



危险物品专家组 (DGP)

第二十九次会议

2023 年 11 月 13 日至 17 日，蒙特利尔

议程项目 2: 管理航空特有的安全风险和查明异常情况 (编号: **REC-A-DGS-2025**)

2.2: 如有必要, 拟定对《危险物品安全航空运输技术细则》(Doc 9284 号文件) 的修订提案, 以便纳入 2025 年—2026 年版

使用电子数据向机长提供信息的规定

(D. Brennan 提交)

摘要

本工作文件提出修订向机长提供信息的方式, 以允许向机长传送电子数据, 以代替印刷形式的此类信息。

危险物品专家组的行动: 请危险物品专家组考虑对第 7 部分 4.1 中的修订, 如本工作文件附录所示。

1. INTRODUCTION

1.1 There has been discussion at the panel on permitting the provision of the information on dangerous goods carried as cargo to the pilot-in-command electronically, in lieu of a paper document, for over 6 years, dating first to the Dangerous Goods Panel Working Group Meeting in 2016 (DGP-WG/16) (see paragraph 3.2.7.1 of the DGP-WG/16 report).

1.2 This discussion has continued over multiple meetings of the panel as well as separate discussions with operators through the International Air Transport Association (IATA) Dangerous Goods Board and with flight crew through International Federation of Air Line Pilots' Associations (IFALPA) and jointly through an IATA/IFALPA informal working group.

1.3 There is broad agreement that allowing operators to provide the information to the pilot-in-command electronically would improve the accuracy and safety level and enhance the usability of information. For instance, by enabling the transmission of electronic data, operators could consider capturing data directly from the electronic dangerous goods transport document to produce the electronic notification to the pilot-in-command (e-NOTOC) upon completing the mandatory acceptance checks. With the application of electronic data, it also becomes feasible for pilots to search electronically and precisely for the necessary information without going through pages of printed NOTOC, particularly for freighter operations, where the size of the NOTOC may be extensive.

1.4 A revised proposal to permit the use of electronic data, in lieu of paper, for the information to the pilot-in-command was presented at the DGP Working Group Meeting in 2023 (DGP-WG/23) (see paragraph 4.9.1.1 of the DGP-WG/23 Report). This proposal made the use of electronic data in lieu of paper by the operator contingent on the agreement of the appropriate national authority of the State of the Operator.

1.5 While there was overwhelming support from the panel members for the proposal, the member nominated by IFALPA still had concerns that the proposed wording did not ensure that the information would be available to pilot-in-command during an emergency, even when electrical systems may be lost. He also suggested that as the “expert working group” had not completed its work it would be premature to agree to any proposal and that there should be input from airport rescue and firefighting (ARFF) services given the importance of the information to emergency responders.

1.6 In the subsequent discussions at DGP-WG/23 of the proposal, comments were also provided by several members that the procedures for the provision of information should be included into the operator’s Operations Manual or another appropriate manual; that the reference to electronic data processing (EDP) or electronic data interchange (EDI) techniques was too limiting and that the provisions should be more performance-based.

1.7 To address the issue of the availability of the information, the proposal has been revised to include a requirement that the information to the pilot-in-command must be available “at all times during flight”. This is quite unambiguous and would require that the operator satisfy their authority that this can be achieved regardless of any in flight emergency or abnormal operation.

1.8 As far as the “expert group”, to IATA’s knowledge there has been no meetings or discussions, and if there has, then operators and IATA have not been involved or consulted.

1.9 For the needs of the emergency responders, here it is believed that the actual risk posed by dangerous goods carried as cargo to emergency responders in the event of an aircraft incident or accident needs to be considered.

1.10 The primary object of emergency responders, at least in the initial phase of an incident or accident, is the preservation of human life, i.e. evacuation of the occupants of the aircraft. In probably 99.999% of incidents or accidents, the aircraft will pose the greatest risk to the emergency responders, i.e. the fuel, cylinders of compressed gas, pressurised hydraulic or pneumatic systems and so on. The potential for any dangerous goods carried as cargo to add to the risk to emergency responders is very, very low.

1.11 It is recognized that there will be a very small number of flights where the dangerous goods being carried do pose an additional risk to emergency responders, such as Division 1.1 or 1.2 explosives being carried under an exemption or radioactive materials under special arrangement. However, a system should not be designed to require all flights to address the 0.001% of events when additional requirements could be developed to address these limited circumstances.

1.12 If there is a view of the panel that provisions must be developed for flights when dangerous goods being carried could pose an unacceptable risk to emergency responders, then that should a separate consideration. For example, there could be a requirement that dangerous goods carried under an exemption must include the provision of information in advance of the flight on the type and quantity of the dangerous goods being carried. This could be required to be sent to the airport of destination, of transit and all airports nominated as alternates.

1.13 To the other concerns raised, it is the author's view that the operator's procedures for the provision of information to the pilot-in-command, by paper or as data, and the need for this to be in the Operations Manual or other appropriate manuals is already addressed in Part 7;4.2 and no additional specification is required.

1.14 As for EDP or EDI being too limiting, these are generic descriptions and there is no system or technology specified or implied. The reference to "EDP" and "EDI" has been in the Technical Instructions in Part 5;4 permitting the transmission of the data on the dangerous goods transport document in lieu of a paper document for over sixteen years without any suggestion of these terms being too limiting or that there is a particular technology or system that is required.

1.15 As for the provisions not being performance-based, the specific requirement that exists today is for the data elements that must be included on the information to the pilot-in-command. That is the "what". There is nothing in the Technical Instructions today, or in the proposal in this working paper, that specifies the "how". Therefore, it is believed that the proposal is completely performance-based. The operator is required to provide the pilot-in-command with specific information when dangerous goods are carried as cargo. How the operator achieves that is up to the operator to determine. The only clear specification is that the information must be available at all times during flight.

2. ACTION BY THE DGP

2.1 The DGP is invited to consider the amendments in Part 7;4.1 as shown in the appendix to this working paper.

附录

对《技术细则》第7部分的修订提案

第7部分

运营人的责任

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第4章

通报情况

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4.1 向机长通报的信息

4.1.1 运营人必须在拟装运危险物品的航空器起飞前，但在任何情况下不迟于航空器以自身动力移动时，尽早：

- a) 以准确且清楚的书写或打印形式将有关作为货物运输的危险物品的信息通报机长；~~和~~
- b) 向负责航空器运行控制的人员（例如飞行运行官员、飞行签派员，或经指定的负责飞行运行的地面人员）提供须向机长提供的同样信息（例如向机长提供的书面信息副本）。每一运营人都必须在其运行手册和/或其他有关手册中明确规定应向哪些人员（职务或职能）提供这一信息~~，~~和
- c) 如果与运营人所在国的国家主管当局有协议，则运营人可以通过 EDP 或 EDI 技术代替书面或打印信息向机长通报情况。

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4.1.4 向机长通报的信息还必须包括航空器装载负责人关于已装上航空器的包装件无破损或泄漏迹象、或集装箱无任何泄漏的签字确认或某种其他表示形式。

4.1.5 向机长通报的信息必须使机长在飞行全程中容易得到。

4.1.6 向机长通报的信息应以专门格式提供，不应通过航空货运单、危险物品运输文件、发票等形式提供。

4.1.7 机长必须在机长信息通知单上签字或以其他某种方式来表示已收到该信息。

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