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WORKING PAPER

DANGEROUS GOODS PANEL (DGP)
WORKING GROUP MEETING (DGP-WG/26)

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Agenda Item 5: Clarifying State oversight responsibilities in Annex 18 (Ref: Job Card DGP.005.07)

PROPOSED AMENDMENT TO ANNEXES 6 AND 18 TO CLARIFY STATES' RESPONSIBILITIES WITH RESPECT TO THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR AND ASSOCIATED AMENDMENTS TO THE TECHNICAL INSTRUCTIONS

(Presented by the Secretary)

SUMMARY

This working paper presents revised proposals to amend Annexes 6 and 18, together with associated amendments to the Technical Instructions, developed in response to concerns raised by the Air Navigation Commission during its preliminary review of the amendments recommended by DGP/30. The revisions are intended to improve the clarity, consistency and structure of the provisions and address specific provisions of the Technical Instructions that the Commission identified as unclear.

Action by the DGP-WG is in paragraph 6.

1. INTRODUCTION

1.1 The Air Navigation Commission (ANC) conducted its preliminary review of the proposed amendment to Annex 6 — *Operation of Aircraft* and Annex 18 — *The Safe Transport of Dangerous Goods by Air* recommended by the thirtieth meeting of the Dangerous Goods Panel (DGP) (DGP/30, 6 to 10 October 2025) at the ninth meeting of its 231st session (ANC 231-9). While recognizing the importance of the work and the substantial progress made to date, the ANC did not consider the amendment package to be sufficiently mature for transmission to States and appropriate international organizations for comments. Concerns included substantive issues related to consistency, conceptual clarity, structure and the relationship with other documents, especially the Technical Instructions. The Commission feared that consultation could lead to many State comments and possibly require another consultation cycle. It agreed that the proposal would be referred back to the DGP for further refinement, with a view to addressing the identified issues and improving overall clarity, consistency and alignment with the related documents. The Commission further agreed that flexibility would be provided to enable the panel to advance this work as early as possible, including through alternative working arrangements, where appropriate, without waiting for a formal panel meeting (ANC Min. 231-9).

1.2 The DGP Working Group on Annex 18 (DGP-WG/Annex 18) met during regularly scheduled virtual meetings and one face-to-face meeting in Washington, D.C. (24 to 28 August 2026) following the ANC's preliminary review to address the comments raised. This working paper presents revised amendments to Annex 6, in Appendix A, and Annex 18, in Appendix B developed by DGP-WG/Annex 18. It also presents, in Appendix C, amendments to provisions of the Technical Instructions that the ANC considered unclear. Paragraphs 2 through 4 below provide an overview of the ANC's specific concerns and explain how DGP-WG/Annex 18 proposes to address them. Action requested by DGP-WG/26 is set out in paragraph 6.

2. GENERAL COMMENTS FROM ANC

2.1 The Commission raised concerns with respect to an applicability date of 21 November 2030. It noted that the impact assessment provided with the proposal (see Appendices E and F to this working paper) indicated an implementation timeline of two to five years. It requested that the panel give the applicability date further consideration.

2.2 The close interrelationship between Annex 18 and the Technical Instructions was emphasized, making a review of the Annex in isolation difficult for the ANC to see a complete picture. It requested a package that allowed them to review both documents in a more integrated manner. It was also seeking greater clarity on how the Supplement to the Technical Instructions and the new manual under development would align and complement each other. The Secretariat noted that developing consequential amendments to a draft amendment to Annex 18 would be challenging before it was known whether the Annex amendment would be adopted, particularly given the substantial biennial amendments to the Technical Instructions needed to support safe intermodal transport. It therefore suggested providing a high-level indication of the types of consequential amendments that would be required. Accordingly, an initial list of consequential amendments that would be necessary is provided in Appendix C to this working paper. The ANC's comments on the lack of clarity in specific provisions of the Technical Instructions, as detailed in paragraph 4, are addressed by proposed amendments presented in Appendix D to the Technical Instructions. The Secretariat will provide the ANC with greater clarity on the relationship between the Supplement to the Technical Instructions and the *Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air (Doc xxxxx, forthcoming)* based on the outcome of discussions on DGP-WG/26-WP/30.

2.3 The Commission determined, during its review of amendments to proposed amendments to the Technical Instructions stemming from DGP/30, that it was premature to review provisions related to remotely piloted aircraft systems (RPAS) before other amendment packages, including provisions related to air traffic management (ATM), C2-link and detect and avoid (DAA), were fully developed. It therefore likewise concluded that RPAS-related Standards and Recommended Practices (SARPs) should only be reviewed after the remaining RPAS SARPs packages are completed and after a deeper review of the related provisions in the Technical Instructions is completed.

2.4 Specific concerns related to the proposed amendment to Annex 6 are outlined in paragraph 3 and to Annex 18 in paragraph 4 of this working paper.

3. PROPOSED REVISIONS TO AMENDMENT TO ANNEX 6 RECOMMENDED BY DGP/30 TO REFLECT ANC COMMNETS

3.1 Part I, Chapter 4; Part II, Section 2, Chapter 2 and Part III, Chapter 2

3.1.1 DGP/30, in coordination with the Flight Operations Panel (FLTOPSP), proposed to move the Standard in 9.5 of Annex 18 requiring the pilot-in-command to inform appropriate air traffic services unit, for the information of aerodrome authorities, of any dangerous goods on board the aircraft in the event of an in-flight emergency to Annex 6 under the provisions for "Duties of pilot in command" (see Appendix A, proposed amendment to Annex 6, Part I, 4.5; Part II, 2.2.5.4; and Part III, 2.5). During its preliminary review, the Commission requested that further consideration be given to maintaining "for the information of aerodrome authorities". The Secretariat advised against removing this clause because it clarifies the ultimate purpose of the SARP. It should therefore be removed only after careful consideration and confirmation that corresponding provisions in other Annexes or Procedures for Air Navigation Services ensure that the information is conveyed to aerodrome authorities. This would require coordination with the relevant expert groups. The text remains as recommended by DGP/30 right now, within square brackets, but it is currently being reviewed with flight operations, air traffic management and aerodrome experts. The outcome of this work will be coordinated with DGP and presented in a working paper to the thirteenth meeting of FLTOPSP (FLTOPSP/13, 30 November to 4 December 2026). Text recommended by FLTOPSP/13, after coordination with the relevant panels, will be included with the amendment package for the ANC's review.

3.2 Part I, Chapter 9 and Part III, Chapter 7

3.2.1 The ANC recommended editorial revisions to the amendment to the provision related to flight crew training programmes (see Appendix A, proposed amendment to Annex 6, Part I, 9.3 and Part III, 7.3). The proposal recommended by DGP/30 was made to separate dangerous goods training and unrelated elements into separate sub-paragraphs. While agreeing that the existing wording of the other training elements could be improved, the Secretariat recommended that this should only be done through consultation with relevant experts as there could be implications to other parts of the Annex and to other Annexes. The Secretariat has proposed a revision to simplify the provision that ensures consistency with language used in other parts of the Annex. The text will be further reviewed through inter-panel coordination with operations and personnel training and licensing experts, and a proposal will be presented to FLTOPSP/13.

3.3 Part I, Chapter 14 and Part III, Chapter 12

3.3.1 The ANC raised the following concerns regarding the proposed amendments to Annex 6, Part I, Chapter 14 and Part III, Chapter 12:

a) notes at the beginning of the chapters, particularly the references to specific provisions of the Technical Instructions, were unclear when read together with the corresponding Technical Instructions text, especially regarding company material classified as dangerous goods; and

b) the interaction between provisions on specific approval and exceptions needed review for greater clarity and consistency.

3.3.2 DGP-WG/Annex 18 noted that the notes at the beginning of the chapters have appeared in the Annex since the dangerous goods chapter was first adopted. Their purpose was to raise awareness of operators' responsibilities under Annex 18 and the Technical Instructions. DGP/30 proposed amendments to ensure that the references remained current, comprehensive and clear; however, the ANC's comments suggest that the notes create confusion rather than providing clarity. Recognizing that the notes are simply statements of fact, but that based on the ANC's comments may be distracting from the SARPs themselves, the working group proposes replacing them with a single note stating that the provisions of the chapter are amplified by Annex 18 and the Technical Instructions. As a consequence, it also proposes removing the definition of COMAT from Chapter 1 and the corresponding abbreviation from the Abbreviations and Symbols section, as the term would no longer be used. The working group considers that the proposed direct references in Annex 6 to the more comprehensive operator responsibilities in Annex 18 reduce the need for the explanatory notes. Any further need for clarity would be better served through comprehensive guidance material. The ANC, in reviewing the note related to COMAT, requested the panel to review the associated provisions in the Instructions, which it considered to be misaligned and unclear. Accordingly, an amendment to Part 1;2.2 of the Technical Instructions is proposed to address the ANC's concerns, for the consideration of the working group. It is presented in Appendix C to this working paper.

3.3.3 DGP-WG/Annex 18 reviewed the proposed Standard prohibiting operators from transporting dangerous goods unless they have specific approval to transport them and the exceptions to this requirement. Noting that the exceptions make the requirement apply only to dangerous goods transported as cargo and to carbon dioxide (dry ice) in mail, it recommends removing the exceptions and revising the Standard to apply only to the transport of dangerous goods as cargo (see Appendix A, proposed amendment to Annex 6, Part I, 14.1 and Part III, 12.1). The working group considered the implications of removing the exception for mail other than mail containing solid carbon dioxide (dry ice). Under the original amendment, an operator would have been prohibited from accepting mail containing dry ice unless it held a specific approval; under the revised amendment, all operators would be permitted to accept such mail. Recognizing that operators accepting dry ice have responsibilities for its acceptance and loading, the working group proposes adding corresponding requirements to Annex 18, Chapter 6 (Operator responsibilities) (see Appendix B, proposed amendment to Annex 18, 6.1.2.4 and 6.2.2.3.4). This would ensure that the responsibilities applicable to the transport of mail containing dry ice, when permitted by Annex 18, are clearly addressed for all operators, regardless of whether they hold a specific approval. The working group also considered whether dangerous goods in excepted or de minimis quantities should remain an exception from the specific approval, while noting that the Technical Instructions provide other exceptions and that it would be impractical to list them all. It concluded that they should not be listed as exceptions but rather addressed through guidance material. Finally, because the proposed SARPs now refer to cargo, the working group proposes adding the definition of cargo currently contained in the Technical Instructions to Annex 6, Parts I and III.

3.4 **Part I, Appendix 2 and Part III, Appendix 7**

3.4.1 The DGP-FLTOPSP inter-panel working group proposed that a note be added to Appendix 2 of Part I and Appendix 7 of Part III (Organization and contents of an operations manual) emphasizing that parts of the operations manual required to be used by operating crew in flight must be available on board the aircraft in accordance with Chapter 6, 6.2.3 a) for Part I and 4.2.3 a) for Part III (see the report on Agenda Item 3.4 of the twelfth meeting of FLTOPSP (FLTOPSP/12, 17 to 21 November 2025). The ANC removed the note because it did not consider it relevant given it was already formulated in a Standard and at the same time was concerned that it did not fully capture the requirements of it, which could lead to misinterpretation. It proposed to extend the SARP in 6.2.3 a) of Part I and 4.2.3 a) of Part III to also require those parts of the operations manual pertaining to emergency response to be carried on the

aeroplane, as shown in the amendment proposal in Appendix A. FLTOPSP/13 will be invited to consider this amendment.

3.4.2 In reviewing these provisions, DGP-WG/Annex 18 identified the need to replace "other operating personnel of the operator" in 2.1.36 b) of Appendix 2 and 2.1.28 b) of Appendix 7 with "other operations personnel" to ensure consistency with other parts of the Annex.

3.5 Other amendments

3.5.1 The Standards requiring operators to establish a dangerous goods training programme and to include dangerous goods procedures, instructions and guidance in the operations manual specify that these must meet the requirements of Annex 18 and the "State's regulations". DGP-WG/Annex 18 considers the reference to the "State's regulations" unnecessary, as such regulations apply to all SARPs and are not expressly referenced elsewhere. It therefore proposes deleting the reference (see Appendix A, proposed amendment to Annex 6, Part I, 14.2 a) and b), and Part III, 12.2 a) and b)).

3.5.2 DGP-WG/Annex 18 noted that the wording of the Standards applicable to operators with a specific approval in 14.3 of Part I and 12.3 of Part III could be interpreted as requiring the State of the Operator to issue such an approval. It therefore revised the Standards to remove any implication that the State of the Operator is required to issue a specific approval. The revised wording aligns with similar provisions elsewhere in Annex 6.

3.5.3 The Standards related to domestic commercial air transport operations in 14.5 of Part I and 12.5 of Part III include a note specifying that Annex 18 contains a similar provision. DGP-WG/Annex 18 proposes that this note is unnecessary and should therefore be deleted.

3.5.4 The ANC noted inconsistencies in the use of "restrictions" and "limitations" in Attachment G to Parts I and III and requested that the terminology be aligned. In reviewing Annex 6, the word "limitations" is predominantly used. Research suggests that a restriction generally prohibits an operation, whereas a limitation establishes the conditions under which an operation may be conducted. Attachment G has been amended accordingly. Consistent with this distinction, and pending the acceptance of the amendments to Annex 6, Attachment G, the panel may wish to consider replacing "restrictions" with "limitations" in the relevant column heading of Table 8-1 of the Technical Instructions.

4. PROPOSED REVISIONS TO AMENDMENT TO ANNEX 18 RECOMMENDED BY DGP/30 TO REFLECT ANC COMMNETS

4.1 General

4.1.1 The ANC requested input from the Secretariat's Legal Bureau on the appropriate terminology to use when assigning responsibilities to a "person" as opposed to an "organization". The Secretariat is awaiting feedback from the Bureau.

4.1.2 The ANC identified inconsistencies throughout the proposed amendment, which DGP-WG/Annex 18 has addressed in the proposed amendment in Appendix B to this working paper.

4.2 Foreword

4.2.1 The ANC requested clarification of the process for amending the Technical Instructions, including the DGP's review of comments from States and international organizations, and how States may access the Technical Instructions. DGP-WG/Annex 18 addressed this by revising the proposed new section in the Foreword on amendments to Annex 18 and the Technical Instructions to explain, in general terms, what might prompt the DGP to recommend amendments and what the respective roles of the Council and the ANC are in the process. Text was also added to explain how States can obtain the applicable edition of the Technical Instructions and any amendments issued during its period of applicability. It is, however, questioned whether this information belongs in the Annex or would be better placed in guidance material. DGP-WG/26 is invited to consider whether the proposed new section in the Foreword on amendments to Annex 18 and the Technical Instructions would be more appropriately placed in the *Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air (Doc xxxxx, forthcoming)*.

4.3 Chapter 1: Definitions

Appropriate national authority

4.3.1 The ANC raised concerns regarding the definition of "appropriate national authority", noting that wording derived from the Technical Instructions did not always align with the context of Annex 18. It also noted that the Annex refers to the appropriate national authority except for provisions on approval of training programmes for designated postal operators, which refer specifically to the civil aviation authority. It questioned how it could be ensured that the authority assigned a function has the necessary capability to perform it, particularly in States without mature State safety programmes. DGP-WG/Annex 18 considers it important to retain the definition, as the term is used throughout the Annex and has appeared in the Technical Instructions for several years. It reviewed references throughout the Annex for consistency and will review of the Technical Instructions as future work. The concerns of the ANC related to ensuring the authority has the necessary competencies are addressed under Chapter 2.

Dangerous goods accident and dangerous goods incident

4.3.2 The ANC, when reviewing the proposed amendments to definitions for dangerous goods accident and dangerous goods incidents, requested that clarification be provided on the relationship between dangerous goods accidents defined by Annex 18 and aircraft accidents defined by Annex 13 — *Aircraft Accident and Incident Investigation* to avoid ambiguity in responsibilities. DGP-WG/Annex 18, noting that these were existing definitions amended for clarity, concluded that new notes proposed for inclusion under the definitions, as recommended by DGP/30, may have contributed to the ANC's need for clarity. The amendments proposed by DGP/30 were in fact meant to clarify and not to introduce any new responsibilities; the requirement for States to investigate and compile information concerning dangerous goods accidents and dangerous goods incidents has been in effect since the first edition of Annex 18. DGP-WG/Annex 18 therefore proposes to remove these notes and to add a note under the existing Standards requiring safety investigations of dangerous goods accidents and dangerous goods incidents to distinguish those requirements from the Annex 13 requirement to investigate (see Appendix B, proposed amendment to Annex 18, 4.2.1).

4.4 Chapter 2: General

4.4.1 The ANC suggested adding "at a minimum" to 2.4.3.2 of the amendment proposed by DGP/30, which, together with 2.4.3.1, forbids the transport of articles or substances that are liable to explode, dangerously react, produce a flame or dangerous evolution of heat, or emit dangerous quantities

of toxic, corrosive or flammable gases or vapours under conditions normally encountered in transport, or that are specifically identified by name or generic description in the Technical Instructions. DGP-WG/Annex 18 considers "at a minimum" inappropriate because the two Standards establish definitive and exhaustive bases for prohibition and are not intended to encompass additional, unspecified categories. The working group proposes instead to restructure the provisions to address the ANC's request for clarification (see Appendix B, proposed amendment to Annex 18, 2.4.3).

4.4.2 The ANC expressed concerns related to the need to ensure that authorities assigned specific functions have the necessary competencies to perform them. DGP-WG/Annex shares the ANC's concerns, while recognizing that they apply not only to the safe transport of dangerous goods by air but also to other aviation sectors. Although DGP-WG/Annex 18 considers that Annex 19, Chapter 3, 3.2.3 and Appendix 1, paragraph 3 (critical element 3), addresses this concern, it developed new SARPs on the designation of appropriate national authorities, their functions and the interrelationship with Annex 19 (see Appendix B, proposed amendment to Annex 18, 2.3).

4.4.3 DGP-WG/Annex 18 identified a need to modify the Standard in Chapter 2 that gives the Technical Instructions their status (see Appendix B, proposed amendment to Annex 18, 2.2) during its consideration of the ANC's comments on the Standards requiring States to implement measures to manage safety risks associated with non-compliance (see paragraph 4.6.3 of this working paper). The Standard proposed by DGP/30 in Chapter 2 refers to persons who offer, handle or transport or cause to offer, handle or transport dangerous goods in cargo or mail. DGP-WG/Annex 18 proposes to replace "handles" with "accepts", because handling is a subset of the functions involved in offering and accepting dangerous goods for transport by air and the act of causing dangerous goods to be handled is not a function that needs to be addressed by the Standard. Referring to offering, accepting and transporting also aligns with the main functions identified in the general transport conditions contained in Part 1;2 of the Technical Instructions. It is important to include "handles" in Chapter 4 because handling is a specific function during which non-compliance may be detected, but it is inappropriate to include the term in Chapter 2 because handling is one of many functions encompassed by offering, accepting and transporting.

