



NOTA DE ESTUDIO

GRUPO EXPERTO EN MERCANCÍAS PELIGROSAS (DGP)

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Montreal, 13 - 17 de noviembre de 2023

- Cuestión 2:** Gestión de los riesgos de seguridad operacional específicos del transporte por vía aérea e identificación de anomalías (Ref.: REC-A-DGS-2025)
- 2.2:** Formular propuestas de enmienda de las *Instrucciones Técnicas para el transporte sin riesgos de mercancías peligrosas por vía aérea* (Doc 9284), si se considera necesario, para su incorporación en la edición de 2025-2026

**DISPOSICIONES SOBRE EL USO DE DATOS ELECTRÓNICOS PARA TRANSMITIR
INFORMACIÓN AL PILOTO AL MANDO**

(Nota presentada por D. Brennan)

RESUMEN

En esta nota se propone una modificación de la disposición sobre la información proporcionada al piloto al mando para permitir la transmisión de datos electrónicos al piloto al mando en lugar de información en formato impreso.

Medida propuesta al DGP: Se invita al DGP a considerar las enmiendas de la parte 7;4.1 como se indica en el apéndice de esta nota de estudio.

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.

* Solo se han traducido el resumen y el apéndice.

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.

APÉNDICE

PROPIUESTA DE ENMIENDA DE LAS INSTRUCCIONES TÉCNICAS — PARTE 7

Parte 7

OBLIGACIONES DEL EXPLOTADOR

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Capítulo 4

SUMINISTRO DE INFORMACIÓN

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4.1 INFORMACIÓN PROPORCIONADA AL PILOTO AL MANDO

4.1.1 Tan pronto como sea posible antes de la salida de la aeronave, pero en ningún caso después de que la misma se desplace por su propia potencia, el explotador de toda aeronave en la cual haya que transportar mercancías peligrosas, debe:

- a) proporcionar al piloto al mando, por escrito o en forma impresa, información exacta y legible relativa a las mercancías peligrosas que se transportarán como carga;y
- b) proporcionar al personal encargado del control operacional de la aeronave (es decir, el encargado de operaciones de vuelo, el despachador de vuelo, u otros miembros del personal de tierra responsables de las operaciones de vuelo) la misma información que se requiere proporcionar al piloto al mando (es decir, una copia de la información por escrito proporcionada al piloto al mando). Todos los explotadores deben especificar, en sus manuales de operaciones u otros manuales apropiados, el personal (cargo o función) al que debe proporcionarse esta información;y
- c) cuando existe un acuerdo con la autoridad nacional competente del Estado del explotador, el explotador puede proporcionar la información al piloto al mando mediante técnicas basadas en TED o IED en lugar de información impresa.

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4.1.4 La información proporcionada al piloto al mando debe incluir necesariamente la confirmación firmada, o alguna otra indicación, de la persona responsable de cargar la aeronave, de que no hubo prueba alguna de avería o pérdida en los bultos ni pérdida alguna en los dispositivos de carga unitarizada cargados a bordo.

4.1.5 Durante el vuelo, la información proporcionada al piloto al mando tiene que estar a disposición inmediata de este, en todo momento.

4.1.6 Debería presentarse esta información proporcionada al piloto al mando en un formulario especial y no sencillamente mediante la carta de porte aéreo, el documento de transporte de mercancías peligrosas o la factura, etc.

4.1.7 El piloto al mando deberá indicar en una copia de la información que le ha sido proporcionada, o de otro modo, que se ha recibido dicha información.

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— FIN —