



WORKING PAPER

DANGEROUS GOODS PANEL (DGP)

TWENTY-SECOND MEETING

Montréal, 5 to 16 October 2009

Agenda Item 2: Development of recommendations for amendments to the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284) for incorporation in the 2011-2012 Edition

Agenda Item 5: Resolution, where possible, of the non-recurrent work items identified by the Air Navigation Commission or the panel:

5.5: Carriage of dangerous goods on helicopters

THE CARRIAGE OF DANGEROUS GOODS BY HELICOPTERS

(Presented by G. A. Leach)

SUMMARY

This paper summarizes the work carried out so far in reviewing the areas of Annex 18 — *The Safe Transport of Dangerous Goods by Air*, the *Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284), the *Supplement to the Technical Instructions for the Safe Transport of Dangerous Goods by Air* (Doc 9284su) and the *Emergency Response Guidance for Aircraft Incidents involving Dangerous Goods* (Doc 9481) that would need amendment in order to include reference to the carriage of dangerous goods by helicopters.

Action by the DGP: The DGP is invited to

- a) consider the proposed subject areas of helicopter operations shown in the appendix and confirm whether they should be progressed with a view to including specific information within the various documents indicated. In particular, confirmation is sought regarding the suggestions in 3 and 4 of the appendix;
- b) consider the suggested parts/chapters of the various documents requiring amendment shown within the appendix and confirm whether they are appropriate; and
- c) advise whether any other areas of helicopter operations need to be addressed within the Technical Instructions or other documents.

1. INTRODUCTION

1.1 The DGP Working Groups of the Whole in the Hauge and Auckland (DGP-WG08, 3 to 7 November 2008 and DGP-WG09, 4 to 8 May 2009) raised the subject of the lack of specific provisions for the carriage of dangerous goods by helicopters within Annex 18, the Technical Instructions, the Supplement and the Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods (DGP/22-WP/2, paragraph 3.2.8 and DGP/22-WP/3, paragraph 3.5.1.19 refer).

1.2 In the time since DGP-WG09, there has not been sufficient time in order to produce all of the detailed amendments that would be needed to all of the applicable documents and so rather than only propose incomplete amendments in this working paper, it was decided to use the opportunity to indicate the progress so far, to seek confirmation from the DGP that continued work on the subject is appropriate, propose some principles that will be followed in producing future proposed amendments, indicate areas that are suggested to be in need of amendment, and to seek confirmation as to whether there are any other areas that need to be considered.

1.3 Some thought has been given to where the provisions for helicopters should be placed. There are several possible alternatives, from including all of them within the text of the Technical Instructions, to including them all as a separate part within the Supplement, or a combination of both. It is suggested that the most practical solution would be to place any text that applies to routine helicopter operations (such as underslinging and other loading requirements) within the relevant parts of the Technical Instructions and to place any text that is considered to relate to specialized operations that may require specific approval or exemption by the States concerned (such as carriage of specialized packagings and operations to normally unmanned installations) in the Supplement.

1.4 Using the information presented to DGP-WG09 as a basis (DGP-WG/09-WP/62 refers), the appendix to this working paper indicates the areas of helicopter operations that it is felt should be subject to specific text and proposes the action that could be taken. It also indicates the areas of Annex 18, the Technical Instructions, the Supplement and the *Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods* where amendments are required.

APPENDIX

1. Carriage Of Dangerous Goods In Underslung Loads

Proposed Action	Document(s) Requiring Amendment
Reference is required to confirm that loading aboard an aircraft includes underslinging beneath a helicopter.	Add text to Introductory Note to Part 7 of the Technical Instructions or add note to Part 7;2.1: 'For the avoidance of doubt any reference in the Technical Instructions to the taking on board, loading onto or carriage of dangerous goods in or on an aircraft shall be interpreted as applying also to the placing, suspending or carriage of such goods beneath an aircraft unless the context makes it otherwise apparent'
Text is needed to require packages that are underslung to be protected from damage by weather/precipitation	Add text to Part 7;2.4.3 of the Technical Instructions.
Text is needed to advise that consideration needs to be given to the discharge of static electricity when carrying underslung dangerous goods, particularly flammable liquids, gases and explosives	Add text to Part 7;2 of the Technical Instructions.
Since underslung loads trail at an angle when the helicopter is in flight, consideration needs to be given to separation distances when loading radioactive material and magnetised material.	Add text to Part 7;2.9.6 of the Technical Instructions for radioactive material and 7;2.10 for magnetised material.
Compared with a fixed-wing aircraft, in the event of an in-flight emergency, it is more likely that a helicopter will make an emergency landing away from an airfield. Therefore, specific information is required concerning information to be provided by the pilot-in-command in case of an in-flight emergency. In addition, consideration needs to be given to the information to be provided in the event of an in-flight intentional or unintentional release of an underslung load.	Add text to Part 7;4.3 of the Technical Instructions.