4.4.4 DGP-WG/Annex 18 reinstated "as established" from Annex 18, 4.1 in proposed 2.4.1.1 (limitations on the transport of dangerous good by air) in lieu of "in accordance with" because "in accordance with" could suggest that the Standard simply regulates an otherwise permitted activity. The phrase "in accordance with" is retained in 2.4.1.2 because, in relation to passenger baggage, it is used to limit what is permitted.

4.5 Chapter 3: Provision of Information to ICAO

4.5.1 The proposed new Standard in Chapter 2 on the designation of an appropriate national authority (see paragraph 4.4.2 of this working paper) makes it necessary to remove the corresponding designation requirement from Chapter 3. Chapter 3 would therefore focus solely on the requirement for each State to specify to ICAO the appropriate national authority within its administration responsible for ensuring compliance with Annex 18.

4.6 Chapter 4: State Safety Management Responsibilities (now State safety risk management)

4.6.1 The ANC raised the following concerns regarding Chapter 4:

a) possible inconsistencies between the chapter title, headings and the related content;

b) lack of clarity on the nature of the measures to be implemented;

c) apparent combination of compliance requirements and safety risk management concepts;

d) need for the Standards to be drafted clearly enough to support implementation without relying on guidance material;

e) lack of clarity around certain concepts;

f) potential ambiguity arising from the structure of certain provisions; and

g) need for consistent terminology throughout the provisions and the potential benefit of additional explanatory material.

4.6.2 DGP-WG/Annex 18 proposes to address the ANC's concerns by simplifying the section on safety risk management, focusing the Standards on measures to improve compliance with dangerous goods regulations and renaming the chapter. The working group proposes focusing on non-compliance because it is a known risk that affects aviation safety globally. The broader requirement for States to identify hazards and assess and manage safety risks associated with the safe transport of dangerous goods is already addressed in Annex 19 and would be further supported through guidance material. A note explaining this approach is proposed for inclusion at the beginning of the chapter, based on a similar note in Annex 13, Chapter 8. The proposed revised title, "State safety risk management", reflects the fact that the new Standards proposed for Chapter 2 on State authority and functions address State safety management responsibilities (the title proposed by DGP/30) for the safe transport of dangerous goods more holistically, whereas the Standards in Chapter 4, as revised, relate specifically to State safety risk management.

4.6.3 DGP-WG/Annex 18 discussed the scope of the SARPs requiring measures to ensure that any person who *handles* dangerous goods in cargo or mail has processes and procedures to identify dangerous goods that do not comply with the Technical Instructions and prevent them from being offered for transport by air or loaded on an aircraft (see Appendix B, proposed amendment to Annex 18, 4.4.1.2 a)). The working group maintains that the term "handles" is important in the context of managing the risks associated with non-compliance, because undeclared or misdeclared dangerous goods may be detected at any stage between offering, acceptance and transport. It did, however, consider "cause to handle dangerous goods" beyond the intended scope and amended the SARP accordingly.

4.7 Chapter 5: Safety of the Supply Chain (now Offering Dangerous Goods for Transport as Cargo by Air)

4.7.1 The new Chapter 5 on the safety of the supply chain proposed by DGP/30 included SARPs on primary aviation legislation and specific operating regulations based on two of the eight critical elements of a State's safety oversight system established in Annex 19. The ANC raised concerns with the extent to which the proposed SARPs repeated requirements already contained in Annex 19 and the inclusion of only two critical elements in the chapter. The Secretariat, during the ANC's preliminary review, proposed explanatory notes at the beginning of the chapter clarifying why only those two elements were referenced. The ANC supported the general intent but requested further clarification.

4.7.2 DGP-WG/Annex 18 proposes to address the ANC's concerns by removing the Standards on primary aviation legislation and specific operating regulations. The new Standards proposed by DGP-WG/Annex 18 for Chapter 2 on State authority and functions address State safety management

responsibilities for the safe transport of dangerous goods more holistically, including the establishment and maintenance of the foundation of the State safety oversight system through critical elements 1 to 8. The notes proposed by the Secretariat during the ANC's preliminary review would therefore no longer be necessary. The application of all critical elements in the context of the safe transport of dangerous goods would be elaborated in guidance material. The amendment proposed by DGP/30 also included a SARP requiring each State to establish specific operating regulations and specifying the responsibilities to be addressed by those regulations for the safe transport of dangerous goods. This necessitated addressing the responsibilities of all entities involved in the transport of dangerous goods by air in this chapter. While the responsibilities specified for entities offering dangerous goods for transport as cargo by air were unique in this section, those specified for operators and designated postal operators partly duplicated SARPs contained in the chapters dedicated to them. As the new Standards proposed for Chapter 2 address the establishment of specific operating regulations more holistically, a corresponding Standard in Chapter 5 is no longer necessary. DGP-WG/Annex 18 therefore proposes retaining in Chapter 5 only the SARPs addressing the responsibilities of entities offering dangerous goods for transport as cargo by air. It also proposes a note at the beginning of the chapter clarifying that offering dangerous goods for transport as cargo by air encompasses functions related to their safe transport that are performed before acceptance by the operator.

4.7.3 The ANC raised additional concerns regarding the consistency and clarity of the term "entities" and requested clarification of which documentation was required to be retained. The revised amendment removes the term "entities" and specifies that the dangerous goods transport information required by the Technical Instructions must be retained.

4.8 Chapter 6: Operator's Responsibilities

4.8.1 The ANC expressed concern that certain proposed SARPs, particularly those addressing operator responsibilities, duplicated provisions contained in the Technical Instructions. DGP-WG/Annex 18 considers that a degree of deliberate overlap is necessary to preserve the regulatory framework established by the Council when Annex 18 was adopted and to avoid gaps between State oversight obligations and the detailed requirements applicable to industry. Annex 18 establishes the overarching regulatory framework and identifies the responsibilities of the persons and organizations that States are required to oversee, whereas the Technical Instructions are directed primarily at those persons and organizations and contain the detailed specifications necessary to fulfil those responsibilities.

4.8.2 Over successive editions of Annex 18, some duplication was removed by expressing responsibilities in more general terms in Annex 18 and retaining the corresponding details in the Technical Instructions. Although this reduced repetition and the frequency with which Annex 18 needed to be amended, it also made the responsibilities that States were required to oversee less visible in the Annex. It also created the possibility that substantive responsibilities could be modified through amendments to the Technical Instructions without the level of State consultation associated with amendments to an Annex. This lack of visibility and clarity regarding State responsibilities was among the concerns identified by the ANC before the work to clarify State responsibilities in Annex 18 was initiated.

4.8.3 DGP-WG/Annex 18 considers that the level of overlap reflected in the proposed SARPs should be retained. The intent is not to reproduce the detailed specifications of the Technical Instructions, but to ensure that Annex 18 clearly establishes the responsibilities that form the basis for State regulation and oversight, while the Technical Instructions ensure that those responsibilities are clearly communicated to the persons and organizations concerned and explain how they are to be fulfilled. The working group maintains that this level of overlap is necessary to preserve the distinct but complementary functions of the two documents and to avoid regulatory gaps.

Provisions allowing variations from the Technical Instructions for helicopters and remotely piloted aircraft systems

4.8.4 The ANC questioned whether the provisions allowing variations from the Technical Instructions for helicopters and remotely piloted aircraft systems were appropriately included in both Annex 18 and the Technical Instructions (see Appendix B, proposed amendment to Annex 18, 6.2.6). DGP-WG/Annex 18 proposes to revise the Standards in the Annex to make the operator the subject, consistent with the other SARPs in Chapter 6 and with Annex 6. The working group maintains that the corresponding provisions should also be retained in the Technical Instructions for the reasons set out in paragraphs 4.8.1 to 4.8.3 of this working paper.

4.9 Chapter 8: Transport of Dangerous Goods by Post

4.9.1 The ANC requested that Chapter 8 be reviewed together with the Technical Instructions to ensure consistency and avoid contradictions. DGP-WG/Annex 18 developed revisions to Annex 18 and the Technical Instructions to ensure the corresponding provisions aligned (see Appendix B, proposed amendment to Annex 18, Chapter 8 and Appendix C, proposed amendment to provisions for transport of dangerous goods by post in Part 1;2.3 of the Technical Instructions). The ANC noted inconsistent use of "post" and "mail". DGP-WG/Annex 18 planned on ensuring consistent use of t, but it identified that the terms are also used interchangeably in the Universal Postal Union (UPU) Convention. The working group determined that although closely related, they are not always interchangeable. Research suggests that "mail" refers to the items being sent, whereas "post" refers more broadly to the postal system or service through which those items are conveyed. DGP-WG/26 is invited to review the proposed amendment to Annex 18, Chapter 8, contained in Appendix B, together with the corresponding amendment to Part 1;2.3 of the Technical Instructions contained in Appendix C, to ensure consistency between the provisions.

4.10 Chapter 9: Training and Assessment (now Dangerous Goods Training Programmes)

4.10.1 The ANC questioned whether the differing requirements for the approval of dangerous goods training programmes could create gaps or unclear divisions of responsibility between national authorities. In particular, it sought assurance that the authority responsible for approval would have the necessary competence and capability, including in States without a mature State safety programme. It also questioned the rationale for assigning approval of designated postal operator training programmes specifically to the civil aviation authority, while assigning approval of training programmes for entities other than the operator to the appropriate national authority. The Secretariat explained the distinction, but the ANC requested that the panel give it further consideration.

4.10.2 DGP-WG/Annex 18 acknowledges the concerns related to ensuring that the national authority has the necessary competence and capability to approve dangerous goods training programmes. They are similar to the general concerns about competency of national authorities outlined in paragraph 4.4.2 of this working paper. DGP-WG/Annex 18 proposes that the new SARPs on the designation of appropriate national authorities, their functions and the interrelationship with Annex 19 described in that paragraph addresses both the concerns outlined in paragraph 4.4.2 and these ones.

4.10.3 DGP-WG/Annex 18 maintains that a specific authority should be specified for designated postal operators, because they operate outside the aviation system. The provisions for approving procedures and training programmes for these entities are also reflected in the UPU Convention, and postal authorities may not recognize that they are not the appropriate authority for this purpose. These provisions were introduced into Annex 18 through Amendment 12; therefore, referring to the civil aviation authority as the

approving body is not new. To add clarity and specificity, DGP-WG/Annex 18 proposes to replace references to the civil aviation authority with "the national authority responsible for the safety oversight of air operators". This terminology is consistent with that used in Annex 6, Part I, Appendix 5 and Part III, Appendix 1.

4.10.4 DGP-WG/Annex 18 also maintains that the more general "appropriate national authority" is necessary for approving the training programmes of entities other than operators and designated postal operators. Responsibilities related to the transport of dangerous goods as cargo by air for which training is required are wide-ranging, and oversight may fall within the competence of different authorities, depending on the function concerned and each State's administrative arrangements. The term "appropriate national authority" provides the flexibility for each State to assign the role to the authority best placed to perform a specific function. The proposed SARPs in Chapter 2 would require the necessary coordination among the relevant authorities, and the working group intends to elaborate on this coordination in guidance material.

4.10.5 The entities required to establish dangerous goods training programmes are more clearly identified through the proposed revisions to Chapter 5, which is now dedicated to the responsibilities of entities offering dangerous goods for transport as cargo by air, Chapter 8, which is dedicated to designated postal operators, and the existing requirement in Annex 6 for operators to establish such programmes. DGP-WG/Annex 18 therefore proposes to remove from Chapter 9 the SARPs related to the establishment of dangerous goods training programmes so that the chapter focuses on the requirements applicable to those programmes. A note identifying where the SARPs requiring the establishment of dangerous goods training programmes are located is proposed for inclusion at the beginning of the chapter. DGP-WG/Annex 18 also proposes to reorder the sections of Chapter 9 to align more closely with the corresponding provisions of the Technical Instructions.

4.11 Chapter 10: Dangerous Goods Safety Intelligence

4.11.1 The ANC raised concerns regarding Chapter 10, and further comments were later provided through correspondence, as described below.

4.11.1.1 The ANC considered that the reference to the State in which dangerous goods not permitted to be carried by passengers or crew members were discovered should be aligned with Annex 18 terminology by using "State of Occurrence". It further requested that the panel consider extending the reporting requirement to the State of the Operator, as failure to do so could prevent that State from identifying recurring safety issues involving its operators. DGP-WG/Annex 18 considered whether reports should be submitted to additional States. A separate proposal on this subject is presented in DGP-WG/26-WP/11, and DGP-WG/26 is invited to consider this matter in the context of that working paper. The additional States are included in square brackets in the proposed amendment in Appendix B to this working paper, pending the working group's conclusions following its consideration of DGP-WG/26-WP/11.

4.11.1.2 The ANC identified a reporting gap for reporting by designated postal operators operating in another State. DGP-WG/Annex 18 acknowledged this gap and proposes to close it by requiring the designated postal operator to report to its national authority responsible for the safety oversight of air operators and, if different, to the national authority responsible for the safety oversight of air operators of the State where the mail was accepted.

4.11.1.3 The ANC considered the requirements for designated postal operators to report dangerous goods in mail that do not comply with the Technical Instructions to be less specific than the requirements for operators to report undeclared or misdeclared dangerous goods discovered in cargo or mail, potentially creating uncertainty as to which instances of non-compliance involving mail must be reported.

DGP-WG/Annex 18 acknowledges this difference in specificity. However, referring to undeclared or misdeclared dangerous goods in mail is inappropriate because dangerous goods sent through the postal system are not declared for transport. DGP-WG/Annex 18 therefore proposes amending the reporting requirement to refer to "dangerous goods discovered in mail that are not permitted to be sent by post for air transport", which is more specific than "non-compliance". This discussion brought to the working group's attention an error in the mandatory reporting requirements for operators and the dangerous goods safety investigation provisions in Chapter 4, both of which refer to undeclared or misdeclared dangerous goods in mail. DGP-WG/Annex 18 therefore proposes separating the provisions for reporting and investigating occurrences involving mail from those involving cargo in Chapter 4, 4.2.2 and Chapter 10, 10.1 so that the correct terminology can be used for both.

4.11.1.4 The ANC noted that Chapters 4 and 10 were not fully aligned: the reporting requirement in Chapter 10 covered prohibited dangerous goods discovered in passenger or crew baggage or on a person, whereas the corresponding State obligation to investigate and analyse such occurrences in Chapter 4 referred only to discoveries in baggage. Revisions are proposed to address this inconsistency.

4.11.1.5 The ANC suggested that the criteria for determining whether misdeclared dangerous goods discovered during an acceptance check has the potential to endanger safety is unclear, potentially creating a loophole in the mandatory reporting requirements. DGP-WG/Annex 18 maintains that this qualifier is necessary and that the operator should be able to differentiate between misdeclarations that could endanger safety versus those likely not too. Misdeclared dangerous goods discovered during an acceptance check allows the operator to reject them before they enter the air transport system. Requiring every such discovery to be reported could generate a large volume of reports concerning errors that were detected and addressed through the acceptance process, without presenting a safety concern. DGP-WP/Annex 18 therefore maintains that reporting should only be required when the misdeclaration has the potential to endanger safety. By contrast, misdeclared dangerous goods discovered after completion of the acceptance check indicate that the misdeclaration was not detected by the controls intended to prevent it and that the consignment may have entered the air transport system on the basis of incorrect information. All such occurrences therefore warrant reporting.

4.12 **Chapter 11: Dangerous Goods Security**

4.13 The ANC noted that the final sentence of the chapter used "should" and concluded that, if the sentence was intended to constitute a Recommendation, it should be formatted as such. Although the Secretariat supported converting the provision into a Recommendation, security experts participating in the face-to-face meeting in Washington, D.C. cautioned that doing so could have unintended consequences by implying a directive rather than providing supplementary information. While acknowledging the security experts' concerns, this led DGP-WG/Annex 18 to discuss the intent of the provision and whether it needed clarification. The working group concluded that the wording should not be amended without further input from security experts. Given that DGP/30 had not proposed amendments to the provision and no difficulties with its implementation had been reported, it concluded that the wording should stay the same. However, it agreed that the text should not remain as part of the Standard. Accordingly, the working group considered two alternatives: converting the text into a note or deleting it and addressing its intent in supporting guidance material. The Secretariat recommends the former, as deletion could have an unintended impact on security. The text is therefore shown as a note in square brackets in Appendix B for consideration by DGP-WG/26.

5. IMPACT ASSESSEMENT

5.1 The impact assessment recommended by DGP/30 is presented in Appendix D to this working paper. DGP-WG/26 is invited to consider whether revisions are necessary in light of the ANC's comments outlined in paragraph 2.1 of this working paper.

6. ACTION BY THE DGP-WG

6.1 The DGP-WG is invited to:

a) consider the feasibility of maintaining an applicability date of 21 November 2030 and/or if the impact assessment provided in Appendix E to this working paper needs adjustment in light of the ANC's comments outlined in paragraph 2.1 of this working paper.

b) agree to the proposed amendments to Annex 6 presented in Appendix A to this working paper, with the understanding that further revisions may be made by FLTOPSP/13 to address ANC comments through coordination with DGP;

c) agree to the proposed amendments to Annex 18 presented in Appendix B to this working paper, subject to the following:

1) consider whether guidance on amendments to Annex 18 and the Technical Instructions proposed for inclusion in the Foreword to Annex 18 would be more appropriately placed in the *Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air (Doc xxxxx, forthcoming)* (see paragraph 4.2.1 of this working paper);

2) consider whether proposed amendments to the provisions for the transport of dangerous goods by post contained in Chapter 8 align with the proposed amendment to the associated provisions in the Technical Instructions contained in Appendix C of this working paper (see paragraph 4.9 of this working paper);

3) consider, based on the discussion of the proposal presented in DGP-WG/26-WP/11, whether reporting the discovery of dangerous goods not permitted to be carried by passengers or crew members should be extended to additional States (see paragraph 4.11 of this working paper); and

4) consider whether the last sentence in Chapter 12 should be turned into a note or deleted (see paragraph 4.12 of this working paper);

d) review the list of consequential amendments to the Technical Instructions that would be necessary to incorporate in the 2031-2032 Edition of the Technical Instructions should the amendment to Annex 18 be adopted with an applicability date of 26 November 2030, and agree to further work on this matter by DGP-WG/Annex 18;

e) review the proposed amendment to Part 1.2.2 of the Technical Instructions (exceptions for dangerous goods of the operator) contained in Appendix D to this working paper and consider whether it should be incorporated in the 2029-2030 Edition of the

Technical Instructions or in the 2031-2032 Edition with all consequential amendments identified in sub-paragraph d) above (see paragraph 3.3.2 of this working paper); and

f) discuss whether the "Restrictions" column in Table 8-1 should be renamed as "Limitations" to reflect consistent use of the terms (see paragraph 3.5.4 of this working paper).

— — — — — — — —

APPENDIX A

PROPOSED AMENDMENT TO

ANNEX 6

OPERATION OF AIRCRAFT

PART I — *INTERNATIONAL COMMERCIAL AIR TRANSPORT — AEROPLANES*

ABBREVIATIONS AND SYMBOLS
(used in this Annex)

. . .

~~COMAT Operator material~~

. . .

