



# Doc 9481 AN/928

### Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods

2021-2022 Edition



Approved by and published under the authority of the Secretary General

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#### FOREWORD

Annex 18 to the Convention on International Civil Aviation — *The Safe Transport of Dangerous Goods by Air* — requires that "The operator shall provide such information in the Operations Manual as will enable the flight crew to carry out its responsibilities with regard to the transport of dangerous goods and shall provide instructions as to the action to be taken in the event of emergencies arising involving dangerous goods." This requirement is also included in the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284). Annex 6, Part I, Appendix 2 also requires that "information and instructions on the carriage of dangerous goods, including action to be taken in the event of an emergency" be included in the operations manual.

This document has been developed with the assistance of the Dangerous Goods Panel to provide guidance to States and operators for developing procedures and policies for dealing with dangerous goods incidents on board aircraft. It does not cover incidents which occur while the aircraft is on the ground, since emergency services should be available for such occurrences.

This document contains general information on the factors that may need to be considered when dealing with any dangerous goods incident. Guidance, in the form of checklists, is given for both flight crew and cabin crew, and is intended to be used in association with existing emergency procedures established in the aircraft flight manual. In addition, a list of dangerous goods is presented, both alphabetically and by UN (United Nations) number. The list identifies an appropriate emergency response drill for each item and a chart gives details of the drill and identifies other relevant safety matters. The list of dangerous goods presented in this document is based on the Dangerous Goods List (Table 3-1) contained in the 2021–2022 Edition of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) and reflects, therefore, all additions, deletions and changes to Table 3-1 introduced in that edition of the Technical Instructions may wish to develop their own material based on this document or they may include all or part of it, such as the list of dangerous goods and the associated drill chart, in their operations manual. The document may also be used in the required dangerous goods training programme for crew members.



22 June 2020

Dear Colleagues,

On behalf of more than 140,000 pilots in nearly 100 countries represented by the International Federation of Air Line Pilots' Associations (IFALPA), I would like to join ICAO in presenting this latest Edition of ICAO Doc 9481, the Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods. IFALPA is a non-political, non-profit making organization that supports and promotes the highest standards in flight safety. When properly prepared, packaged and handled, dangerous goods represent minimal risk in air transportation. Should an incident occur, however, this document will enable crew members to take the appropriate steps to address the emergency and ensure the safest possible outcome for the flight.

The document is intended to help operators develop checklists for their crew to deal with dangerous goods incidents. Guidance is given in the form of procedures to be used by both flight and cabin crew in the event of a spill, fire, or other incident involving dangerous goods. General information on cargo compartments, emergency equipment, and accessibility requirements for dangerous goods are provided for reference. This document serves as the key for the flight crew to unlock the information given on the Notification to Pilot-in-Command for dangerous goods shipments; it prescribes the correct steps to be taken for each type of dangerous goods shipment carried aboard aircraft. Using this document, the flight crew can put the information provided by the shipper about the dangerous goods to full use and take the correct actions for the emergency.

The Emergency Response Guidance is also intended to provide cabin crewmembers with appropriate procedures to respond to a spill or incident involving undeclared dangerous goods in the aircraft cabin. Amplified procedures are included to address an incident in the passenger cabin, ensuring that appropriate steps are taken regardless of the commodity. If the undeclared dangerous goods can be identified, an alphabetical list of dangerous goods provided in the guide can be referenced to obtain the correct drill code, and therefore the correct spill and fire-fighting procedures to be used. Furthermore, specific guidance is given on responding to in-flight fires involving portable electronic devices, which may contain lithium batteries.

IFALPA has once again joined forces with ICAO to prepare the new Edition of this Guidance, and we are pleased to bring it to you.

Yours Sincerely,

parte stille

Captain Jack Netskar President

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