



WORKING PAPER

**DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/22)**

Montréal, 21 to 25 November 2022

**Agenda Item 9: Coordination with other panels
9.4: Remotely Piloted Aircraft Systems Panel (RPASP)**

**DANGEROUS GOODS PROVISIONS TO SUPPORT REMOTELY PILOTED AIRCRAFT
SYSTEMS**

(Presented by the Secretary)

SUMMARY

This working paper proposes the establishment of a small working group to review Annex 18 and the Technical Instructions to determine amendments necessary to accommodate the safe transport of dangerous goods on remotely piloted aircraft.

Action by the DGP-WG is in paragraph 2.

1. INTRODUCTION

1.1 The Twenty-Eighth meeting of the Dangerous Goods Panel (DGP/28) recommended a review of Annex 18 — *The Safe Transport of Dangerous Goods by Air* and the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) to determine amendments necessary to accommodate the safe transport of dangerous goods on remotely piloted aircraft (see Recommendation 6/2 contained in the DGP/28 Report). The need for the review was identified during the panel's review of draft Standards and Recommended Practices (SARPs) for a new Part IV — *International IFR Operations — Remotely Piloted Aircraft Systems* to Annex 6 — *Operation of Aircraft*. The panel realized that the draft SARPs included provisions allowing for the transport of dangerous goods, but Annex 18, the Technical Instructions and the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* (Doc 9481) did not. While the dangerous goods documents include specific requirements and recommendations for the carriage of dangerous goods based on whether an aircraft is a passenger or cargo aircraft, and a remotely piloted aircraft may be considered a cargo aircraft, the requirements for cargo aircraft established in the Technical Instructions might not be appropriate. DGP/28 concluded that a thorough review of Annex 18 and the Technical Instructions was necessary to

determine how the documents can safely support the transport of dangerous goods on remotely piloted aircraft.

1.2 DGP/28 submitted a job card on the subject to the Air Navigation Commission (ANC) for its approval (see paragraph 6.4.1 and Appendix B to the DGP/28 Report on Agenda Item 6). The ANC approved the job card, with some minor modifications. The approved job card is provided in the appendix to this working paper.

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

2.1 The DGP-WG is invited to establish a small working group to review Annex 18 and the Technical Instructions to determine amendments necessary to accommodate the safe transport of dangerous goods on remotely piloted aircraft.

APPENDIX

**ANC JOB CARD FOR DANGEROUS GOODS PROVISIONS TO SUPPORT REMOTELY
PILOTED AIRCRAFT SYSTEM OPERATIONS**

DGP.007.01

Dangerous goods provisions to support RPAS operations

Source	DGP/28 Recommendation 6/2
Problem Statement	The Technical Instructions were developed before the introduction of RPAS and do not support draft Standards and Recommended Practices (SARPs) on the operation of remotely piloted aircraft currently proposed for Annex 6 — Operation of Aircraft as a new Part IV — International Operations — Remotely Piloted Aircraft Systems.
Specific Details	Draft SARPs endorsed by the eighteenth meeting of the Remotely Piloted Aircraft Systems Panel (RPASP/18) (25 to 29 October 2021) on the operation of remotely piloted aircraft developed for inclusion in Annex 6 — Operation of Aircraft as a new Part IV — International Operations — Remotely Piloted Aircraft Systems include provisions allowing for the transport of dangerous goods, but the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284) do not. The Technical Instructions include specific requirements and recommendations for the carriage of dangerous goods based on whether an aircraft is a passenger or cargo aircraft, as defined in that document. A remotely piloted aircraft could be a cargo aircraft based on this definition, but the requirements for cargo aircraft established in the Technical Instructions may not be appropriate. A thorough review of the Technical Instructions is necessary to determine how the document can safely accommodate the transport of dangerous goods on remotely piloted aircraft. This will result in consequential amendments to the Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284SU) and may result in consequential amendments to Annex 18.
Expected Benefits	Clarify States' responsibilities with respect to evaluating an operator's ability to manage the risks associated with dangerous goods on remotely piloted aircraft and provide operators with tools to manage the risks
Reference Documents	DGP-WG/20 Report, paragraph 3.6.4.1 DGP/28 Report, paragraph 6.4.1 Doc 9284SU, Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air Doc 9481, Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods
Deliverable Expert Group	Dangerous Goods Panel (DGP)

ID	Document Affected	Description of Amendment proposal or Action	Supporting Expert Group	Status	Expected Dates		
					Delivery Date	Effective	Applicability
10277	Actions	Identify need for amending dangerous goods provisions in the Technical Instructions and associated documents to accommodate dangerous goods operations on remotely piloted aircraft in alignment with Annex 6	RPASP FLTOSP- SCGSWG	On-schedule	Q4 2022	Dec 2022	Dec 2022
10278	Tech Ins for the ST of DG by Air (Doc 9284)	Recommendation for amendments to the Technical Instructions to accommodate RPAS operations	FLTOSP RPASP AIGP ADOP AIRP SMP AVSECP FALP	On-schedule	Q4 2023	Jan 2025	Jan 2025

ID	Document Affected	Description of Amendment proposal or Action	Supporting Expert Group	Status	Expected Dates		
					Delivery Date	Effective	Applicability
10279	Supplement to the Tech Instructions (Doc 9284SU)	Consequential amendments to the Supplement to the Technical Instructions to accommodate RPAS operations	FLTOPSP RPASP AIGP ADOP AIRP SMP AVSECP FALP	On-schedule	Q4 2023	Jan 2025	Jan 2025
10280	Annex 18	Consequential amendments to Annex 18 to accommodate RPAS operations	FLTOPSP RPASP AIGP ADOP AIRP SMP AVSECP FALP	On-schedule	Q4 2023	Jun 2025	Nov 2025
Status: Approved		Priority: Medium	Initial Issue Date: 02 Feb 2022	Date Approved by ANC: 02 Feb 2022	Session / Meeting: 219-4		

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