CHAPTER 1. DEFINITIONS

. . .

Cargo. Any property carried on an aircraft other than mail and accompanied or mishandled baggage.

Note.— This definition differs from the definition of "cargo" given in Annex 9 — Facilitation *that excludes stores (supplies) from cargo.*

~~***COMAT.*** Operator material carried on an operator's aircraft for the operator's own purposes.~~

. . .

Dangerous goods. Articles or substances which are capable of posing a ~~risk~~ hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

~~*Note. — Dangerous goods are classified in Annex 18, Chapter 3.*~~

. . .

Technical Instructions. The *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council.

. . .

CHAPTER 4. FLIGHT OPERATIONS

. . .

4.5 DUTIES OF PILOT-IN-COMMAND

. . .

4.5.6 If an in-flight emergency occurs, the pilot-in-command shall, as soon as the situation permits, inform the appropriate air traffic services unit[, for the information of aerodrome authorities,] of any dangerous goods on board the aircraft, as provided for in Part 7, Chapter 4, 4.3 of the Technical Instructions.

. . .

CHAPTER 6. AEROPLANE INSTRUMENTS, EQUIPMENT AND FLIGHT DOCUMENTS

. . .

6.2 ALL AEROPLANES ON ALL FLIGHTS

. . .

6.2.3 An aeroplane shall carry:

a) the operations manual prescribed in Chapter 4, 4.2.3, or those parts of it that pertain to flight operations and emergency response;

b) the flight manual for the aeroplane, or other documents containing performance data required for the application of Chapter 5 and any other information necessary for the operation of the aeroplane within the terms of its certificate of airworthiness, unless these data are available in the operations manual; and

c) current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

. . .

CHAPTER 9. AEROPLANE FLIGHT CREW

. . .

9.3 FLIGHT CREW MEMBER TRAINING PROGRAMMES

9.3.1 The operator shall establish and maintain a ground and flight training programme, approved by the State of the Operator, which ensures that all flight crew members are adequately trained to perform their assigned duties. The training programme shall:

a) include ground and flight training facilities and properly qualified instructors as determined by the State of the Operator;

b) consist of ground and flight training in the type(s) of aeroplane on which the flight crew member serves;

c) include proper flight crew coordination and training in all types of emergency and abnormal situations or procedures caused by engine, airframe or systems malfunctions, fire or other abnormalities;

d) include upset prevention and recovery training;

e) include training that enables flight crew members to develop and maintain knowledge and skills related to:

1) visual and instrument flight procedures for the intended area of operation;

2) charting;

3) human performance including threat and error management; and

4) processes and procedures associated with the transport of dangerous goods;

f) ensure that all flight crew members know the functions for which they are responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures; and

g) be given on a recurrent basis, as determined by the State of the Operator and shall include an assessment of competence.

. . .

CHAPTER 14. DANGEROUS GOODS

Note 1.— The provisions of this chapter are amplified by provisions of Annex 18 and the Technical Instructions.

14.1 ~~STATE RESPONSIBILITIES~~GENERAL

The operator shall not transport dangerous goods as cargo unless it has been issued a specific approval for the transport of dangerous goods by the State of the Operator.

~~*Note 1.— Annex 18, Chapter 11, contains requirements for each Contracting State to establish oversight procedures for all entities (including packers, shippers, ground handling agents and operators) performing dangerous goods functions.*~~

~~*Note 2.— Operator responsibilities for the transport of dangerous goods are contained in Chapters 8, 9 and 10 of Annex 18. Part 7 of the* Technical Instructions for the Safe Transport of Dangerous Goods by Air *(Doc 9284) (Technical Instructions) contains the operator's responsibilities and requirements for incident and accident reporting.*~~

~~*Note 3.— The requirements pertaining to crew members or passengers carrying dangerous goods on aircraft are set forth in Part 8, Chapter 1, of the Technical Instructions.*~~

~~*Note 4.— COMAT that meets the classification criteria of the Technical Instructions for dangerous goods are considered cargo and must be transported in accordance with Part 1;2.2.2 or Part 1;2.2.3 of the Technical Instructions (e.g. aircraft parts such as chemical oxygen generators, fuel control units, fire extinguishers, oils, lubricants, cleaning products).*~~

14.2 OPERATORS WITH NO SPECIFIC APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS ~~AS CARGO~~

The State of the Operator shall ensure that operators with no specific approval ~~to~~ for the transport of dangerous goods have:

a) established a dangerous goods training programme that meets the requirements of Annex 18, Chapter 9 ~~the applicable requirements of the Technical Instructions, Part 1, Chapter 4, and the requirements of the State's regulations, as appropriate~~. Details of the dangerous goods training programme shall be included in the ~~operator's~~ operations ~~manuals:~~manual; and

b) established dangerous goods ~~policies and~~ procedures, instructions and guidance in ~~its~~ the operations manual to enable personnel to ~~meet~~ execute, at a minimum, the requirements of Annex 18, ~~the Technical Instructions and the State's regulations to allow operator personnel to:~~ Chapter 6, 6.1.

~~1) identify and reject undeclared dangerous goods, including COMAT classified as dangerous goods; and~~

~~2) report to the appropriate authorities of the State of the Operator and the State in which it occurred any:~~

~~i) occasions when undeclared dangerous goods are discovered in cargo or mail; and~~

~~ii) dangerous goods accidents and incidents.~~

14.3 OPERATORS WITH A SPECIFIC APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS ~~AS CARGO~~

~~The State of the Operator shall issue~~When issuing a specific approval for the transport of dangerous goods ~~and~~, the State of the Operator shall ensure that the operator has:

a) establishe~~s~~d a dangerous goods training programme that meets the requirements ~~in the Technical Instructions, Part 1~~ of Annex 18, Chapter ~~4,~~ 9~~, and the requirements of the State regulations, as appropriate~~. Details of the dangerous goods training programme shall be included in the ~~operator's~~ operations ~~manuals;~~ manual; and

b) establishe~~s~~d dangerous goods ~~policies and~~ procedures, instructions and guidance in ~~its~~ the operations manual to enable personnel to ~~meet~~ execute, at a minimum, the requirements of Annex 18, ~~the Technical Instructions and the State's regulations to enable operator personnel to:~~ Chapter 6, 6.2.

~~1) identify and reject undeclared or misdeclared dangerous goods, including COMAT classified as dangerous goods;~~

~~2) report to the appropriate authorities of the State of the Operator and the State in which it occurred any:~~

~~i) occasions when undeclared or misdeclared dangerous goods are discovered in cargo or mail; and~~

~~ii) dangerous goods accidents and incidents;~~

~~3) report to the appropriate authorities of the State of the Operator and the State of Origin any occasions when dangerous goods are discovered to have been carried;~~

~~i) when not loaded, segregated, separated or secured in accordance with the Technical Instructions, Part 7, Chapter 2; and~~

~~ii) without information having been provided to the pilot-in-command;~~

~~4) accept, handle, store, transport, load and unload dangerous goods, including COMAT classified as dangerous goods as cargo on board an aircraft; and~~

~~5) provide the pilot in command with accurate and legible written or printed information concerning dangerous goods that are to be carried as cargo.~~

~~*Note.— Article 35 of the Convention refers to certain classes of cargo restrictions.*~~

14.4 PROVISION OF INFORMATION

The operator shall ensure that all personnel, including third-party personnel, involved in the acceptance, handling, loading and unloading of cargo are informed of the operator's specific approval and limitations with regard to the transport of dangerous goods.

14.5 DOMESTIC COMMERCIAL AIR TRANSPORT OPERATIONS

Recommendation.— The International Standards and Recommended Practices set forth in this chapter should be applied by all Contracting States also in the case of domestic commercial air transport operations.

~~*Note.— Annex 18 contains a similar provision in this regard.*~~

. . .

APPENDIX 2. ORGANIZATION AND CONTENTS OF AN OPERATIONS MANUAL

(Chapter 4, 4.2.3.1, refers)

. . .

2. CONTENTS

The operations manual referred to in 1 shall contain at the least the following:

. . .

2.1 General

. . .

2.1.9 Ground handling arrangements and procedures, including information and instructions mentioned in 2.1.36.

. . .

2.1.36 Information and instructions on the carriage of dangerous goods, in accordance with Chapter 14, including those for:

a) crew members to enable them to carry out their responsibilities with regard to the transport of dangerous goods, including action to be taken in the event of an emergency involving dangerous goods; and

b) other operations personnel, including ground handling personnel, to enable them to carry out their responsibilities, including action to be taken in the event of an emergency involving dangerous goods.

Note.— Guidance material on the development of policies and procedures for dealing with dangerous goods incidents on board aircraft is contained in Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods *(Doc 9481)*.

. . .

2.4 Training

. . .

2.4.4 Details of the dangerous goods training programme as required by Chapter 14, 14.2 or 14.3.

. . .

ATTACHMENT B. AIR OPERATOR CERTIFICATION AND VALIDATION

Supplementary to Chapter 4, 4.2.1

. . .

3. AUTHORIZATIONS

. . .

3.1 Specific approval actions

. . .

3.1.2 The following provisions make explicit reference to the need for a specific approval:

. . .

g) dangerous goods [14.3.1].

. . .

3.3.2 Provisions that require an approval

The following provisions require or encourage approval by specified States. The approval of the State of the Operator is required in all of the certification actions listed below that are not preceded by one or more asterisks. Certification actions listed below that are preceded by one or more asterisks require approval by the State of Registry (single asterisk or "*"), or by the State of Design (double asterisk or "**"). However, the State of the Operator should take the necessary steps to ensure that operators for which it is responsible comply with any applicable approvals issued by the State of Registry and/or State of Design, in addition to its own requirements.

. . .

q) ~~Training in the transport of d~~Dangerous goods training programme (9.3.1 g), Note 5; 12.4 e), Notes 1 and 2; 14.2 a) and 14.3 a));

. . .

ATTACHMENT G. DANGEROUS GOODS

Supplementary to Chapter 14

Editorial Note.— Delete Sections 1 through 4 in their entirety and replace with new text below.

1. SPECIFIC APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS

1.1 The specific approval for the transport of dangerous goods should be granted based on the policies, operating procedures and training programmes of the operator. It may be granted with limitations, reflecting the capabilities and needs of the operator. Examples of such limitations include:

a) only permitting the transport of specific dangerous goods such as dry ice;

b) only permitting the transport of specific classes, for example: Class 9 (miscellaneous dangerous substances and articles, including environmentally hazardous substances) only or all classes except Class 7 (radioactive material);

c) only permitting the transport of dangerous goods under specific circumstances such as when they are dangerous goods of the operator or in mail; and

d) limitations that may differ by aircraft model, based on the capabilities of each model operated by the operator, or by type of operation, such as passenger or all-cargo operations.

1.2. The State of the Operator should indicate in the operations specification if the operator has been issued a specific approval for the transport dangerous goods. The most permissive criteria for granting it should be listed.

2. EXCEPTIONS

General exceptions from the Technical Instructions, such as dangerous goods carried on an aircraft to provide medical aid to a patient during flight, are addressed in Part 1, Chapter 1, of the Technical Instructions. Exceptions from the Technical Instructions for the operator to carry dangerous goods that are either equipment or for use on board the aircraft during flight are detailed in Part 1, Chapter 2, 2.2.1, of the Technical Instructions.

. . .

PART II — INTERNATIONAL GENERAL AVIATION — AEROPLANES

SECTION 1

GENERAL

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1.1 DEFINITIONS

Dangerous goods. Articles or substances which are capable of posing a ~~risk~~ hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

~~*Note.— Dangerous goods are classified in Annex 18, Chapter 3.*~~

. . .

Technical Instructions. The *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council.

. . .

SECTION 2. GENERAL AVIATION OPERATIONS

. . .

CHAPTER 2.2 FLIGHT OPERATIONS

. . .

2.2.5 Duties of pilot-in-command

. . .

2.2.5.4 If an in-flight emergency occurs, the pilot-in-command shall, as soon as the situation permits, inform the appropriate air traffic services unit[, for the information of aerodrome authorities,] of any dangerous goods on board the aircraft, as provided for in Part 7, Chapter 4, 4.3 of the Technical Instructions.

. . .

PART III — *INTERNATIONAL OPERATIONS — HELICOPTERS*

. . .

ABBREVIATIONS AND SYMBOLS
(used in this Annex)

. . .

~~COMAT Operator material~~

. . .

SECTION I

GENERAL

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. DEFINITIONS

. . .

Dangerous goods. Articles or substances which are capable of posing a ~~risk~~ hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

~~*Note. — Dangerous goods are classified in Annex 18, Chapter 3.*~~

. . .

Technical Instructions. The *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), approved and issued periodically in accordance with the procedure established by the ICAO Council.

. . .

SECTION II

INTERNATIONAL COMMERCIAL AIR TRANSPORT

CHAPTER 2. FLIGHT OPERATIONS

. . .

2.5 DUTIES OF PILOT-IN-COMMAND

. . .

2.5.6 If an in-flight emergency occurs, the pilot-in-command shall, as soon as the situation permits, inform the appropriate air traffic services unit[, for the information of aerodrome authorities,] of any dangerous goods on board the aircraft, as provided for in Part 7, Chapter 4, 4.3, of the Technical Instructions.

. . .

4.2 ALL HELICOPTERS ON ALL FLIGHTS

. . .

4.2.3 A helicopter shall carry:

a) the operations manual prescribed in 2.2.2, or those parts of it that pertain to flight operations and emergency response;

b) the helicopter flight manual for the helicopter, or other documents containing performance data required for the application of Chapter 3 and any other information necessary for the operation of the helicopter within the terms of its certificate of airworthiness, unless these data are available in the operations manual; and

c) current and suitable charts to cover the route of the proposed flight and any route along which it is reasonable to expect that the flight may be diverted.

. . .

CHAPTER 7. HELICOPTER FLIGHT CREW

. . .

7.3 FLIGHT CREW MEMBER TRAINING PROGRAMMES

7.3.1 The operator shall establish and maintain a ground and flight training programme, approved by the State of the Operator, which ensures that all flight crew members are adequately trained to perform their assigned duties. The training programme shall:

a) include ground and flight training facilities and properly qualified instructors as determined by the State of the Operator;

b) consist of ground and flight training for the type(s) of helicopter on which the flight crew member serves;

c) include proper flight crew coordination and training for all types of emergency and abnormal situations or procedures caused by engine, transmission, rotor, airframe or systems malfunctions, fire or other abnormalities;

d) include training that enables flight crew members to develop and maintain knowledge and skills related to:

1) the visual and instrument flight procedures for the intended area of operation~~,~~;

2) human performance and threat and error management~~,~~;

3) processes and procedures associated with the transport of dangerous goods and~~,~~;

4) where applicable, procedures specific to the environment in which the helicopter is to be operated;

e) ensure that all flight crew members know the functions for which they are responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures;

f) include training ~~in~~ that enables flight crew members to develop and maintain knowledge and skills related to the operational use of head-up display and/or enhanced vision systems for those helicopters so equipped; and

g) be given on a recurrent basis, as determined by the State of the Operator, and shall include an assessment of competence.

. . .

CHAPTER 12. DANGEROUS GOODS

Note 1.— The provisions of this chapter are amplified by provisions of Annex 18 and the Technical Instructions.

12.1 GENERAL ~~APPLICABILITY~~

The operator shall not transport dangerous goods as cargo unless it has been issued a specific approval for the transport of dangerous goods by the State of the Operator.

~~*Note 1.— Annex 18* — The Safe Transport of Dangerous Goods by Air *include broad provisions for the international transport of dangerous goods by air which are amplified in the* Technical Instructions for the Safe Transport of Dangerous Goods by Air *(Doc 9284, Technical Instructions). Annex 18, Chapter 2 includes provisions making dangerous goods under certain conditions not subject to Annex 18. These are amplified in Parts 1;1 and 1;2 of the Technical Instructions.*~~

~~*Note 2.— Due to the differences in the type of operations carried out by helicopters, compared to those of aeroplanes, some additional considerations need to be made when dangerous goods are carried by helicopter, as described in the* Technical Instructions for the Safe Transport of Dangerous Goods by Air *(Doc 9284, Technical Instructions), Part 7;7.*~~

~~12.2 STATE RESPONSIBILITIES~~

~~*Note 1.— Annex 18, Chapter 2, contains requirements for each State to take the necessary measures to achieve compliance with the detailed provisions contained in the Technical Instructions.*~~

~~*Note 2.— Operator responsibilities for the transport of dangerous goods are contained in Chapters 8, 9 and 10 of Annex 18. Part 7 of the Technical Instructions contains the operator's responsibilities and requirements for incident and accident reporting.*~~

~~*Note 3.— Annex 18, Chapter 11 contains requirements for each Contracting State to establish oversight procedures for all entities (including packers, shippers, ground handling agents and operators) performing dangerous goods functions.*~~

~~*Note 4.— The requirements pertaining to crew members or passengers carrying dangerous goods on aircraft are set forth in Part 8;1, of the Technical Instructions.*~~

~~*Note 5.— Operator material (COMAT) that meets the classification criteria of the Technical Instructions for dangerous goods are considered cargo and must be transported in accordance with Part 1;2;2.2 of the Technical Instructions (e.g. aircraft parts such as chemical oxygen generators, fuel control units, fire extinguishers, oils, lubricants and cleaning products).*~~

12.~~3~~2 OPERATORS WITH NO SPECIFIC APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS ~~AS CARGO~~

The State of the Operator shall ensure that operators with no specific approval ~~to~~ for the transport of dangerous goods have:

a) established a dangerous goods training programme that meets the requirements of Annex 18, ~~the applicable requirements of the Technical Instructions, Part 1;4~~ Chapter 9 ~~and the requirements of the State's regulations, as appropriate~~. Details of the dangerous goods training programme shall be included in the ~~operators'~~ operations manual~~s~~; and

b) established dangerous goods ~~policies and~~ procedures, instructions and guidance in ~~their~~ the operations manual~~s~~ to enable personnel to ~~meet~~ execute, at a minimum, the requirements of Annex 18, ~~the Technical Instructions and the State's regulations to allow operator personnel to:~~ Chapter 6, 6.1.

