International Civil Aviation Organization

DGP-WG/24-WP/23
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WORKING PAPER

DANGEROUS GOODS PANEL (DGP) WORKING GROUP MEETING (DGP-WG/24)

Montreal, 21 to 25 October 2024

Agenda Item 2: Managing air-specific safety risks and identifying anomalies (REC-A-DGS-2027)
2.4: Development of proposals, if necessary, for amendments to the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) for incorporation in the 2027-2028 Edition

CARGO COMPARTMENT CLASSIFICATION

(Presented by B. Firkins)

SUMMARY

The *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) reproduces material relating to aircraft compartment classification published in certain airworthiness standards. Airworthiness standards have evolved and the associated text in Doc 9481 would benefit from revision and correction.

The DGP is invited to comment upon the proposed changes in this working paper, and to offer other matters that ought to be considered in maintaining the contemporary relevance of this document.

Action by the DGP-WG: Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 The *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) recites aircraft compartment classifications for Class A, Class B, Class C, Class D and Class E cargo compartments. The context for providing the classifications, when first added to Doc 9481 was probably with a view to encouraging operators to consider the limitations of the aircraft cargo compartments. The compartment classifications are only relevant for aircraft types certificated to FAR Part 25 and equivalent standards; yet the principles were able to be used by operators of aircraft that were not certificated to FAR Part 25 (such as those in FAR Part 23), to turn their mind towards emergency response consideration when developing policies and procedures regarding the carriage of dangerous goods.

1.2 When examining 14 CFR Part 25; and EASA CS-25, it is evident that the text in Doc 9481 for Cargo compartments meeting Classes B, C, D and F ought to be updated.

1.3 An alternative option would be to delete the various cargo compartment classifications from Doc 9481, and perhaps reference where they can be found, and to provide some guiding text-based principles for consideration by operators that would be generic and relevant for all aircraft types.

1.4 A straw-man proposal is provided at paragraph 2 of this working paper for consideration. Members of the DGP-WG are invited to provide considered views. If necessary, a revised proposal will be submitted for consideration at DGP-WG/25.

2. ACTION BY THE DGP-WG

2.1 The DGP-WG is invited to comment on the following proposed amendment:

1.1 CARGO COMPARTMENT CLASSIFICATION

Cargo compartments are classified in most national airworthiness requirements (such as FAR 25.857 and JAR 25.857) as follows:

Class A. A Class A cargo or baggage compartment is one in which:

a) the presence of a fire would be easily discovered by a crew member while at the crew member's station; and

b) each part of the compartment is easily accessible in flight.

Class B. A Class B cargo or baggage compartment is one in which:

a) there is sufficient access in flight to enable a crew member ~~to effectively reach any part of the compartment with the contents of~~, standing at any one access point and without stepping into the compartment, to extinguish a fire occurring in any part of the compartment using a hand fire extinguisher;

b) when the access provisions are being used, no hazardous quantity of smoke, flames or extinguishing agent will enter any compartment occupied by the crew or passengers; and

c) there is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station.

Class C. A Class C cargo or baggage compartment is one not meeting the requirements for either a Class A or B compartment but in which:

a) there is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station;

b) there is an approved built-in fire-extinguishing system controllable from the ~~pilot or flight engineer station~~ cockpit;

c) there are means ~~of~~ to exclud~~ing~~e hazardous quantities of smoke, flames, or extinguishing agent from any compartment occupied by the crew or passengers; and

d) there are means ~~of~~ to control~~ling~~ ventilation and draughts within the

compartment so that the extinguishing agent used can control any fire that may start within the compartment.

~~*Class D.* A Class D cargo or baggage compartment is one in which:~~

~~a) a fire occurring in it will be completely confined without endangering the safety of the aeroplane or the occupants;~~

~~b) there are means of excluding hazardous quantities of smoke, flames, or other noxious gases from any compartment occupied by the crew or passengers;~~

~~c) ventilation and draughts are controlled within each compartment so that any fire likely to occur in the compartment will not progress beyond safe limits; and~~

~~d) consideration is given to the effect of heat within the compartment on adjacent critical parts of the aeroplane.~~

~~For compartments of 14.2 m^3 or less, an airflow of 42.5 m^3 per hour is acceptable.~~Reserved

Class E. A Class E cargo compartment is one on aeroplanes used only for the carriage of cargo and in which:

a) there is a separate approved smoke or fire detector system to give warning at the pilot or flight engineer station;

b) there are means of shutting off the ventilating airflow to or within the compartment, and the controls for these means are accessible to the flight crew in the crew compartment;

c) there are means of excluding hazardous quantities of smoke, flames, or noxious gases, from the flight crew compartment; and

d) the required crew emergency exits are accessible under any cargo loading conditions.

Class F. A Class F cargo or baggage compartment must be located on the main deck and is one in which:

a) there is a separate approved smoke detector or fire detector system to give warning at the pilot or flight engineer station;

b) there are means to extinguish or control a fire without requiring a crewmember to enter the compartment; and

c) there are means to exclude hazardous quantities of smoke, flames, or extinguishing agent from any compartment occupied by the crew or passengers.

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