equipped with a fire detection/suppression system equivalent to that required by the certification requirements of a Class C aircraft cargo compartment as determined by the appropriate national authority (a ULD that is determined by the appropriate national authority to meet the Class C aircraft cargo compartment standards must include “Class C compartment” on the ULD tag); or
- c) in such a manner that in the event of an emergency involving such packages or overpacks, a crew member or other authorized person can access those packages or overpacks, and can handle and, where size and mass permit, separate such packages or overpacks from other cargo; or

- d) external carriage by a helicopter; or
- e) with the approval of the State of the Operator, for helicopter operations, in the cabin (see Part S-7;2.4 of the Supplement).

Note.— Cargo compartment classification is described in the ICAO document Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods (Doc 9481).

2.4.1.2 The requirements of 2.4.1.1 a), b) or c) do not apply to:

- a) flammable liquids (Class 3), Packing Group III, other than those with a subsidiary risk of Class 8;
- b) toxic substances (Division 6.1) with no subsidiary risk other than Class 3;
- c) infectious substances (Division 6.2);
- d) radioactive material (Class 7);
- e) miscellaneous dangerous goods (Class 9).

Note — When transporting goods in a non-pressurized cargo hold, there will be a large pressure differential up to 75 kPa at cruise altitudes. Packages that are filled at a normal atmospheric pressure may not be capable of withstanding this pressure differential. Confirmation of the suitability of the packagings from the shipper should be obtained.”

1.2 Particularly, paragraph 2.4.1.1 c) sets out requirements in cases where the provisions in sub-paragraph a), b), d) and e) are not applicable or fulfilled:

- “c) in such a manner that in the event of an emergency involving such packages or overpacks, a crew member or other authorized person can access those packages or overpacks, and can handle and, where size and mass permit, separate such packages or overpacks from other cargo; or”

1.3 Recent situations have suggested a lack of understanding of the requirements, in particular the terminology highlighted in bold type:

- “in the event of an **emergency** involving such packages or overpacks”
- “a crew member or other authorized person can **access** those packages or overpacks”
- “can **handle**” [them]

Hereafter are some examples of situation:

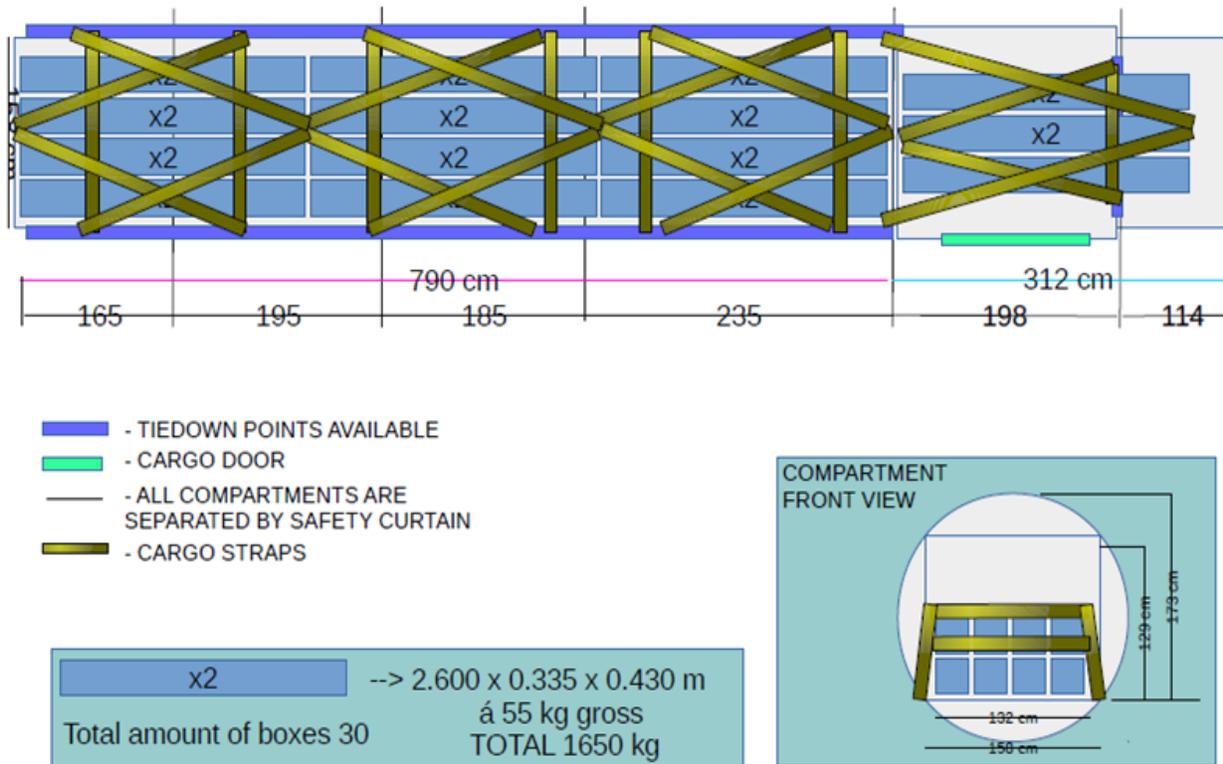
Example 1 (all packages are explosives permitted on cargo aircraft only, in compliance with the requirements of the Technical Instructions):



Example 2 (aircraft type: Saab Fairchild 340/SF34)

(all packages are “forbidden/forbidden” explosive material, under exemption):

30 packages, gross mass = 55 kg each



2. ACTION BY THE DGP

2.1 The DGP is invited to discuss the requirement and the wording, considering the following questions, and are invited to propose some clarification if needed:

- a) What does “emergency” mean?
 - 1) in flight and/or on ground?
 - 2) which kind of event: fire, leakage, damage, ...
 - 3) in case of leakage for instance, there is no automatic detection means in the hold for such a kind of event. Therefore, does it mean that only fire is addressed?
 - 4) is it applicable to explosive materials, considering it would be too late for corrective action in case involving a fire of a package containing explosives?

- 5) is it applicable to forbidden/forbidden explosives, subject to exemptions?
- b) What does “access to the packages or overpacks” mean?
 - 1) ability to push packages or overpacks around or over the concerned packages/packages? That is to say that space in the area is sufficient to move packages/overpacks around or over? That mass and size of packages/overpacks around or over permit them to be handled?
 - 2) does it make sense for overpacks?
- c) What does “handle” mean?
 - 1) ability to touch them? ability to move them?
 - 2) does it make sense for overpacks?
- d) How should Part 7;2.4.11 c) apply to explosives? Does it make sense? What about “forbidden/forbidden” explosives under exemption?

— END —