~~1) identify and reject undeclared dangerous goods, including COMAT classified as dangerous goods; and~~

~~2) report to the appropriate authorities of the State of the Operator, and the State in which it occurred, any:~~

~~i) occasions when undeclared dangerous goods are discovered in cargo or mail; and~~

~~ii) dangerous goods accidents and incidents.~~

12.~~4~~3 OPERATORS WITH A SPECIFIC APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS ~~AS CARGO~~

~~12.4.1 Overview~~

~~The State of the Operator shall issue~~ When issuing a specific approval for the transport of dangerous goods ~~and~~, the State of the Operator shall ensure that the operator has:

a) establishe~~s~~d a dangerous goods training programme that meets the requirements ~~in the Technical Instructions, Part 1;4~~ of Annex 18, Chapter 9~~, and the requirements of the State regulations, as appropriate~~. Details of the dangerous goods training programme shall be included in the ~~operator's~~ operations manual~~s~~; and

b) establishe~~s~~d dangerous goods ~~policies and~~ procedures, instructions and guidance in ~~its~~ the operations manual ~~to meet~~ to enable personnel to execute, at a minimum, the requirements of Annex 18, ~~the Technical Instructions and the State's regulations to enable operator personnel to~~ Chapter 6, 6.2.~~:~~

~~1) identify and reject undeclared or misdeclared dangerous goods in cargo or mail, including COMAT classified as dangerous goods;~~

~~2) report to the appropriate authorities of the State of the Operator, and the State in which it occurred, any:~~

~~i) occasions when undeclared or misdeclared dangerous goods are discovered in cargo or mail; and~~

~~ii) dangerous goods accidents and incidents;~~

~~3) report to the appropriate authorities of the State of the Operator any occasions when dangerous goods are discovered to have been carried:~~

~~i) when not loaded, segregated, separated or secured in accordance with the Technical Instructions, Part 7;2; and~~

~~ii) without information having been provided to the pilot-in-command;~~

~~4) accept, handle, store, transport, load and unload dangerous goods, including COMAT classified as dangerous goods as cargo on board an aircraft; and~~

~~5) provide the pilot-in-command with accurate and legible written or printed information concerning dangerous goods that are to be carried as cargo;~~

~~i) for helicopter operations, with the approval of the State of the Operator, the information provided to the pilotin-command may be abbreviated or briefed by other means (e.g. radio communication, as part of the working flight documentation such as a journey log or operational flight plan) where circumstances make it impractical to produce written or printed information or a dedicated form (see the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284SU), Part S-7;4.8).~~

~~12.4.2 Loading and securing of dangerous goods~~

~~Packages or overpacks of dangerous goods bearing the "cargo aircraft only" label shall be loaded on a helicopter performing cargo only operations in accordance with Part 7;2.4.1 of the Technical Instructions.~~

~~12.4.3 Dispensing or expending of dangerous goods from helicopters~~

~~*Note. — These provisions refer to operations where dangerous goods are carried on helicopters with the intent to dispense the items in flight (e.g. for the purpose of avalanche control).*~~

~~12.4.3.1 Each operator shall prepare and keep current a manual containing operational guidelines and handling procedures for the use and guidance of flight, maintenance and ground personnel concerned in the dispensing or expending of dangerous goods.~~

~~12.4.3.2 No person, other than a required flight crew member, or person necessary for handling or dispensing the dangerous goods, shall be carried on the aircraft.~~

~~12.4.3.3 The operator of the aircraft shall have prior permission for the dispensing or expending of dangerous goods from the owners of any airport to be used.~~

12.~~5~~4 PROVISION OF INFORMATION

The operator shall ensure that all personnel, including third-party personnel, involved in the acceptance, handling, loading and unloading of cargo are informed of the operator's specific approval and limitations with regard to the transport of dangerous goods.

12.~~6~~5 DOMESTIC COMMERCIAL AIR TRANSPORT OPERATIONS

Recommendation.— *The International Standards and Recommended Practices set forth in this chapter should be applied by all Contracting States, including in the case of domestic commercial air transport operations.*

~~*Note. — Annex 18 contains a similar provision in this regard.*~~

. . .

APPENDIX 7. CONTENTS OF AN OPERATIONS MANUAL

Supplementary to Section II, Chapter 2, 2.2.3.1

. . .

2. CONTENTS

The operations manual referred to in 1.1 shall contain at the least the following:

. . .

2.1 General

. . .

2.1.8 Ground handling arrangements and procedures, including information and instructions mentioned in 2.1.28.

. . .

2.1.28 Information and instructions on the carriage of dangerous goods, in accordance with Chapter 12, including those for:

a) crew members to enable them to carry out their responsibilities with regard to the transport of dangerous goods, including action to be taken in the event of an emergency involving dangerous goods.

b) other operating personnel of the operator, including its ground handling personnel, to enable them to carry out their responsibilities, including action to be taken in the event of an emergency involving dangerous goods.

Note.— Guidance material on the development of policies and procedures for dealing with dangerous goods incidents on board aircraft is contained in Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods *(Doc 9481).*

. . .

2.4 Training

. . .

2.4.4 Details of the dangerous goods training programme as required by Chapter 12, 12.2 or 12.3.

. . .

ANNEX 6 — PART III

ATTACHMENTS

. . .

ATTACHMENT C. AIR OPERATOR CERTIFICATION AND VALIDATION

Supplementary to Section II, Chapter 2, 2.2.1

3. AUTHORIZATIONS

. . .

3.1 Specific approval actions

. . .

3.1.2 The following provisions make explicit reference to the need for a specific approval:

a) operational credits for operations with advanced aircraft when used for low visibility operations [Section II, 2.2.8.1.1];

b) low visibility operations [Section II, 2.2.8.4 and 2.2.8.5];

c) electronic flight bags [Section II, 4.17.2]; ~~and~~

d) AR navigation specifications for PBN operations [Section II, 5.2.4]~~.~~; and

e) dangerous goods [12.1].

. . .

3.3 Approval actions

. . .

3.3.2 Provisions that require an approval

The following provisions require or encourage approval by specified States. The approval of the State of the Operator is required in all of the certification actions listed below that are not preceded by one or more asterisks. Certification actions listed below that are preceded by one or more asterisks require approval by the State of Registry (single asterisk or "*"), or by the State of Design (double asterisk or "**"). However, the State of the Operator should take the necessary steps to ensure that operators for which it is responsible comply with any applicable approvals issued by the State of Registry and/or State of Design, in addition to its own requirements.

k) ~~Training in the transport of d~~Dangerous goods training programme (Section II, 7.3.1 f), Note 5; 10.3 e), Notes 1 and 2; 12);

. . .

ATTACHMENT G. DANGEROUS GOODS

(Supplementary to Section II, Chapter 12)

. . .

Editorial Note.— Delete Sections 1 through 4 in their entirety and replace with new text below.

1. SPECIFIC APPROVAL FOR THE TRANSPORT OF DANGEROUS GOODS

1.1 The specific approval for the transport of dangerous goods should be granted based on the policies, operating procedures and training programmes of the operator. It may be granted with limitations, reflecting the capabilities and needs of the operator. Examples of such limitations include:

a) only permitting the transport of specific dangerous goods such as dry ice;

b) only permitting the transport of specific classes, for example: Class 9 (miscellaneous dangerous substances and articles, including environmentally hazardous substances) only or all classes except Class 7 (radioactive material);

c) only permitting the transport of dangerous goods under specific circumstances such as when they are dangerous goods of the operator or in mail; and

d) limitations that may differ by aircraft model, based on the capabilities of each model operated by the operator, or by type of operation, such as passenger or all-cargo operations.

1.2. The State of the Operator should indicate in the operations specification if the operator has been issued a specific approval to transport dangerous goods. The most permissive criteria for granting it should be listed.

2. EXCEPTIONS

General exceptions from the Technical Instructions, such as dangerous goods carried on an aircraft to provide medical aid to a patient during flight, are addressed in Part 1, Chapter 1, of the Technical Instructions. Exceptions from the Technical Instructions for the operator to carry dangerous goods that are either equipment or for use on board the aircraft during flight are detailed in Part 1, Chapter 2, 2.2.1, of the Technical Instructions.

. . .

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..

APPENDIX B

PROPOSED AMENDMENT TO ANNEX 18

PROPOSED AMENDMENT TO

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

ANNEX 6

TO THE CONVENTION ON INTERNATIONAL CIVIL AVIATION

OPERATION OF AIRCRAFT

PART I — *INTERNATIONAL COMMERCIAL AIR TRANSPORT — AEROPLANES*

NOTES ON THE EDITORIAL PRESENTATION OF THE PROPOSED AMENDMENT

The text of the amendment is arranged to show deleted text with a line through it and new text highlighted with grey shading, as shown below:

1.	~~Text to be deleted is shown with a line through it~~.	text to be deleted
2.	New text to be inserted is highlighted with grey shading.	new text to be inserted
3.	~~Text to be deleted is shown with a line through it~~ followed by the replacement text which is highlighted with grey shading.	new text to replace existing text

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FOREWORD

Historical background

Annex 18 governs the international transport of dangerous goods by air. The ~~material in this Annex was~~ provisions in it were developed by the Air Navigation Commission in response to a need expressed by ~~Contracting~~ States for an internationally agreed set of provisions governing the safe transport of dangerous goods by air. ~~In order to assist in achieving compatibility with the regulations covering the transport of dangerous goods by other modes of transport, the provisions of this Annex are based on the Recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods and the Regulations for the Safe Transport of Radioactive Materials of the International Atomic Energy Agency.~~ This Annex was originally adopted by the ICAO Council on 26 June 1981 and became applicable on 1 January 1984.

Relationship with the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284)

The broad provisions of Annex 18 ~~govern the international transport of dangerous goods by air. The broad provisions of this Annex~~ are amplified by the detailed specifications of the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284~~).~~) (Technical Instructions). The provisions of the Technical Instructions are based on recommendations on the transport of dangerous goods developed for all modes of transport by the United Nations Economic and Social Council's Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals. The intent of using this common base by all modes of transport is to allow cargo to be transferred safely and efficiently between air, sea, rail and road modes. Modifications from these recommendations are made in the Technical Instructions to address specific aviation safety needs while keeping in mind the need to ensure compatibility with other modes of transport.

Status of the Technical Instructions

The detailed specifications of the Technical Instructions are considered binding on a State by virtue of the provisions in Chapter 2, 2.2 of this Annex unless the State has notified differences to these provisions under Article 38 of the Convention on International Civil Aviation.

Amendments to Annex 18 and the Technical Instructions

Annex 18 is intended to contain stable material requiring only minor amendments using the normal Annex amendment process. The Technical Instructions require more substantial and frequent amendments to remain responsive to day-to-day operational needs.

The Air Navigation Commission established the Dangerous Goods Panel (DGP) and tasked it with maintaining the Technical Instructions. Amendments to the Technical Instructions are recommended by the

DGP, reviewed by the Air Navigation Commission and approved and published by decision of the Council of ICAO. The DGP develops the recommended amendments in response to reports of difficulties encountered in the application of the Technical Instructions, changes to the recommendations of the United Nations Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals, and safety and facilitation issues specific to air transport. Amendments recommended by the DGP are published in panel meeting reports and made publicly available at www.icao.int/dangerous-goods. Action taken by the Air Navigation Commission or the Council on the recommendations is published in the Supplement to DGP meeting reports and made available at www.icao.int/dangerous-goods.

A new edition of the Technical Instructions is published every two years. Amendments to the Technical Instructions during the specific period of applicability of an edition of the document may also be published if deemed necessary. *ICAO Publications Regulations* (Doc 7231) provides information on the availability and distribution of ICAO publications, including protected top-selling publications such as the Technical Instructions. Amendments during the specific period of applicability are made available at www.icao.int/dangerous-goods.

Guidance

Guidance to States on the implementation of Annex 18 is contained in the *Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air (Doc xxxxx, forthcoming).*

The Technical Instructions are supported by the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284SU). The Supplement contains guidance to assist States when considering authorizations to transport dangerous goods by air that the Technical Instructions forbid under normal circumstances through approvals or exemptions.

———————

INTERNATIONAL STANDARDS AND RECOMMENDED PRACTICES

CHAPTER 1. DEFINITIONS

When the following terms are used in this Annex, they have the following meanings:

Appropriate national authority. Any authority designated, or otherwise recognized, by a State to perform specific functions related to provisions contained in this Annex or the Technical Instructions.

. . .

Baggage. Personal property of passengers or crew carried on an aircraft by agreement with the operator.

Cargo. Any property carried on an aircraft other than mail and accompanied or mishandled baggage.

Note.— This definition differs from the definition of "cargo" given in Annex 9 — Facilitation *that excludes stores (supplies) from cargo.*

~~***Cargo aircraft.*** Any aircraft, other than a passenger aircraft, which is carrying goods or property.~~

Consignee. Any person, organization or government which is entitled to take delivery of a consignment.

. . .

Dangerous goods. Articles or substances which are capable of posing a ~~risk~~ hazard to health, safety, property or the environment and which are shown in the list of dangerous goods in the Technical Instructions or which are classified according to those Instructions.

Dangerous goods accident. An occurrence associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, which results in fatal or serious injury to a person or major property or environmental damage.

Dangerous goods incident. An occurrence, other than a dangerous goods accident, associated with and related to the transport of dangerous goods by air, not necessarily occurring on board an aircraft, ~~which results in injury to~~ where:

a) a person is injured~~,~~;

b) there is property or environmental damage~~,~~;

c) there is fire, breakage, spillage, leakage of ~~fluid~~ contents or radiation or there is other evidence that the integrity of the packaging has not been maintained~~.~~; ~~Any occurrence relating to the transport of dangerous goods which seriously jeopardizes~~ or

d) the safety of the aircraft or its occupants is ~~also deemed to constitute a dangerous goods incident~~ jeopardized.

. . .

~~***Exception.*** A provision in this Annex which excludes a specific item of dangerous goods from the requirements normally applicable to that item.~~

. . .

~~***Flight crew member.*** A licensed crew member charged with duties essential to the operation of an aircraft during a flight duty period.~~

Misdeclared dangerous goods. Dangerous goods offered for transport by air with incorrect documentation, marks or labels.

Mail. Dispatches of correspondence and other items tendered by, and intended for delivery to, postal services in accordance with the rules of the Universal Postal Union (UPU).

Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Overpack. An enclosure used by a single shipper to contain one or more packages and to form one handling unit for convenience of handling and stowage.

Note.— A unit load device is not included in this definition.

Package. The complete product of the packing operation consisting of the packaging and its contents prepared for transport.

Packaging. ~~Receptacles~~One or more receptacles and any other components or materials necessary for the ~~receptacle~~receptacles to perform ~~its~~their containment ~~function~~and other safety functions.

Note.— For radioactive material, see Part 2, ~~paragraph~~Chapter 7 ~~2~~, 7.1.3, of the Technical Instructions.

~~***Passenger aircraft.*** An aircraft that carries any person other than a crew member, an operator's employee in an official capacity, an authorized representative of an appropriate national authority or a person accompanying a consignment or other cargo.~~

. . .

Remote pilot-in-command. The remote pilot designated by the operator as being in command and charged with the safe conduct of a flight.

Safety management system (SMS). A systematic approach to managing safety, including the necessary organizational structures, ~~accountabilities~~accountability, responsibilities, policies and procedures.

. . .

State of Occurrence. The State in the territory of which an accident or incident occurs.

. . .

~~***UN number.*** The four-digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals to identify an article or substance or a particular group of articles or substances.~~

Undeclared dangerous goods. Dangerous goods offered for transport by air that are not identified as dangerous goods in accordance with the Technical Instructions.

Unit load device ~~. Any type of freight container,~~ ***(ULD).*** A device for grouping and restraining cargo, mail and baggage for air transport. It is either an aircraft container~~,~~ or a combination of an aircraft pallet ~~with a net, or~~ and an aircraft pallet ~~with a net over an igloo~~net. A ULD is designed to be directly restrained by the aircraft cargo loading system.

Note 1.— An overpack is not included in this definition.

Note 2.— A freight container for radioactive material is not included in this definition (see Part 2, Chapter 7, 7.1.3, of the Technical Instructions).

———————

CHAPTER 2. ~~APPLICABILITY~~GENERAL

2.1 ~~General a~~Applicability

2.1.1 The Standards and Recommended Practices of this Annex shall be applicable to ~~all~~ international ~~operations of~~ civil ~~aircraft~~ aviation.

Editorial Note.— Paragraphs 2.1.2, 2.1.3 and 2.1.4 of current Annex 18 are moved to proposed 2.4.2.1 and 2.4.2.2.

~~2.1.2 Where specifically provided for in the Technical Instructions, the States concerned may grant an approval provided that in such instances an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions is achieved.~~

~~2.1.3 In instances:~~

~~a) of extreme urgency; or~~

~~b) when other forms of transport are inappropriate; or~~

~~c) when full compliance with the prescribed requirements is contrary to the public interest,~~

~~the States concerned may grant an exemption from the provisions of the Technical Instructions provided that in such instances every effort shall be made to achieve an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions.~~

~~2.1.4 For the State of Overflight, if none of the criteria for granting an exemption are relevant, an exemption may be granted based solely on whether it is believed that an equivalent level of safety in air transport has been achieved.~~

~~*Note 1. For the purpose of approvals, "States concerned" are the States of Origin and the Operator, unless otherwise specified in the Technical Instructions.*~~

~~*Note 2. For the purpose of exemptions, "States concerned" are the States of Origin, Operator, Transit, Overflight and Destination.*~~

~~*Note 3. Guidance for the processing of exemptions, including examples of extreme urgency, may be found in the Supplement to the Technical Instructions (Part S-1, Chapter 1, 1.2 and 1.3).*~~

~~*Note 4. Refer to 4.3 for dangerous goods forbidden for transport by air under any circumstances.*~~

~~*Note 5. It is not intended that this Annex be interpreted as requiring an operator to transport a particular article or substance or as preventing an operator from adopting special requirements on the transport of a particular article or substance.*~~

Editorial Note.— Paragraph 2.2 of current Annex 18 is moved below, remaining as paragraph 2.2.

~~**2.2 Dangerous Goods Technical Instructions**~~

~~2.2.1 Each Contracting State shall take the necessary measures to achieve compliance with the detailed provisions contained in the Technical Instructions. Each Contracting State shall also take the necessary measures to achieve compliance with any amendment to the Technical Instructions which may be published during the specified period of applicability of an edition of the Technical Instructions.~~

~~2.2.2 **Recommendation.** *Each Contracting State should inform ICAO of difficulties encountered in the application of the Technical Instructions and of any amendments which it would be desirable to make to them.*~~

~~2.2.3 **Recommendation.** *Although an amendment to the Technical Instructions with an immediate applicability for reasons of safety may not yet have been implemented in a Contracting State, such State should, nevertheless, facilitate the movement of dangerous goods in its territory which are consigned from another Contracting State in accordance with that amendment, providing the goods comply in total with the revised requirements.*~~

~~**2.3 Domestic civil aircraft operations**~~

2.1.2 **Recommendation.**— ~~*In the interests of safety and of minimizing interruptions to the international transport of dangerous goods, Contracting*~~ *Each State*~~*s*~~ *should*~~ *also take the necessary measures to achieve compliance with the Annex and the Technical Instructions for*~~ *apply the Standards and Recommended Practices contained in this Annex to domestic civil*~~ *aircraft operations*~~ *aviation*.

~~**2.4 Exceptions**~~

~~2.4.1~~2.1.3 Articles and substances which would otherwise be~~ classed~~ classified as dangerous goods but which are required to be aboard the aircraft in accordance with the pertinent airworthiness requirements and operating regulations, or for those specialized purposes identified in the Technical Instructions, shall be excepted from the provisions of this Annex.

~~2.4.2~~2.1.4 Where articles and substances intended as replacements for those described in ~~2.4.1~~ 2.1.3 or which have been removed for replacement are carried on an aircraft, they shall be transported in accordance with the provisions of this Annex except as permitted in the Technical Instructions.