2. Carriage Of 'Cargo Aircraft Only' Dangerous Goods In Underslung Loads

Proposed Action	Document(s) Requiring Amendment
Text required to except underslung cargo aircraft only dangerous goods from the requirement to be accessible in the event of an emergency.	Add dangerous goods underslung beneath a helicopter to Part 7;2.4.1.2 of the Technical Instructions. Amend Chapter 8.9 of Annex 18 Amend Section 1.5 of the ERG (Doc 9481)

3. Carriage Of Passengers With Underslung Cargo Aircraft Only Dangerous Goods

Proposed Action	Document(s) Requiring Amendment
<p>Since it is possible to jettison underslung loads, should passengers be permitted to be carried on helicopters carrying underslung cargo aircraft only dangerous goods? If so, should this be with the approval of the State of the Operator, State of Origin or both, or should it only be by means of an exemption by the States concerned?</p> <p><i>Note, there is no suggestion that passengers should be permitted when cargo aircraft only dangerous goods are being carried elsewhere in a helicopter.</i></p>	<p>If permitted without approval or exemption, amend Part 7;2.1.1 of the Technical Instructions.</p> <p>If permitted only with approval of State(s), amend Part 7;2.1.1 of the Technical Instructions.</p> <p>If permitted only by exemption by States, guidance to be added to Supplement.</p>

4. Hold Classification And Carriage Of Passengers

Proposed Action	Document(s) Requiring Amendment
<p>When passengers are carried, should there be any restrictions on the types of dangerous goods permitted in:</p> <ul style="list-style-type: none"> a) underfloor compartments b) tail/boom compartments c) external baggage bins <p>If there should be restrictions, should they be with the approval of the States concerned in accordance with S-7;2.2 of the Supplement?</p>	<p>Additional clarification of hold classifications required to Section 1.2 of the ERG (Doc 9481)</p> <p>If no restrictions, amend Part 7;2.1.1 of the Technical Instructions.</p> <p>If approval required, amend S-7;2.2 of the Supplement to refer to helicopters.</p>

5. Emergency Response Guidance

Proposed Action	Document(s) Requiring Amendment
<p>Consider specific incident checklists for helicopter operations</p> <p>Include information on jettisoning underslung loads</p>	<p>Amend Emergency Response Guidance for Aircraft Incidents Involving Dangerous Goods</p>

6. Air Portable Fuel Containers

Proposed Action	Document(s) Requiring Amendment
<p>DGP-WG/09-WP/62 discussed the background to this subject. It is suggested that carriage of such items should be by means of exemptions from the States concerned. Guidance to States could be included in the Supplement.</p>	<p>Include guidance to States in Part S-4;12.</p>

7. Intermediate Bulk Containers

Proposed Action	Document(s) Requiring Amendment
<p>DGP-WG/09-WP/62 discussed the background to this subject. It is suggested that carriage of such items should be by means of exemptions from the States concerned. Guidance to States could be included in the Supplement.</p>	<p>Include guidance to States in Part S-4;12.</p>

8. Normally Unmanned Installations (NUI) And Remote Areas

Proposed Action	Document(s) Requiring Amendment
<p>Some helicopter operations involve carrying dangerous goods to an unmanned site such as a Normally Unmanned Installation in the oil and gas industry, or in remote locations such as mountainous areas. This often involves either returning with some or all of the dangerous goods or flying them on to another location. It is impractical for a new dangerous goods transport document to be produced and for a full acceptance check to be carried out prior to the onward flight. It may also be impractical for a new NOTOC to be produced. It is suggested that this could be permitted with the approval of the State(s) concerned.</p> <p>In some operations, the pilot may be the only person at a particular location, such as when collecting dangerous goods from one remote location and delivering it to another. The pilot may be responsible for carrying out the acceptance check on the packaging and loading the helicopter. It is questioned whether the full provisions that apply to NOTOCs is relevant in these circumstances.</p>	<p>Include a new Chapter within Part S-7 of the Supplement specific to such operations.</p>

9. Ground Personnel With Multiple Responsibilities

Proposed Action	Document(s) Requiring Amendment
<p>Within both the offshore oil and gas industry, it is common for one person to carry out more than one function. For example, one person may act as both the shipper (by packing the dangerous goods and raising the dangerous goods transport document) and the operator (by carrying out the dangerous goods acceptance check). Whilst this is not ideal, there are occasions when this is necessary, however it should be made clear that the practice should be avoided where possible and personnel concerned must receive training in both functions.</p>	<p>Include text or a note in Part 1;4 of the Technical Instructions regarding training.</p>