~~2.4.3 Specific articles and substances carried by passengers or crew members shall be excepted from the provisions of this Annex to the extent specified in the Technical Instructions.~~

2.2 ~~Dangerous Goods~~Compliance with the Technical Instructions

2.2.1 Each~~ Contracting~~ State shall~~ take the necessary~~ implement measures to ensure that any individual or organization that offers, accepts or transports dangerous goods as cargo or mail by air or

causes dangerous goods to be offered, accepted or transported as cargo or mail by air achieves compliance with the detailed provisions contained in the Technical Instructions.

2.2.2 Each State shall implement measures to ensure that passengers and crew members achieve compliance with the detailed provisions contained in Part 8 of the Technical Instructions.

2.2.3 Each ~~Contracting~~ State shall ~~also take the necessary~~ implement measures to ensure that the individuals or organizations referred to in 2.2.1 and 2.2.2 achieve compliance with any amendment to the Technical Instructions which may be published during the specified period of applicability of an edition of the Technical Instructions.

Editorial Note.— Paragraph 2.2.2 of current Annex 18 is moved to 3.3 in the proposed new Chapter 3.

~~2.2.2 **Recommendation.** *Each Contracting State should inform ICAO of difficulties encountered in the application of the Technical Instructions and of any amendments which it would be desirable to make to them.*~~

~~2.2.3~~2.2.4 **Recommendation.—** *Although an amendment to the Technical Instructions with an immediate applicability for reasons of safety may not yet have been implemented in a ~~Contracting~~ State, such State should, nevertheless, facilitate the movement of dangerous goods in its territory which are consigned from another ~~Contracting~~ State in accordance with that amendment, providing the goods comply in total with the revised requirements.*

Editorial Note.— Paragraph 2.5 of current Annex 18 is moved to 3.2 in the proposed new Chapter 3.

~~**2.5 Notification of variations from the Technical Instructions**~~

~~2.5.1 Where a Contracting State adopts different provisions from those specified in the Technical Instructions, it shall notify ICAO promptly of such State variations for publication in the Technical Instructions.~~

~~*Note. Contracting States are expected to notify a difference to the provisions of 2.2.1 under Article 38 of the Convention only if they are unable to accept the binding nature of the Technical Instructions. Where States have adopted different provisions from those specified in the Technical Instructions, they are expected to be reported only under the provisions of 2.5.*~~

~~2.5.2 **Recommendation.** — *The State of the Operator should take the necessary measures to ensure that when an operator adopts more restrictive requirements than those specified in the Technical Instructions, the notification of such operator variations is made to ICAO for publication in the Technical Instructions.*~~

~~**2.6 Surface transport**~~

2.2.5 **Recommendation.—** Each *State~~s~~ should ~~make provisions~~ implement measures to enable dangerous goods intended for air transport and prepared in accordance with the ~~ICAO~~ Technical Instructions to be accepted for ~~surface~~ transport by other modes of transport to or from aerodromes.*

Editorial Note.— Paragraph 2.7 of current Annex 18 is moved to 3.1 in the proposed new Chapter 3.

~~**2.7 National authority**~~

~~Each Contracting State shall designate and specify to ICAO an appropriate authority within its administration to be responsible for ensuring compliance with this Annex.~~

2.3 Designation of national authority and functions

2.3.1 Each State shall designate an appropriate national authority to be responsible for ensuring compliance with this Annex.

Note.— One or more appropriate national authorities may be designated to achieve compliance with this Annex, and such authorities may differ from one State to another. The designation may depend on factors such as the complexity of the State's air transport system, the State's legal system, or other State-specific considerations.

2.3.2 Each State shall ensure that the State functions and activities necessary for overseeing and managing the safety of the transport of dangerous goods by air in compliance with the Standards of this Annex and the Technical Instructions are established, coordinated and maintained in accordance with Annex 19, Chapter 3.

Editorial Note.— Proposed paragraphs 2.4, 2.4.1 and 2.4.2 are moved from Chapter 4 of current Annex 18.

~~**CHAPTER 4.**~~ **2.4 Limitation on the transport of dangerous goods by air**

~~**4.1**~~**2.4.1 Dangerous goods permitted for transport by air**

2.4.1.1 Each State shall permit ~~T~~the transport of dangerous goods as cargo or mail by air ~~shall be forbidden except~~ only as established in this Annex and ~~the~~ in accordance with the Annexes to the Convention on International Civil Aviation and the detailed specifications ~~and procedures provided in~~ of the Technical Instructions.

2.4.1.2 Each State shall permit the carriage of dangerous goods by passengers or crew members only when specifically permitted in accordance with Part 8 of the Technical Instructions.

~~**4.2**~~**2.4.2 Dangerous goods forbidden for transport by air unless approved or exempted**

~~The dangerous goods described hereunder shall be forbidden on aircraft unless exempted by the States concerned under the provisions of 2.1 or~~ Each State shall forbid the transport of dangerous goods identified

in the Technical Instructions as being forbidden for transport by air under normal circumstances unless the provisions of the Technical Instructions indicate they may be transported under an approval granted by the ~~State of Origin~~ States concerned in accordance with 2.4.2.1 or an exemption granted by the States concerned in accordance with 2.4.2.2~~:~~.

~~a) dangerous goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances; and~~

~~b) infected live animals.~~

Editorial Note.— Proposed 2.4.2.1 is moved from 2.1.2 of current Annex 18:

~~2.1.2~~2.4.2.1 *Approvals*

Where specifically provided for in the Technical Instructions, the States concerned may grant an approval provided that in such instances an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions is achieved.

Editorial Note.— The following note is moved from under 2.1.4 of current Annex 18.

Note ~~1~~.— For the purpose of approvals, "States concerned" are the States of Origin and the Operator, unless otherwise specified in the Technical Instructions.

Editorial Note.— Proposed 2.4.2.2 is moved from 2.1.3 of current Annex 18.

~~2.1.3~~2.4.2.2 *Exemptions*

In instances:

a) of extreme urgency; or

b) when other forms of transport are inappropriate; or

c) when full compliance with the prescribed requirements is contrary to the public interest,

the States concerned may grant an exemption from the provisions of the Technical Instructions provided that in such instances every effort shall be made to achieve an overall level of safety in transport which is equivalent to the level of safety provided for in the Technical Instructions.

Editorial Note.— The following is moved from 2.1.4 of current Annex 18:

~~2.1.4 For the State of Overflight, if none of the criteria for granting an exemption are relevant, an exemption may be granted based solely on whether it is believed that an equivalent level of safety in air transport has been achieved.~~

~~*Note 1. For the purpose of approvals, "States concerned" are the States of Origin and the Operator, unless otherwise specified in the Technical Instructions.*~~

Note ~~2~~1.— For the purpose of exemptions, "States concerned" are the States of Origin, Operator, Transit, Overflight and Destination.

Note ~~3~~2.— Guidance for the processing of exemptions, including examples of extreme urgency, may be found in the Supplement to the Technical Instructions (Part S-1, Chapter 1~~, 1.2 and 1.3~~) and the Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air *(Doc xxxxx, forthcoming)*.

~~*Note 4.— Refer to 4.3 for dangerous goods forbidden for transport by air under any circumstances.*~~

~~*Note 5.— It is not intended that this Annex be interpreted as requiring an operator to transport a particular article or substance or as preventing an operator from adopting special requirements on the transport of a particular article or substance.*~~

Editorial Note.— Proposed paragraphs 2.4.3 is moved from 4.3 of current Annex 18.

2.4.3 Dangerous goods forbidden for transport by air under any circumstances

2.4.3.1 Each State shall forbid any article or substance to be transported by air under any circumstance if, as presented for transport, it is:

a) liable to explode, dangerously react or produce a flame or dangerous evolution of heat or dangerous emission of toxic, corrosive or flammable gases or vapours under conditions normally encountered in transport; or

b) ~~Articles and substances that are~~ specifically identified by name or by generic description in the Technical Instructions as being forbidden for transport by air under any circumstances ~~shall not be carried~~ on any aircraft.

2.4.3.2 Each State shall not grant an approval or exemption for articles and substances identified in 2.4.3.1.

Note.— Guidance on dangerous goods forbidden for transport by air under any circumstance is provided in the Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air *(Doc xxxx, forthcoming).*

CHAPTER 3. ~~CLASSIFICATION~~PROVISION OF INFORMATION TO ICAO

~~The classification of an article or substance shall be in accordance with the provisions of the Technical Instructions.~~

~~*Note.— The detailed definitions of the classes of dangerous goods are contained in the Technical Instructions. These classes identify the potential risks associated with the transport of dangerous goods by air and are those recommended by the United Nations Committee of Experts on the Transport of Dangerous Goods.*~~

Editorial Note.— Paragraph 3.1 is moved from 2.7 of current Annex 18:

~~2.7~~3.1 National authority

Each ~~Contracting~~ State shall ~~designate and~~ specify to ICAO ~~an~~ the appropriate national authority ~~within its administration to be~~ designated in accordance with Chapter 2, 2.3.1 as responsible for ensuring compliance with this Annex.

Editorial Note.— Paragraph 3.2 is moved from 2.5 of current Annex 18:

~~2.5~~3.2 Notification of variations from the Technical Instructions

~~2.5.1~~ Where a ~~Contracting~~ State adopts different provisions from those specified in the Technical Instructions, it shall notify ICAO promptly of such State variations for publication in the Technical Instructions.

Note.— ~~Contracting~~ Each State~~s are~~ is expected to notify ~~a~~ difference~~s~~ to the provisions of Chapter 2, 2.2~~.1~~ under Article 38 of the Convention only if they are unable to accept the binding nature of the Technical Instructions. Where States have adopted different provisions from those specified in the Technical Instructions, they are expected to be reported only under the provisions of ~~2.5~~ 3.2.

~~2.5.2 **Recommendation.** *The State of the Operator should take the necessary measures to ensure that when an operator adopts more restrictive requirements than those specified in the Technical Instructions, the notification of such operator variations is made to ICAO for publication in the Technical Instructions.*~~

3.3 Difficulties encountered in the application of the Technical Instructions

Editorial Note.— The following is moved from 2.2.2 of current Annex 18.

~~2.2.2~~ **Recommendation.—** *Each ~~Contracting~~ State should inform ICAO of difficulties encountered in the application of the Technical Instructions and of any amendments which it would be desirable to make to them.*

Editorial Note.— The provisions in current Chapter 4 are moved to 2.4.

CHAPTER 4. ~~LIMITATION ON THE TRANSPORT OF DANGEROUS GOODS BY AIR~~STATE SAFETY RISK MANAGEMENT

~~4.1 Dangerous goods permitted for transport by air~~

~~The transport of dangerous goods by air shall be forbidden except as established in this Annex and the detailed specifications and procedures provided in the Technical Instructions.~~

~~4.2 Dangerous goods forbidden for transport by air unless exempted~~

~~The dangerous goods described hereunder shall be forbidden on aircraft unless exempted by the States concerned under the provisions of 2.1 or unless the provisions of the Technical Instructions indicate they may be transported under an approval granted by the State of Origin:~~

~~a) dangerous goods that are identified in the Technical Instructions as being forbidden for transport in normal circumstances; and~~

~~b) infected live animals.~~

~~4.3 Dangerous goods forbidden for transport by air under any circumstances~~

~~Articles and substances that are specifically identified by name or by generic description in the Technical Instructions as being forbidden for transport by air under any circumstances shall not be carried on any aircraft.~~

Note.— Provisions relative to State safety risk management, as part of the State safety programme (SSP), are included in Annex 19 – Safety Management *and, to this effect, are applicable to this Annex. This chapter contains Standards addressing specific risks associated with the safe transport of dangerous goods that are common globally. Guidance on State responsibilities for managing safety risks associated with the safe transport of dangerous goods more generally is contained in the* Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air *(Doc xxxx, forthcoming).*

4.1 Approval and exemption obligations

4.1.1 Each State shall implement documented processes and procedures to ensure that individuals and organizations performing an activity related to the transport of dangerous goods by air meet the established requirements before they are allowed to exercise the privileges of an approval or exemption to conduct the relevant dangerous goods activity.

4.1.2 The process required by 4.1.1 shall require the individuals or organizations performing the dangerous goods activity to demonstrate how risks resulting from the activity can be managed.

Editorial Note.— Paragraph 4.2 replaces the provisions for investigating and compiling information concerning dangerous goods accidents and incidents in current Annex 18, Chapter 12.

4.2 Dangerous goods safety investigations

4.2.1 Each State shall establish a process to investigate dangerous goods accidents and dangerous goods incidents reported in accordance with Chapter 10, in support of the management of safety in the State.

Note.— Dangerous goods safety investigations are intended to be conducted within the appropriate national authority for dangerous goods with the intent of providing safety information that supports safety performance improvement. They are distinct from accident and incident investigations required under Annex 13, which are required to be conducted by the established accident investigation authority.

4.2.2 Each State shall implement a risk-based process for the analysis and investigation of:

a) undeclared or misdeclared dangerous goods discovered in cargo;

b) dangerous goods discovered in mail that are not permitted to be sent by post for air transport;

c) dangerous goods discovered in baggage or on the person that are not permitted to be carried by passengers or crew members; and

d) other safety issues

which are reported in accordance with Chapter 10, in support of the management of safety in the State.

Editorial Note.— Paragraph 4.2.3 is moved from 11.2 of existing Annex 18.

~~11.2 Cooperation between States~~

~~**Recommendation.**~~ 4.2.3 Each ~~Contracting~~ State ~~should~~ shall participate in cooperative efforts with other States conducting dangerous goods safety investigations, as appropriate ~~concerning violations of dangerous goods regulations~~, with the aim of resolving safety issues and eliminating ~~such violations~~ non compliance with dangerous goods regulations. ~~*Cooperative efforts could include coordination of investigations and enforcement actions; exchanging information on a regulated party's compliance history; joint inspections and other technical liaisons, exchange of technical staff, and joint meetings and conferences. Appropriate information that could be exchanged include safety alerts, bulletins or dangerous goods advisories; proposed and completed regulatory actions; incident reports; documentary and other evidence developed in the investigation of incidents; proposed and final enforcement actions; and educational/outreach materials suitable for public dissemination.*~~

4.3 Non-compliance

4.3.1 Dangerous goods transported as cargo or mail

4.3.1.1 Each State shall implement risk-based measures to prevent dangerous goods not in compliance with the Technical Instructions from being transported in cargo or mail by air as part of its safety risk management activities.

4.4.1.2 The measures required by 4.4.1.1 shall include:

a) ensuring that any individual or organization that offers or accepts dangerous goods for transport as cargo or mail by air, causes dangerous goods to be offered or accepted for transport as cargo or mail by air, or handles dangerous goods offered or accepted for transport as cargo or mail by air has processes and procedures in place to identify dangerous goods that are not in compliance with the Technical Instructions and to prevent them from being offered for transport by air or loaded on an aircraft; and

b) promoting the safe transport of dangerous goods by air and a positive safety culture throughout the supply chain.

4.4.2 Dangerous goods carried by passengers and crew

4.4.2.1 Each State shall implement risk-based measures to prevent passengers or crew from carrying dangerous goods on board an aircraft that they are not permitted to carry as part of its safety risk management activities.

4.4.2.3 The measures required by 4.4.2.1 shall include:

a) ensuring that entities handling baggage have processes and procedures in place to recognize dangerous goods that are not permitted to be carried by passengers or crew and to prevent them from being carried on an aircraft when they are discovered; and

b) increasing passenger and crew awareness of dangerous goods that they are forbidden to carry on an aircraft.

Editorial Note.— Paragraph 4.4.3 is moved from 11.3 of current Annex 18:

~~11~~4.4.3 ~~Penalties~~Management of safety risks associated with non compliance

~~11~~4.4.3.1 Each ~~Contracting~~ State shall take ~~such measures as it may deem~~ appropriate action to achieve compliance with its dangerous goods regulations, up to and including ~~the prescription of appropriate penalties for violations~~enforcement measures.

~~11~~4.4.3.2 **Recommendation.—** *Each Contracting State should take appropriate action to achieve compliance with its dangerous goods regulations, up to and including ~~the prescription of~~*

~~appropriate penalties for violations~~enforcement, when information about ~~a violation~~non-compliance is received from another Contracting State,~~ such as when a consignment of dangerous goods is found not to comply with the requirements of the Technical Instructions on arrival in a Contracting State and that State reports the matter to the State of Origin.~~

~~CHAPTER 5. PACKING~~

~~5.1 General requirements~~

~~Dangerous goods shall be packed in accordance with the provisions of this chapter and as provided for in the Technical Instructions.~~

~~5.2 Packagings~~

~~5.2.1 Packagings used for the transport of dangerous goods by air shall be of good quality and shall be constructed and securely closed so as to prevent leakage which might be caused in normal conditions of transport, by changes in temperature, humidity or pressure, or by vibration.~~

~~5.2.2 Packagings shall be suitable for the contents. Packagings in direct contact with dangerous goods shall be resistant to any chemical or other action of such goods.~~

~~5.2.3 Packagings shall meet the material and construction specifications in the Technical Instructions.~~

~~5.2.4 Packagings shall be tested in accordance with the provisions of the Technical Instructions.~~

~~5.2.5 Packagings for which retention of a liquid is a basic function, shall be capable of withstanding, without leaking, the pressure stated in the Technical Instructions.~~

~~5.2.6 Inner packagings shall be so packed, secured or cushioned as to prevent their breakage or leakage and to control their movement within the outer packaging(s) during normal conditions of air transport. Cushioning and absorbent materials shall not react dangerously with the contents of the packagings.~~

~~5.2.7 No packaging shall be reused until it has been inspected and found free from corrosion or other damage. Where a packaging is reused, all necessary measures shall be taken to prevent contamination of subsequent contents.~~

~~5.2.8 If, because of the nature of their former contents, uncleaned empty packagings may present a hazard, they shall be tightly closed and treated according to the hazard they constitute.~~

~~5.2.9 No harmful quantity of a dangerous substance shall adhere to the outside of packages.~~

~~CHAPTER 6. LABELLING AND MARKING~~

~~6.1 Labels~~

~~Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be labelled with the appropriate labels and in accordance with the provisions set forth in those Instructions.~~

~~6.2 Markings~~

~~6.2.1 Unless otherwise provided for in the Technical Instructions, each package of dangerous goods shall be marked with the proper shipping name of its contents and, when assigned, the UN number and such other markings as may be specified in those Instructions.~~

~~6.2.2 *Specification markings on packagings.* Unless otherwise provided for in the Technical Instructions, each packaging manufactured to a specification contained in those Instructions shall be so marked in accordance with the appropriate provisions of those Instructions and no packaging shall be marked with a packaging specification marking unless it meets the appropriate packaging specification contained in those Instructions.~~

~~6.3 Languages to be used for markings~~

~~**Recommendation.** *In addition to the languages required by the State of Origin and pending the development and adoption of a more suitable form of expression for universal use, English should be used for the markings related to dangerous goods.*~~

~~CHAPTER 7. SHIPPER'S RESPONSIBILITIES~~

~~7.1 General requirements~~

~~Before a person offers any package or overpack of dangerous goods for transport by air, that person shall ensure that the dangerous goods are not forbidden for transport by air and are properly classified, packed, marked, labelled and accompanied by a properly executed dangerous goods transport document, as specified in this Annex and the Technical Instructions.~~

~~7.2 Dangerous goods transport document~~

~~7.2.1 Unless otherwise provided for in the Technical Instructions, the person who offers dangerous goods for transport by air shall complete, sign and provide to the operator a dangerous goods transport document, which shall contain the information required by those Instructions.~~

~~7.2.2 The transport document shall bear a declaration signed by the person who offers dangerous goods for transport indicating that the dangerous goods are fully and accurately described by their proper shipping names and that they are classified, packed, marked, labelled, and in proper condition for transport by air in accordance with the relevant regulations.~~

~~7.3 Languages to be used~~

~~**Recommendation.** *In addition to the languages which may be required by the State of Origin and pending the development and adoption of a more suitable form of expression for universal use, English should be used for the dangerous goods transport document.*~~

CHAPTER 5. OFFERING DANGEROUS GOODS FOR TRANSPORT AS CARGO BY AIR

Note.— "Offering" dangerous goods for transport as cargo by air encompasses functions related to their safe transport that are performed prior to acceptance by the operator.

5.1 Preparing dangerous goods for transport as cargo by air

Each State shall require an individual or organization that offers dangerous goods for transport as cargo by air or causes dangerous goods to be offered for transport as cargo by air to ensure that:

1) associated hazards are identified in accordance with the classification criteria of Part 2 of the Technical Instructions;

2) risks associated with the identified hazards are mitigated at the package level through quantity limitations, packing and packaging requirements in accordance with Parts 3, 4 and 6 of the Technical Instructions;

3) hazard and handling information are communicated to entities in the supply chain in accordance with the marking, labelling and documentation requirements of Parts 3, 4 and 5 of the Technical Instructions; and

4) dangerous goods transport information required by the Technical Instructions is retained in accordance with the applicable provisions of the Technical Instructions.

5.2 Additional provisions concerning radioactive material

Each State shall require an individual or organization offering radioactive material or causing radioactive material to be offered for transport as cargo by air to comply with, in addition to the requirements in 5.1, the applicable general provisions concerning radioactive material in Part 1, Chapter 6, of the Technical Instructions.

5.3 Procedures, instructions and guidance

Each State shall require personnel performing functions related to offering dangerous goods for transport as cargo by air to be provided with procedures, instructions and guidance to enable their responsibilities related to the transport of dangerous goods by air to be met, including instructions on the action to be taken in the event of an emergency involving dangerous goods.

5.4 Establishment of training programmes

Each State shall require any entity that offers dangerous goods for transport as cargo by air or causes dangerous goods to be offered for transport as cargo by air to establish and maintain a dangerous goods training programme in accordance with Chapter 9.

CHAPTER ~~8~~ 6. OPERATOR'S RESPONSIBILITIES

Note 1.— ~~Annex 19 includes s~~Safety management provisions for air operators are included in Annex 19. Further guidance is contained in the Safety Management Manual (SMM) *(Doc 9859).*

Note 2.— The carriage of dangerous goods is included in the scope of the operator's safety management system (SMS).

Note 3.— Other provisions relative to operator's responsibilities are included in Annex 6 – Operation of Aircraft, *Part I –* International Commercial *Air Transport – Aeroplanes, Part II –* International General Aviation – Aeroplanes, *Part III –* International Operations – Helicopters, *and Part IV –* International Operations – Remotely Piloted Aircraft Systems, *including provisions for:*

a) specific approval to transport dangerous goods (Part I, Chapter 14 and Appendix 6, Part III, Chapter 12 and Appendix 3 and Part IV, Chapter 14 and Appendix 6)

b) operators to include dangerous goods procedures, instructions and guidance in their operations manual, including emergency procedures involving dangerous goods (Part I. Chapter 14 and Appendix 2; Part III, Section II, Chapter 12 and Appendix 8, and Annex 6, Part IV, Chapter 14 and Appendix 2);

c) operators to establish dangerous goods training programmes (Part I, Chapter 14, Part III, Chapter 12 and Part IV, Chapter 14);

d) dangerous goods training for flight crew and cabin crew members (Part I, Chapters 9, 12 and 14; Part III, Chapters 7 and 12 and Part IV, Chapter 9);

e) cargo compartment safety (Part I, Chapter 15, and Part IV, Chapter 15); and

f) work performed by third parties on behalf of the operator (Part I, Chapters 4 and 14, *Part III, Chapters 2 and 12, and Part IV, Chapters 4 and 14).*

Note 4.— It is not intended that this Annex be interpreted as requiring an operator to transport a particular article or substance. It is also not intended to prevent an operator from adopting requirements on the transport of a particular article or substance in addition to what is required by this Annex.

6.1 Operators with no specific approval for the transport of dangerous goods

Note.— Specific approval in the context of this chapter refers to an approval issued to an air operator by the State of the Operator in accordance with Annex 6.

6.1.1 Dangerous goods carried by passengers and crew members

6.1.1.1 The operator shall ensure that measures are in place to mitigate the risk of passengers and crew members carrying dangerous goods that they are not permitted to carry on board an aircraft.

6.1.1.2 The mitigating measures required by 6.1.1.1 shall include, at a minimum:

a) measures to ensure that passengers and crew members are aware of the restrictions on the carriage of dangerous goods on aircraft; and

b) measures to ensure that relevant personnel are trained to assist them in identifying and detecting dangerous goods.

Note 1.— See Part 7, Chapter 5, of the Technical Instructions regarding the provision of information to passengers and regarding passenger check-in procedures.

Note 2.— See Part 7, Chapter 6, of the Technical Instructions for provisions to aid recognition of undeclared dangerous goods in general cargo, baggage or mail.

6.1.1.3 The operator shall establish criteria and associated operator procedures for approving a passenger or crew member to safely carry dangerous goods that are identified by Part 8 of the Technical Instructions as being permitted only with the approval of the operator.

6.1.1.4 The operator shall load dangerous goods carried by passengers or crew members in accordance with the applicable requirements of the Technical Instructions.

6.1.1.5 The operator shall ensure that baggage suspected of being contaminated by dangerous goods is isolated and any hazardous contamination is nullified before the baggage is subsequently transported.

6.1.2 Transport of cargo or mail

6.1.2.1 The operator shall ensure that measures are in place to mitigate the risk of:

a) dangerous goods being transported as cargo on an aircraft;

b) dangerous goods being transported that are intended as replacements for, or removed for replacement of, those required to be aboard an aircraft in accordance with pertinent airworthiness requirements and operating regulations; and

c) dangerous goods being transported in mail other than those permitted in mail in accordance with Chapter 8.

6.1.2.2 The mitigations required by 6.1.2.1 shall include, at a minimum:

a) measures to ensure that cargo customers are aware that the operator will not accept dangerous goods for transport as cargo on its aircraft; and

b) measures to assist operators' cargo personnel in identifying, detecting and rejecting dangerous goods presented as general cargo and dangerous goods not permitted in mail.

Note 1.— See Part 7, Chapter 1, of the Technical Instructions regarding cargo acceptance procedures related to detecting dangerous goods presented as general cargo.

Note 2.— See Part 7, Chapter 4, of the Technical Instructions regarding the provision of information at cargo acceptance points.

Note 3.— See Part 7, Chapter 6, of the Technical Instructions regarding provisions to aid recognition of dangerous goods in general cargo, baggage or mail.

6.1.2.3 *Damage or leakage*

The operator shall ensure that cargo or mail suspected of being contaminated by dangerous goods is isolated and any hazardous contamination nullified before the cargo or mail is subsequently transported.

6.1.2.4 *Transport of mail containing dangerous goods*

The operator shall ensure that mail containing dangerous goods as permitted in accordance Chapter 8 is transported in accordance with the applicable provisions of Part 7 of the Technical Instructions.

6.2 Operators with a specific approval for the transport of dangerous goods

Note.— Specific approval in the context of this chapter refers to an approval issued to an air operator by the State of the Operator in accordance with Annex 6.

6.2.1 Dangerous goods carried by passengers and crew members

6.2.1.1 The operator shall ensure that measures are in place to mitigate the risk of passengers and crew members carrying dangerous goods that they are not permitted to carry on board an aircraft.

6.2.1.2 The mitigating measures required by 6.2.1.1 shall include, at a minimum:

a) measures to ensure that passengers and crew members are aware of the restrictions on the carriage of dangerous goods on aircraft; and

b) measures to ensure that relevant personnel are trained to assist them in identifying and detecting dangerous goods.

Note 1.— See Part 7, Chapter 5, of the Technical Instructions regarding the provision of information to passengers and regarding passenger check-in procedures.

Note 2.— See Part 7, Chapter 6, of the Technical Instructions regarding provisions to aid recognition of dangerous goods in general cargo, baggage or mail.

6.2.1.3 The operator shall establish criteria and associated operator procedures for approving a passenger or crew member to safely carry dangerous goods that are identified by Part 8 of the Technical Instructions as being permitted only with the approval of the operator.

6.2.1.4 The operator shall load dangerous goods carried by passengers or crew members in accordance with the applicable requirements of the Technical Instructions.

6.2.1.5 The operator shall ensure that baggage suspected of being contaminated by dangerous goods is isolated and any hazardous contamination is nullified before the baggage is subsequently transported.

6.2.2 Transport of cargo and mail

6.2.2.1 *Prevention of non-compliance*

6.2.2.1.1 The operator shall ensure that measures are in place to mitigate the risk of:

a) dangerous goods being transported as cargo on an aircraft that are not in compliance with the Technical Instructions and the limitations with regard to the transport of dangerous goods established in the operations manual;

b) dangerous goods being transported on aircraft that are intended as replacements for, or removed for replacement of, those required to be aboard an aircraft in accordance with pertinent airworthiness requirements and operating regulations that are not in compliance with the Technical Instructions; and

c) dangerous goods being transported in mail other than those permitted in mail in accordance with Chapter 8.

6.2.2.1.2 The mitigations required by 6.2.2.1.1 shall include, at a minimum:

a) measures to ensure that cargo customers are aware of the limitations on the transport of dangerous goods as cargo by air; and

b) measures to assist operators' cargo personnel in identifying, detecting and rejecting dangerous goods presented as general cargo and dangerous goods not permitted in mail.

Note 1.— See Chapter 2, 2.4, for limitations on the transport of dangerous goods by air.

Note 2.— See Part 7, Chapter 1, of the Technical Instructions regarding cargo acceptance procedures related to detecting dangerous goods presented as general cargo.

Note 3.— See Part 7, Chapter 4, of the Technical Instructions regarding the provision of information at cargo acceptance points.

Note 4.— See Part 7, Chapter 6, of the Technical Instructions regarding provisions to aid recognition of dangerous goods in general cargo, baggage or mail.

~~8.1~~6.2.2.2 *Acceptance of dangerous goods for transport as cargo by air*

6.2.2.2.1 ~~An~~The operator shall not accept dangerous goods for transport as cargo by air:

a) unless ~~the dangerous goods are accompanied by a completed~~ information describing the dangerous goods ~~transport document~~ in the consignment is provided in accordance with Part 7, Chapter 1, of

the Technical Instructions, except where the Technical Instructions indicate that such ~~a document~~ information is not required; and

b) until the package, overpack or freight container containing the dangerous goods has been inspected in accordance with ~~the acceptance procedures contained in~~ Part 7, Chapter 1 of the Technical Instructions.

~~*Note 1.— See Chapter 12 concerning the reporting of dangerous goods accidents and incidents.*~~

~~*Note 2.— Special provisions relating to the acceptance of overpacks are contained in the Technical Instructions.*~~

~~8.2 Acceptance checklist~~

6.2.2.2.2 ~~An~~ The operator shall ~~develop and~~ use an acceptance checklist as an aid to compliance with the provisions of ~~8.1~~ 6.2.2.2.1 in accordance with Part 7, Chapter 1, of the Technical Instructions.

6.2.2.2.3 The operator shall not accept a freight container or unit load device containing dangerous goods from a shipper except as permitted by Part 7, Chapter 1, of the Technical Instructions.

6.2.2.3 *Handling*

6.2.2.3.1 *General*

6.2.2.3.1.1 The operator shall handle cargo containing dangerous goods in a manner that prevents damage, leakage or dangerous reaction in accordance with Part 7 of the Technical Instructions.

6.2.2.3.1.2 The operator shall ensure that marks and labels required by the Technical Instructions are visible throughout the course of air transport in accordance with Part 7, Chapter 2, of the Technical Instructions.

6.2.2.3.1.3 The operator shall ensure that dangerous goods contained in unit load devices are identified on the exterior of the unit load devices in accordance with Part 7, Chapter 2, of the Technical Instructions.

~~8.3~~6.2.2.3.2 *Loading, unloading and stowage*

~~Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be loaded and stowed on an aircraft in accordance with the provisions of the Technical Instructions.~~

~~8.4 Inspection for damage or leakage~~

~~8.4.1 Packages and overpacks containing dangerous goods and freight containers containing radioactive materials shall be inspected for evidence of leakage or damage before loading on an aircraft or into a unit load device. Leaking or damaged packages, overpacks or freight containers shall not be loaded on an aircraft.~~

~~8.4.2 A unit load device shall not be loaded aboard an aircraft unless the device has been inspected and found free from any evidence of leakage from, or damage to, any dangerous goods contained therein.~~

~~8.4.3 Where any package of dangerous goods loaded on an aircraft appears to be damaged or leaking, the operator shall remove such package from the aircraft, or arrange for its removal by an appropriate authority or organization, and thereafter shall ensure that the remainder of the consignment is in a proper condition for transport by air and that no other package has been contaminated.~~

~~8.4.4 Packages or overpacks containing dangerous goods and freight containers containing radioactive materials shall be inspected for signs of damage or leakage upon unloading from the aircraft or unit load device. If evidence of damage or leakage is found, the area where the dangerous goods or unit load device were stowed on the aircraft shall be inspected for damage or contamination.~~

6.2.2.3.2.1 *Damage or leakage*

6.2.2.3.2.1.1 The operator shall not load dangerous goods as cargo onto an aircraft unless:

a) packages, overpacks and freight containers containing dangerous goods have been inspected immediately prior to placing them in a unit load device or loading them on an aircraft and found free from any evidence of leakage or damage; and

b) unit load devices have been inspected and found free from any evidence of leakage from, or damage to, any dangerous goods contained therein.

6.2.2.3.2.1.2 The operator shall inspect upon unloading:

a) packages, overpacks and freight containers containing dangerous goods for evidence of damage or leakage from the aircraft or unit load device; and

b) unit load devices containing dangerous goods from the aircraft for evidence of leakage from, or damage to any dangerous goods contained therein.

6.2.2.3.2.1.3 The operator shall ensure that cargo or mail containing or suspected of containing dangerous goods is removed from the aircraft or unit load device if there is evidence of damage or leakage in accordance with Part 7, Chapters 2 and 3 of the Technical Instructions.

6.2.2.3.2.2 *Removal of contamination*

The operator shall ensure that:

a) any hazardous contamination found on an aircraft or unit load device from dangerous goods is removed without delay in accordance with the Technical Instructions; and

b) an aircraft that has been contaminated by radioactive materials is immediately taken out of service and not returned to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.

~~8.5~~6.2.2.3.2.3 *Loading restrictions ~~in passenger cabin or on flight deck~~*

6.2.2.3.2.3.1 The operator shall ensure that ~~D~~dangerous goods ~~shall~~ are not ~~be~~ carried in an aircraft cabin occupied by passengers or on the flight deck ~~of an aircraft~~, except in circumstances permitted by the provisions of the Technical Instructions.

6.2.2.3.2.3.2 The operator shall ensure that dangerous goods are only loaded in the main deck cargo compartment of an aircraft conducting passenger operations if the compartment meets the requirements of Part7, Chapter 2, of the Technical Instructions.

6.2.2.3.2.3.3 Notwithstanding the provisions in 6.2.2.3.2.3.2, the operator may load dangerous goods in the main deck cargo compartment of an aircraft conducting passenger operations without meeting the requirements of Part 7, Chapter 2, of the Technical Instructions, if approved by the State of Origin and the State of the Operator, based on the results of a specific safety risk assessment implemented by the operator.

6.2.2.3.2.3.4 The process required by 6.2.2.3.2.3.3 shall demonstrate how risks to the operation resulting from such an allowance can be managed.

6.2.2.3.2.3.5 The operator shall ensure that packages of dangerous goods bearing the "Cargo aircraft only" label are not loaded for transport on aircraft conducting passenger operations.

Editorial Note.— The following is moved from 8.9 of the current Annex 18:

~~**8.9 Loading on cargo aircraft**~~

6.2.2.3.2.3.6 The operator shall ensure that ~~P~~packages of dangerous goods bearing the "Cargo aircraft only" label ~~shall be~~ are loaded on an aircraft conducting cargo operations in accordance with ~~the provisions in~~ Part 7, Chapter 2, of the Technical Instructions.

~~**8.6 Removal of contamination**~~

~~8.6.1 Any hazardous contamination found on an aircraft as a result of leakage or damage to dangerous goods shall be removed without delay.~~

~~8.6.2 An aircraft which has been contaminated by radioactive materials shall immediately be taken out of service and not returned to service until the radiation level at any accessible surface and the non-fixed contamination are not more than the values specified in the Technical Instructions.~~

~~8.7~~6.2.2.3.2.4 *Separation and segregation*

~~8.7.1~~6.2.2.3.2.4.1 The operator shall ensure that ~~P~~packages containing dangerous goods which might react dangerously ~~one~~ with one another ~~shall not be stowed on an aircraft next to~~ are segregated or separated from each other ~~or in a position that would allow interaction between them in the event of leakage.~~

~~8.7.2 Packages of toxic and infectious substances shall be stowed on an aircraft~~, as applicable, in accordance with ~~the provisions~~ Part 7, Chapter 2, of the Technical Instructions.

~~8.7.3~~6.2.2.3.2.4.2 The operator shall ensure that ~~P~~packages of radioactive materials ~~shall be~~ are stowed on an aircraft so that they are separated from persons, live animals and undeveloped film, in accordance with ~~the provisions in~~ Part 7, Chapter 2, of the Technical Instructions.

~~**8.8**~~6.2.2.3.2.5 *Securing of dangerous goods cargo loads*

6.2.2.3.2.5.1 ~~When~~ The operator shall protect dangerous goods ~~subject to~~ on the ~~provisions contained herein are loaded in an~~ aircraft~~, the operator shall protect the dangerous goods~~ or in a unit load device from being damaged~~,~~ and ~~shall~~ secure such goods in the aircraft in such a manner that will prevent any movement ~~in flight which would change the orientation of the packages~~.

6.2.2.3.2.5.2 For packages containing radioactive materials, the securing shall be adequate to ensure that the separation requirements of ~~8.7.3~~ 6.2.2.3.2.4.2 are met at all times.

6.2.2.3.3 *Retention of dangerous goods information*

The operator shall retain dangerous goods transport information for access by the appropriate national authority in accordance with Part 7, Chapter 4 of the Technical Instructions.

6.2.2.3.4 *Transport of mail containing dangerous goods*

The operator shall ensure that mail containing dangerous goods as permitted in accordance Chapter 8 is transported in accordance with the applicable provisions of Part 7 of the Technical Instructions.

6.2.4 Additional operator responsibilities for specific types of dangerous goods

6.2.4.1 An operator that accepts radioactive material for transport as cargo by air shall comply with the applicable requirements for radioactive material in Part 1, Chapter 6 of the Technical Instructions.

6.2.4.2 The operator shall comply with handling, stowage, loading and transport requirements for the specific types of dangerous goods identified in Part 7 of the Technical Instructions.

Editorial Note.— The following is moved from 9.1 of the current Annex 18:

~~9.1~~6.2.5 Information to pilot-in-command or remote pilot-in-command

The operator ~~of~~ shall ensure that when an aircraft ~~in which~~ is to transport dangerous goods ~~are to be carried shall provide~~ as cargo, the pilot-in-command or remote pilot-in-command, as applicable, is provided as early as practicable before departure of the aircraft with accurate and legible written or printed information ~~as specified~~ in accordance with Part 7, Chapter 4, of the Technical Instructions.

6.2.6 Additional provisions for helicopters and remotely piloted aircraft

6.2.6.1 The operator may transport dangerous goods on helicopters or remotely piloted aircraft without applying all provisions of the Technical Instructions when full compliance is not appropriate or necessary, due to the type of operation, provided this is approved by the State of the Operator based on the results of a specific safety risk assessment implemented by the operator.

6.2.6.2 The process required by 6.2.6.1 shall demonstrate how risks to the operation resulting from such non-compliance with the Technical Instructions can be managed.

Note 1.— Types of operations where full compliance may not be appropriate or necessary as referred to in 6.2.6.1 are, for example, those involving unstaffed sites, remote locations, mountainous areas and construction sites.

Note 2.— Guidance for States on approving variations from the Technical Instructions to transport dangerous goods on helicopters or remotely piloted aircraft is provided in the Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air *(Doc xxxxx, forthcoming).*

Editorial Note.— Paragraph 6.2.7 is moved from 9.6 of current Annex 18.

~~9.6~~6.2.7 Information in the event of an aircraft accident, serious incident or incident

6.2.7.1 *Information to emergency services*

The operator shall provide, without delay, the information about the dangerous goods on board that was provided to the pilot-in-command or remote pilot-in-command to the emergency services responding to an accident, serious incident or incident.

6.2.7.2 *Information to States*

6.2.7.2.1 *Aircraft accident or serious incident*

~~9.6.1~~ In the event of~~:~~

~~a)~~ an aircraft accident~~;~~ or

~~b) a~~ serious incident where dangerous goods carried as cargo may ~~be~~have been involved,

the operator ~~of the aircraft carrying dangerous goods as cargo~~ shall provide ~~information, without delay, to emergency services responding to the accident or serious incident~~, as soon as possible, the information about the dangerous goods on board~~, as shown on the written information~~ that was provided to the pilot-in-command~~. As soon as possible, the operator shall also provide this information~~ or remote pilot-in-command to the appropriate national authorities of the State of the Operator and the State ~~in which the accident or serious incident occurred~~of Occurrence.

~~9.6.2~~ 6.2.7.2.1 *Aircraft incident*

In the event of an aircraft incident, the operator ~~of an aircraft carrying dangerous goods as cargo~~ shall, if requested to do so, provide ~~information without delay to emergency services responding to the incident and to the appropriate authority of the State in which the incident occurred,~~ , without delay, the information about the dangerous goods on board~~, as shown on the written information to the~~ that was provided to the pilot-in-command or the remote pilot-in-command~~.~~ to the appropriate national authority of the State of Occurrence.

Note.— The terms "accident", "serious incident" and "incident" are as defined in Annex 13.

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CHAPTER 7. AERODROME OPERATOR'S RESPONSIBILITIES

7.1 Provision of information to passengers

Each State shall require aerodrome operators serving commercial air transport operations to promulgate information in such a manner that passengers are warned of the types of dangerous goods that they are forbidden from carrying aboard an aircraft as provided for in Part 7 of the Technical Instructions.

Note.— See Part 7, Chapter 5 of the Technical Instructions regarding the provision of information to passengers by the aerodrome operator.

CHAPTER 8. TRANSPORT OF DANGEROUS GOODS BY POST

8.1 General

8.1.1 Each State shall prohibit dangerous goods in mail for air transport except for those dangerous goods identified in Part 1, Chapter 2, 2.3 of the Technical Instructions, provided they comply with the provisions of that section.

8.1.1.1 Notwithstanding the provisions in Part 1, Chapter 2, 2.3 of the Technical Instructions allowing the introduction of lithium batteries contained in equipment in mail for air transport in compliance with that section, each State shall restrict this allowance to designated postal operators its national authority responsible for the safety oversight of air operators has specifically authorized for that purpose.

8.1.2 Each State shall apply the provisions of this chapter to all its designated postal operators, including those accepting mail in another State.

8.2 Designated postal operators

8.2.1 Each State shall require its designated postal operators to:

a) implement measures to prevent the introduction of dangerous goods in mail in air transport, except for those dangerous goods that are identified in and that comply with Part 1, Chapter 2, 2.3 of the Technical Instructions;

b) establish and maintain a dangerous goods training programme in accordance with Chapter 9; and

c) provide its personnel with procedures, instructions and guidance for controlling the introduction of dangerous goods in mail into air transport and on the action to be taken in the event of an emergency involving dangerous goods.

Editorial Note.— Paragraph 8.2.2. is moved from 11.4 of current Annex 18.

~~**11.4 Dangerous goods by mail**~~

8.2.2 The designated postal operator's procedures ~~of designated postal operators~~, instructions and guidance for controlling the introduction of dangerous goods in mail into air transport shall be approved by the ~~civil aviation authority of the State where the mail is accepted~~ national authority responsible for the safety oversight of air operators of the State's designated postal operator.

Note 1.— ~~*In accordance with the Universal Postal Union (UPU) Convention, dangerous goods are not permitted in mail, except as provided for in the Technical Instructions.*~~ *Provisions requiring State approval of the designated postal operator's training programme are contained in Chapter 9.*

~~*Note 2.— The Universal Postal Union has established procedures to control the introduction of dangerous goods into air transport through the postal services (see the UPU Parcel Post Regulations and Letter Post Regulations).*~~

Note ~~3~~2.— Guidance for approving the procedures established by designated postal operators ~~to~~ for controlling the introduction of dangerous goods in mail into air transport may be found in the ~~Supplement to the Technical Instructions (Part S-1, Chapter 3)~~ Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air *(Doc xxxxx, forthcoming)*.

~~CHAPTER 9. PROVISION OF INFORMATION~~

Editorial Note.— Paragraphs 9.1 to 9.6 of current Annex 18 are moved to Annex 6 or other parts of Annex 18 as follows:

Current Annex 18	Proposed SARPs	
	Annex 6	Annex 18
9.1		6.2.5
9.2	Part I, 14.2 b), 14.3 b); Part III, 12.2 b, 12.3 b), Part IV, 14.2 b), 14.3 b); Part I, Appendix 2, 2.1.36; Part III, Appendix 7, 2.1.28 and Part IV, Appendix 2, 2.1.33	
9.3		2.2.2, 4.4.2, 6.1.1.2, 6.2.1.2 and 7.1
9.4	Same as 9.2	5.3 and 8.2
9.5	Part I, 4.5.6, Part II, 2.2.5.4, Part III, 2.5.6 and Part IV, 4.6.6	
9.6		6.2.7

~~9.1 Information to pilot-in-command~~

~~The operator of an aircraft in which dangerous goods are to be carried shall provide the pilot-in-command as early as practicable before departure of the aircraft with written information as specified in the Technical Instructions.~~

~~9.2 Information and instructions to flight crew members~~

~~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.~~

~~9.3 Information to passengers~~

~~Each Contracting State shall ensure that information is promulgated in such a manner that passengers are warned as to the types of dangerous goods which they are forbidden from transporting aboard an aircraft as provided for in the Technical Instructions.~~

~~9.4 Information to other persons~~

~~Operators, shippers or other organizations involved in the transport of dangerous goods by air shall provide such information to their personnel as will enable them to carry out their 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.~~

~~9.5 Information from pilot-in-command to aerodrome authorities~~

~~If an in-flight emergency occurs, the pilot-in-command shall, as soon as the situation permits, inform the appropriate air traffic services unit, for the information of aerodrome authorities, of any dangerous goods on board the aircraft, as provided for in the Technical Instructions.~~

~~9.6 Information in the event of an aircraft accident or incident~~

~~9.6.1 In the event of:~~

~~a) an aircraft accident; or~~

~~b) a serious incident where dangerous goods carried as cargo may be involved,~~

~~the operator of the aircraft carrying dangerous goods as cargo shall provide information, without delay, to emergency services responding to the accident or serious incident about the dangerous goods on board, as shown on the written information to the pilot-in-command. As soon as possible, the operator shall also provide this information to the appropriate authorities of the State of the Operator and the State in which the accident or serious incident occurred.~~

~~9.6.2 In the event of an aircraft incident, the operator of an aircraft carrying dangerous goods as cargo shall, if requested to do so, provide information without delay to emergency services responding to the incident and to the appropriate authority of the State in which the incident occurred, about the dangerous goods on board, as shown on the written information to the pilot-in-command.~~

~~*Note. — The terms "accident", "serious incident" and "incident" are as defined in Annex 13.*~~

CHAPTER ~~10~~ 9. DANGEROUS GOODS TRAINING PROGRAMMES

~~10.1 Establishment of training programmes~~

~~Initial and recurrent dangerous goods training programmes shall be established and maintained in accordance with the Technical Instructions.~~

Note 1.— Requirements for the establishment of dangerous goods training programmes are contained in Chapter 5 for entities that offer dangerous goods for transport as cargo by air, in Chapter 8 for designated postal operators, and in Annex 6 for operators.

Note 2.— A training programme includes elements such as design methodology, assessment, initial and recurrent training, instructor qualifications and competencies, training records and evaluation of the effectiveness of the training.

9.1 Competency of personnel

9.1.1 Each State shall require any person performing functions aimed at ensuring that dangerous goods are transported in accordance with the Technical Instructions to be competent to perform the functions for which that person is responsible prior to performing them, through training and assessment commensurate with those functions.

9.1.2 Each State shall require the competency of persons identified in 9.1.1 to be maintained.

Note.— An approach to ensuring that personnel are competent to perform any function for which they are responsible is provided in the Guidance on a Competency-based Approach to Dangerous Goods Training and Assessment *(Doc 10147).*

9.2 Recurrent training and assessment

Each State shall require that training programmes include initial and recurrent dangerous goods training and assessment in accordance with Part 1, Chapter 4 of the Technical Instructions.

9.3 Training and assessment records

Each State shall require records of training and assessment to be maintained and retained in accordance with Part 1, Chapter 4 of the Technical Instructions.

9.4 Effectiveness of dangerous goods training programme

Each State shall require the effectiveness of the dangerous goods training programme to be maintained.

~~10.2~~9.5 Approval of training programmes

~~10.2.1~~9.5.1 ~~Dangerous goods training programmes for operators~~ The appropriate national authority of the State of the Operator shall ~~be~~ approve~~d by the appropriate authority of the State of the Operator~~ the operator's dangerous goods training programme.

~~*Note. — Dangerous goods training programmes are required for all operators regardless of whether or not they are approved to transport dangerous goods.*~~

~~10.2.2~~9.5.2 The State's national authority responsible for the safety oversight of air operators shall approve the ~~D~~dangerous goods training programmes ~~for~~ of its State's designated postal operators ~~shall be approved by the civil aviation authority of the State where the mail is accepted by the designated postal operator~~.

~~10.2.3~~9.5.3 **Recommendation.—** *Dangerous goods training programmes required for entities other than operators and designated postal operators should be approved as determined by the appropriate national authority in accordance with its safety risk management activities.*

~~*Note 1. — See 11.4 for dangerous goods by mail.*~~

~~*Note 2. — See 4.2.2 of Annex 6 — Operation of Aircraft, Part I — International Commercial Air Transport — Aeroplanes for surveillance of operations by a foreign operator.*~~

CHAPTER 11. COMPLIANCE

11.1 Inspection systems

Each Contracting State shall establish inspection, surveillance and enforcement procedures for all entities performing any function prescribed in its regulations for air transport of dangerous goods with a view to achieving compliance with those regulations.

Note 1.— It is envisaged that these procedures would include provisions for:

inspecting dangerous goods consignments prepared, offered, accepted or transported by the entities referred to in 11.1;

inspecting the practices of the entities referred to in 11.1; and

investigating alleged violations (see 11.3).

Note 2.— Guidance on dangerous goods inspections and enforcement may be found in the Supplement to the Technical Instructions (Part S-5, Chapter 1 and Part S-7, Chapters 5 and 6).

11.2 Cooperation between States

Recommendation. *Each Contracting State should participate in cooperative efforts with other States concerning violations of dangerous goods regulations, with the aim of eliminating such violations. Cooperative efforts could include coordination of investigations and enforcement actions; exchanging information on a regulated party's compliance history; joint inspections and other technical liaisons, exchange of technical staff, and joint meetings and conferences. Appropriate information that could be exchanged include safety alerts, bulletins or dangerous goods advisories; proposed and completed regulatory actions; incident reports; documentary and other evidence developed in the investigation of incidents; proposed and final enforcement actions; and educational/outreach materials suitable for public dissemination.*

11.3 Penalties

11.3.1 Each Contracting State shall take such measures as it may deem appropriate to achieve compliance with its dangerous goods regulations including the prescription of appropriate penalties for violations.

11.3.2 **Recommendation.** *Each Contracting State should take appropriate action to achieve compliance with its dangerous goods regulations, including the prescription of appropriate penalties for violations, when information about a violation is received from another Contracting State, such as when a consignment of dangerous goods is found not to comply with the requirements of the Technical Instructions on arrival in a Contracting State and that State reports the matter to the State of Origin.*

~~11.4 Dangerous goods by mail~~

~~The procedures of designated postal operators for controlling the introduction of dangerous goods in mail into air transport shall be approved by the civil aviation authority of the State where the mail is accepted.~~

~~*Note 1.— In accordance with the Universal Postal Union (UPU) Convention, dangerous goods are not permitted in mail, except as provided for in the Technical Instructions.*~~

~~*Note 2.— The Universal Postal Union has established procedures to control the introduction of dangerous goods into air transport through the postal services (see the UPU Parcel Post Regulations and Letter Post Regulations).*~~

~~*Note 3.— Guidance for approving the procedures established by designated postal operators to control the introduction of dangerous goods into air transport may be found in the Supplement to the Technical Instructions (Part S-1, Chapter 3).*~~

CHAPTER ~~12~~ 10. DANGEROUS GOODS ~~ACCIDENT AND INCIDENT REPORTING~~ SAFETY INTELLIGENCE

~~12.1 With the aim of preventing the recurrence of dangerous goods accidents and incidents, each Contracting State shall establish procedures for investigating and compiling information concerning such accidents and incidents which occur in its territory and which involve the transport of dangerous goods originating in or destined for another State. Reports on such accidents and incidents shall be made in accordance with the detailed provisions of the Technical Instructions.~~

~~12.2 **Recommendation.** *With the aim of preventing the recurrence of dangerous goods accidents and incidents, each Contracting State should establish procedures for investigating and compiling information concerning such accidents and incidents which occur in its territory other than those described in 12.1. Reports on such accidents and incidents should be made in accordance with the detailed provisions of the Technical Instructions.*~~

~~12.3 With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo, each Contracting State shall establish procedures for investigating and compiling information concerning such occurrences which occur in its territory and which involve the transport of dangerous goods originating in or destined for another State. Reports on such instances shall be made in accordance with the detailed provisions of the Technical Instructions.~~

~~12.4 **Recommendation.** *With the aim of preventing the recurrence of instances of undeclared or misdeclared dangerous goods in cargo, each Contracting State should establish procedures for investigating and compiling information concerning such occurrences which occur in its territory other than those described in 12.3. Reports on such instances should be made in accordance with the detailed provisions of the Technical Instructions.*~~

Note.— Provisions relative to safety intelligence, as part of the State safety programme (SSP), are included in Annex 19 – Safety Management *and, to this effect, are applicable to this Annex. This chapter contains* Standards and Recommended Practices *addressing specific safety intelligence development responsibilities relevant to the safe transport of dangerous goods by air. Guidance on the development of dangerous goods safety intelligence is contained in the* Manual on Oversight and Management of the Safe Transport of Dangerous Goods by Air *(Doc xxxx, forthcoming).*

10.1 Mandatory dangerous goods safety reporting

10.1.1 States shall require the operator to report:

a) dangerous goods accidents to the appropriate national authority of the State in which they occurred and to the State of the Operator;

b) dangerous goods incidents to the appropriate national authority of the State in which they occurred and to the State of the Operator;

c) undeclared dangerous goods discovered in cargo to the appropriate national authority of the State in which they were discovered and the State of the Operator;

d) dangerous goods discovered in mail that are not permitted to be sent by post for air transport to the appropriate national authority of the State in which they were discovered and the State of the Operator;

e) misdeclared dangerous goods discovered in cargo, other than those discovered during the acceptance check required by Chapter 6, to the appropriate national authority of the State in which they were discovered and the State of the Operator;

f) misdeclared dangerous goods discovered in cargo during the acceptance check required by Chapter 6, which, if left undetected, would cause the potential to endanger an aircraft, its occupants or any other person, to the appropriate national authority of the State in which they were discovered and the State of the Operator; and

g) dangerous goods discovered in baggage or on the person that are not permitted to be carried by passengers or crew members, to the appropriate national authority of the State [of Origin, the State where they were discovered and the State of the Operator].

Note 1.— Section 10.1.1 g) includes occasions when the operator discovers dangerous goods not permitted to be carried by passengers or crew and when the operator is advised that they were discovered by another entity.

Note 2.— Dangerous goods permitted to be carried by passengers and crew members are included in Part 8 of the Technical Instructions.

10.1.2 States shall require its designated postal operators to report to its national authority responsible for the safety oversight of air operators and, if different, to the national authority responsible for the safety oversight of air operators of the State where the mail was accepted:

a) dangerous goods accidents;

b) dangerous goods incidents; and

c) dangerous goods discovered in mail that are not permitted to be sent by post for air transport.

10.1.3 **Recommendation.—** *States should require entities other than operators and designated postal operators to report dangerous goods accidents and dangerous goods incidents to the appropriate national authority of the State in which they occurred.*

10.1.4 **Recommendation.—** *States should require entities other than operators to report occasions when undeclared or misdeclared dangerous goods are discovered to the appropriate national authority of the State in which they were discovered.*

10.1.5 States shall ensure that dangerous goods safety data and dangerous goods safety information collected through mandatory dangerous goods safety reporting are incorporated into the safety data collection and processing system (SDCPS) required by Annex 19.

10.2 Voluntary dangerous goods safety reporting

States should ensure that dangerous goods safety data and dangerous goods safety information not captured through mandatory dangerous goods safety reporting are reported through the voluntary safety reporting system established in Annex 19, Chapter 5.

10.3 Safety information sharing and exchange

10.3.1 If a State, in the analysis of the dangerous goods information contained in its SDCPS, identifies safety issues that may pose an unacceptable risk to the global aviation safety system, that State shall forward such safety information to ICAO with a minimum of delay.

10.3.2 States shall provide ICAO with dangerous goods information from their SDCPS upon request to address global safety issues related to the transport of dangerous goods by air.

CHAPTER ~~13~~ 11. DANGEROUS GOODS SECURITY PROVISIONS

Each ~~Contracting~~ State shall establish dangerous goods security measures, applicable to ~~shippers, operators and other individuals~~ entities engaged in the transport of dangerous goods by air~~, to be taken~~ to minimize theft or misuse of dangerous goods that may endanger persons, property or the environment. ~~*These measures should be commensurate with security provisions specified in other Annexes and the Technical Instructions.*~~

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APPENDIX C

GENERAL DESCRIPTION OF AMENDMENTS TO THE TECHNICAL INSTRUCTIONS THAT MAY BE NECESSARY AS A CONSEQUENCE TO THE AMENDMENT TO ANNEX 18

Note.— This is a general list and may not be exhaustive.

Chapter	**Consequential amendment to Technical Instructions**	**New responsibilities?**
1: Definitions	Addition of definitions for: 1. Undeclared dangerous goods 2. Misdeclared dangerous goods 3. Safety management system (SMS) 4. State of Occurrence Modification of definitions for: 1. Appropriate national authority 2. Cargo 3. Dangerous goods accident 4. Dangerous goods incident	No
2: General	— Align applicability in 1;1.1.1 with Annex 18 — Align language for exceptions for dangerous goods of the operator in 1;2.2 — Turn Note 1 under 1;2.1 into an Instruction to align with Annex 18, 2.3.3.2 — Replace “Restrictions” with “Limitations” in Table 8-1	No
3. Provision of information to ICAO	Remove operator variations	No
4. State safety risk management	None	— No, unless clarification of responsibilities results in a State becoming aware of responsibilities it did not know it had. — The need for States to manage safety risks arising from dangerous goods is expected through Annex 19, but it is explicitly

Chapter	Consequential amendment to Technical Instructions	New responsibilities?
		required by the new SARPs. This may also result in new responsibilities for States that were previously unaware of their responsibility to do so.
5. Offering dangerous goods for transport as cargo by air	None	No, unless clarification of responsibilities results in a State becoming aware of responsibilities it did not know it had.
6. Operator's responsibilities	— Add risk-based requirements for mitigating risk of passengers and crew members carrying dangerous goods not permitted on board the aircraft — Add requirement for operator to establish criteria for approving passengers and crew to carry dangerous goods (likely to be done through work on mobility aids) — Add risk-based requirements for mitigating risk of non-compliance with Technical Instructions with respect to dangerous goods in cargo or mail — Add general handling requirement — Add risk-based process for loading dangerous goods in a main deck cargo compartment of a passenger aircraft not meeting the certification requirements of a Class A or B air cargo compartment — Align language for helicopter provisions with Annex 18 and add new requirement for a specific safety risk assessment to permit variations to the Technical Instructions for the carriage of dangerous goods on a helicopter — Align language for provision of information in the event of an accident with Annex 18	— Expectations of the operator are more visible to the State, which may lead to more robust oversight — Risk-based requirements and establishment of criteria for approving passengers to carry dangerous goods when such an approval is required are added responsibilities for the operator
7. Aerodrome operator's responsibilities	— Replace references to airport with aerodrome	No.
8. Transport of dangerous goods by post	— Add explicit responsibilities of the DPO — Add reporting requirements — Add requirement for DPO accepting mail in another State to comply with the same responsibilities	No, unless clarification of responsibilities results in a State becoming aware of

Chapter	**Consequential amendment to Technical Instructions**	**New responsibilities?**
	— Align wording for the approval of the DPOs procedures with Annex 18 language	responsibilities it did not know it had.
9. Dangerous goods training programmes	— Add language for who needs to establish a dangerous goods training programme from Chapters 5, 8 and Annex 6	No
10. Dangerous goods safety intelligence	— Add exception for reporting of misdeclared dangerous goods — Add reporting requirements — Consider adding provisions for voluntary dangerous goods safety reporting — Remove reporting requirements for other occurrences of the operator (NOTOC not provided, dangerous goods not segregated)	— New requirement for States to report to ICAO if safety issues that may impact the global aviation safety system are identified through dangerous goods safety intelligence — New requirement for designated postal operators to report
11. Dangerous goods security	None	No
Annex 6	None?	
General	— Consistent use of "appropriate national authority" — Ensure approval provisions are consistent in terms of who is the subject (should be "the operator may … if approved by …" rather than "The State may approve …" and risk management	No, unless clarification of responsibilities results in a State becoming aware of responsibilities it did not know it had with respect to risk management.

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APPENDIX D

PROPOSED AMENDMENTS TO THE TECHNICAL INSTRUCTIONS TO ADDRESS ANC REQUEST FOR CLARITY AND CONSISTENCY

Part 1

GENERAL

. . .

2.2 EXCEPTIONS FOR DANGEROUS GOODS OF THE OPERATOR

2.2.3 ~~Unless otherwise authorized by the State of the Operator, a~~Articles and substances intended as replacements for those referred to in 2.2.1 a), or articles and substances referred to in 2.2.1 a) which have been removed for replacement, must be transported in accordance with the provisions of these Instructions.~~, except that when consigned by operators, they may be carried in~~

2.2.3.1 Notwithstanding the provisions in 2.2.3:

a) the operator may, with the approval of the State of the Operator, based on the results of a specific safety risk assessment which demonstrates how an equivalent level of safety will be maintained, transport such articles and substances without all the normal requirements of these Instructions being fulfilled; and

b) the operator may transport such articles and substances in containers specially designed for their transport, provided:

1) the articles or substances are consigned by the operators; and

2) ~~such~~ the containers are capable of meeting at least the requirements for the packagings specified in these Instructions for the items packed in the containers.

2.2.4 Unless otherwise authorized by the State of the Operator, articles and substances intended as replacements for those referred to in 2.2.1 b), c) and d) must be transported in accordance with the provisions of these Instructions.

2.2.5 Unless otherwise authorized by the State of the Operator, battery-powered devices with installed batteries and spare batteries intended as replacements for those referred to in 2.2.1 e) must be transported in accordance with the provisions of these Instructions.

. . .

2.3 TRANSPORT OF DANGEROUS GOODS BY POST

2.3.1 In accordance with the Universal Postal Union (UPU) Convention, dangerous goods as defined in these Instructions, with the exception of those listed ~~below~~ in 2.3.5, are not permitted in mail. ~~Appropriate national authorities should ensure that the provisions are complied with in relation to the transport of dangerous goods by air.~~

2.3.2 Each designated postal operator must:

a) implement measures to prevent the introduction of dangerous goods in mail that are not permitted for air transport;

b) implement measures to ensure that dangerous goods in mail that are permitted for air transport in accordance with the provisions of 2.3.5 comply with that section;

c) establish and maintain a dangerous goods training programme in accordance with Part 1;4;

d) report to its national authority responsible for the safety oversight of air operators and, if different, to the national authority responsible for the safety oversight of air operators of the State where the mail was accepted:

1) dangerous goods accidents;

2) dangerous goods incidents; and

3) dangerous goods discovered in mail that are not permitted to be sent by post for air transport;

e) provide its personnel with procedures, instructions and guidance for controlling the introduction of dangerous goods in mail into air transport and on the action to be taken in the event of an emergency involving dangerous goods.

2.3.3 Each designated postal operator's procedures, instructions and guidance for controlling the introduction of dangerous goods in mail into air transport must be approved by its State's national authority responsible for the safety oversight of air operators.

Note.— Provisions requiring State approval of each designated postal operator's training programme are contained in Part 1;4.

2.3.~~2~~5 The following dangerous goods may be acceptable in mail for air ~~carriage~~ transport subject to the provisions of the appropriate national authorities concerned and these Instructions:

a) patient specimens as defined in 2;6.3.1.4 provided that they are classified, packed and marked as required by 2;6.3.2.3.8 a), b), c) and d);

b) infectious substances assigned to category B (UN 3373) only, when packed in accordance with the requirements of Packing Instruction 650, and solid carbon dioxide (dry ice) when used as a refrigerant for UN 3373. Where dry ice is used as a refrigerant for UN 3373, all applicable requirements of Packing Instruction 954 must be met. Mail containing dry ice as a refrigerant for UN 3373 must be offered separately to the operator by the designated postal operator so that the operator can comply with all applicable requirements of Part 7;

c) radioactive material in an excepted package, UN Nos. 2910 and 2911 only, the activity of which does not exceed one-tenth of that listed in Part 2, Chapter 7, Table 2-14, and that does not meet the definitions and criteria of classes, other than Class 7, or divisions, as defined in Part 2. The package must be marked with the name of the shipper and the consignee, the package must be marked "radioactive material – quantities permitted for movement by post" and must bear the radioactive material, excepted package label (Figure 5-33);

d) provided an authorization allowing their acceptance in mail for air transport is granted to the designated postal operator by its State's national authority responsible for the safety oversight of air operators:

1) lithium ion batteries contained in equipment (UN 3481) meeting the provisions of Section II of Packing Instruction 967~~.~~, provided there are ~~N~~no more than four cells or two batteries ~~may be~~ are mailed in any single package; and

~~e~~2) lithium metal batteries contained in equipment (UN 3091) meeting the provisions of Section II of Packing Instruction 970~~.~~, provided there are ~~N~~no more than four cells or two batteries ~~may be~~ are mailed in any single package.

~~2.3.3 The procedures of designated postal operators (DPOs) for controlling the introduction of dangerous goods in mail into air transport are subject to review and approval by the Civil Aviation Authority of the State where the mail is accepted.~~

~~2.3.4 The DPO must have received specific approval from the Civil Aviation Authority before the DPO can introduce the acceptance of lithium batteries as identified in 2.3.2 d) and e).~~

~~*Note 1.— Designated postal operators may accept the dangerous goods identified in 2.3.2 a), b) and c) without receiving specific approval from the Civil Aviation Authority.*~~

~~*Note 2.— Guidelines for appropriate national authorities and civil aviation authorities are contained in the Supplement to these Instructions (S-1;3).*~~

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APPENDIX E

IMPACT ASSESSMENT

New SARPs/PANS Proposal
IMPACT ASSESSMENT AND IMPLEMENTATION PLAN

PART 1: IMPACT ASSESSMENT

1.1 What is the problem/opportunity that this proposal is designed to address?

Please include reference to Jobcard / ASBU / work programme item, as applicable

Annex 18 — *The Safe Transport of Dangerous Goods by Air* does not clearly outline States' responsibilities with respect to the safe transport of dangerous goods by air or its relationship with other Annexes that impact dangerous goods. It has remained largely unchanged since its adoption in 1984, despite the significant growth in the quantity and types of dangerous goods being transported and the increased complexity of the supply chain. The safe transport of dangerous goods by air has historically relied on trust that shippers and operators comply with the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284, Technical Instructions). The increased complexity of the supply chain, in which there may be several other entities involved with dangerous goods transport beyond shippers and operators, make relying on trust inadequate for managing safety. Managing the risks may also require involvement of various government agencies beyond civil aviation authorities. Risk-based, proactive Standards and Recommended Practices (SARPs) and supporting guidance material are needed to ensure the management of safety risks associated with dangerous goods transport are integrated within the State safety programme.

Dangerous goods provisions are also contained in Annex 6 — *Operation of Aircraft*, but there are inconsistencies and both gaps and duplication of SARPs between the two Annexes. The proposed amendments to Annex 6 and 18 aim to ensure that States can maintain effective oversight systems and proactively manage evolving safety risks associated with dangerous goods that may be introduced at any point throughout the cargo transport supply chain.

The amendments addresses REC-A-DGS-2025: Maintenance of Annex 18 SARPs and other supporting provisions and work programme elements on ANC Job Cards DGP.002 and DGP.005, which supersedes DGP.002.

1.2 What is the overall impact of this proposal on the strategic objectives of ICAO, namely:

	Positive / Negative / Negligible/None	Rationale: *Please provide an explanation for your choice and highlight any caveats or limitations in the selection*
Safety	Positive	The proposed amendment clarifies States' responsibilities with respect to the safe transport of dangerous goods. It is aimed at strengthening the effectiveness of a State's oversight and safety risk management activities. It is expected to create a more robust and safe global air transport system.
Security	Negligible/None	The amendment is not intended to impact security. However, while not required, States may choose to make use of security screening resources to comply with high-level SARPs aimed at preventing dangerous goods not permitted on aircraft from being loaded on an aircraft. States need to conduct a proper impact assessment to ensure these measures do not negatively impact security. Alternatively, leveraging security controls to identify safety risks could help address potential security threats arising from dangerous goods that could be misused to commit acts of unlawful interference.

Environment	Positive	Some dangerous goods are hazardous to the environment if not shipped safely. Safety is depending on compliance with the Technical Instructions. The amendment aims to ensure compliance with the Technical Instructions throughout the supply chain, thus reducing the dangerous goods incident rate. It may therefore have a positive impact on the environment.
Efficiency	Negligible/None	The amendment does not impact efficiency.

Note: In the following questions 'States' applies to the adoption and oversight of new SARPs. 'Industry' applies to the service provision and use, whether State owned or not (e.g. ANSPs, airlines aerodromes, meteorology, general aviation, etc). With respect to financial costs for States, it refers to the cost to develop, implement, maintain, and consider oversight issues associated with the proposed change. For Industry, it refers to the cost of implementing the change, where compliance is required by the State, which may translate in costs for equipage, human resources, training, documentation, aircraft modifications or upgrades, operations and airworthiness for example.

1.3 What is the overall impact on resources (financial, personnel, etc) of this proposal for:

	Increase/decrease/negligible/ unknown	Rationale: *Please provide an explanation for your choice and highlight any caveats or limitations in the selection*
States	Increase in overall cost	The amendment is not intended to add new requirements, therefore there should be a negligible impact on States who already have effective oversight systems and are proactively managing risk. There will likely be an increase in overall cost for those that are not proactively managing risk, particularly of the supply chain.
Industry	Increase in overall cost	The amendment is not intended to add new requirements, therefore there should be a negligible impact for industry in States that already have effective oversight systems in place and are proactively managing risk There will likely be an increase in cost for industry within States who do not have systems in place if the State determines it needs to demand more from industry.

1.4 In your opinion, do the benefits of this proposal justify the cost of implementing the proposal from the perspective of:

	Answer	Rationale: *Please provide an explanation for your choice and highlight any caveats or limitations in the selection*
States	Yes	The significant growth in the quantity and types of dangerous goods being transported, together with the increased complexity of the supply chain, have introduced new risks that were not present when Annex 18 was first adopted. The proposed amendment aims to ensure that States understand their responsibilities with respect to proactively managing safety risks associated with dangerous goods within its State safety programme.
Industry	Yes	The amendments to Annex 18 are expected to improve the effectiveness of States in managing safety risks associated with the transport of dangerous goods and should result in improved compliance with the Technical Instructions throughout the supply chain, including by entities involved with offering dangerous goods for transport to the operator. These activities will support the operator in the management of safety risks as required by Annex 6.

PART 2: IMPLEMENTATION PLAN

To assist ICAO and States to ensure this proposal will be effectively implemented please answer the following questions.

Note: The ANC recognizes that panel experts may feel limited in their ability to answer some or all of these questions, however, encourages the panels to provide their views. If still unsure, it is acceptable to leave one or more blank. The answers presented to the ICAO Council with the proposed amendment will be further developed by ICAO.

2.1 What supporting documentation is required for this proposed amendment?

Please include reference to any documents that require initial release/amendment e.g. ICAO Document or Circular name and number, industry specification, etc

- To be developed over the next biennium:
  - Consequential amendments to Doc 9284
  - Amendments to Doc 9284SU
  - New guidance document to support implementation of Annex 18

2.2 What other guidance, training and support activities do you recommend ICAO undertake to ensure the effective implementation of this proposed amendment?

Please include reference to any existing support/promotional programmes and whether it is required globally or regionally e.g. regional seminars, ikits, etc

- Updates to ICAO training courses
- iPack
- Safety outreach globally and regionally
- Collaboration with international organizations and other entities for additional support initiatives

2.3 What are the essential steps to be followed by a State in order to implement this proposed amendment?

Please include the major steps e.g. amendment of national legislation, change of oversight procedures, training of oversight personnel, required competencies, etc.

- Analysis of existing regulations to identify amendments required
- Draft and promulgate updated dangerous goods regulations
- Establish timelines with milestones for achieving implementation of changes
- Update to processes and procedures
- Provide training to applicable technical personnel
- Campaign to create awareness of changes

2.4 What is the timeframe needed to implement this proposal by:

	Answer	Rationale: *For the State, the timeframe is the length of time needed to implement in the national regulatory framework* *For industry, the timeframe is the length of time needed for industry to start implementing in their operations*
States	2 - 5 Years	Amending legislation/regulations and implementation.
Industry	Not applicable	The amendment may have an impact on industry, but it is directed to States.

PART 3: AUDIT PLAN

Note: This section will be completed by ICAO prior to the presentation of any proposed changes to SARPs or PANS. The Panel Secretary will coordinate with the relevant experts in ICAO.

3.1 Does this proposal require an amendment of the USOAP CMA protocol questions to assess effective implementation by States?

Please include reference to existing PQs that may need amendment or description of any new PQs that may be required. State 'Not applicable' if no impact A thorough review of all USOAP CMA protocol questions related to dangerous goods will be needed.

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APPENDIX F

EVALUATION OF THE HIGH-LEVEL CONSEQUENCES RELATED TO THE PROPOSED AMENDMENT

1. At the twelfth meeting of its 229th Session, the Air Navigation Commission agreed to provide States and industry stakeholders with an evaluation of the high-level consequences related to the scope of the proposed amendments. This evaluation addresses the five categories listed below and is provided for information purposes only.

	Description	**Rationale** *(in 3 lines or less)*
Safety	Positive impact	The amendment improves global aviation safety by clarifying States' dangerous goods oversight and safety management responsibilities.
Efficiency	None	The amendment does not impact efficiency.
Security	New risk-based SARPs for managing safety risks related to non-compliance across the supply chain could have a positive or a negative impact depending on how they are implemented.	Positive: Safety measures may uncover security threats. Negative: Possible if security resources are leveraged to manage safety without considering impact. A proper impact assessment is necessary to prevent a negative impact.
Environment	Positive impact	Improved compliance with the Technical Instructions reduces risk of an incident involving environmentally hazardous material.
Expected implementation time	2 - 5 years	Time for amending legislation/regulations and implementation support.

— END —