

## **Part 12 Discussion Paper # 3: Transportation to Remote Locations**

### **Issue:**

The paper aims to examine Part 12 of the *Transportation of Dangerous Goods Regulations* (TDGR) and outline how it can be revised to best reflect the unique circumstances and requirements of Northern and remote Canadian communities and locations that fall under Section 12.9 Limited Access and related sections.

### **Background:**

Transportation is a key enabler of economic development, and is central to the continued growth of many communities across Canada. The transport of dangerous goods to remote communities is considered important for a wide range of economic and social activity: wildlife conservation and control, police activities, exploration and development, construction and building in addition to civilian use of fuel, medical equipment and supplies. Additionally, transportation networks in remote areas are largely used for transporting goods for export such as minerals, energy, agriculture, and forestry products.

On a per-flight basis, carriers that service limited access locations are likely to carry far more dangerous goods than their counterparts operating elsewhere in Canada because air remains the only means of year-round access for the shipment, trade and consumption of commercial, industrial and residential goods<sup>1</sup>. In many of these locations, re-supply and access is done primarily via air, which means certain essential economic and consumer goods continue to be regulated under Part 12 of the TDGR.

Part 12 of the TDGR outlines responsibilities and duties surrounding the transportation of dangerous goods by air. Under Section 12.9, provisions outlining special circumstances of limited access are included for areas reliant on air transportation and where no other practical means of transport is available (i.e., no year-round road or marine access). A number of challenges have been identified with the 'limited access' provisions. The large number of equivalency certificate applications received by Transport Canada (TC) over the past several years for air transport to and from remote locations indicate that the existing provisions within 12.9 may be insufficient and require review. TC Inspectors have also signaled that there remains confusion surrounding the application of 12.9 (when and who the provision applies to). Because of these concerns, the provisions under Section 12.9 and related sections within Part 12 have been identified by TC for review to evaluate where they are sufficiently flexible and

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<sup>1</sup> [Review of the Canadian Transportation Safety Regime: Transportation of Dangerous Goods and Safety Management Systems.](#) Parliamentary Report of the Standing Committee on Transport, Infrastructure and Communities, March 2015

clear for Canada's remote locations, while still maintaining the safe transport of dangerous goods by air.

**Proposals related to the use of air transport to remote regions of Canada:**

*1. Scope and definition of 'limited access' in Section 12.9*

When transporting dangerous goods by air to remote locations, it may not be feasible to follow the International Civil Aviation Organization (ICAO) Technical Instructions (TI) for the Transportation of Dangerous Goods, therefore 12.9 provides alternative regulatory requirements that can be followed. For safety reasons, however, it is important that the authorizations such as those contained in section 12.9 are only used in cases where access through other modes of transport is not feasible, and under a limited set of circumstances. Limited access provisions can currently be used when dangerous goods are "transported to or from a location where access is limited and there is no other practical or readily available means of transport to transport the dangerous goods", and requirements for aircraft type (705 aircraft are excluded<sup>2</sup>) are met. Although the existing scope of limited access could be understood to refer to a location whose modes of transportation are limited to air access for at least part of the year, this general description adds ambiguity in section 12.9.

Part 12.9 is currently not clear on whether 'limited access' includes circumstances where goods may initially begin their transit through a regular airport, making several stops which end in a remote location. While large commercial aircrafts carrying passengers are not intended to use the authorizations in section 12.9, the existing definition is sufficiently ambiguous to allow questions of whether a dangerous good could be shipped from Vancouver to Montreal to Northern Quebec under this section. It remains unclear whether the transport for Vancouver to Montreal qualifies for section 12.9 when neither location is remote, even though the final destination meets the limited access criteria.

This lack of clarity may lead to confusion associated with transporting dangerous goods under the provisions of 12.9. At the same time, it is important not to excessively restrict air operators' ability to use the authorizations in 12.9, as this could impact domestic trade and much needed access to goods for remote communities. It may, for example, be overly restrictive to exclude '705' aircraft from using the limited access authorizations, as is currently the case in 12.9(1)(c)(i). TC will also be mindful of proposed changes to other sub-sections in the TDGR and how any additional changes to section 12 could impact the application of 12.9. For example, any proposed amendments to 12.12 on aerial work will be taken into account when reviewing

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<sup>2</sup> 705 aircrafts refer to large airline operators authorized to operate an aircraft that has a takeoff weight of more than 19,000 pounds or for which a Canadian certificate has been issued authorizing the transport of 20 or more passengers; or a helicopter that has a seating configuration of 20 passengers or more. See Subpart 5 of Part 7 of [the Canadian Aviation Regulations](#).

the definition of limited access to ensure that stakeholders engaged in aerial work are able to transport their dangerous goods to the location where the aerial work is initiated.

Transport Canada therefore proposes to review the scope and definition of “limited access” (Section 12.9(1)(c)).

## *2. Incorporating Equivalency Certificates and Reducing the Need for Future Equivalency Certificates*

Shifting economic patterns and an increased focus on natural resource development in remote and northern regions mean that Part 12 has not always been sufficiently current to meet new and changing transportation needs. To address this problem, TC has issued equivalency certificates to the Responsible Person to exempt their activity from the Regulations, provided an equivalent safety outcome can be demonstrated.

Many equivalency certificates have been issued under Part 12. The need for special authorization to transport dangerous goods prompted the creation of Part 12.9, which incorporated a number of equivalency certificates into regulatory text. The issuance of equivalency certificates may inadvertently increase the administrative burden for the Government of Canada (who is responsible for managing the certificates), aviation businesses (who must apply for and retain copies of the certificates in case of inspection) and the communities themselves.

Transport Canada proposes to adopt many of these equivalency certificates into Part 12.9 through amendments. For example, bear spray and bear bangers<sup>3</sup> are good candidates for addition to the dangerous goods that can be transported under the provisions of Section 12.9. TC would also like to look at packaging requirements for wet batteries under 12.9, to address the equivalency certificates currently in place to allow for alternative packaging instructions. Annex A contains a chart illustrating areas of activity for which the most equivalency certificates have been issued since 2013, and a table of activities subject to equivalency certificates that are being considered for incorporation into Section 12.9.

One purpose of potential amendments to Part 12 is to reduce the need for equivalency certificates in the future. Activities that are similar in nature and are equally safe should, to the extent possible, be equally permitted and have the same or analogous requirements under the TDGR. However, as currently written, Part 12.9 is very specific, for example, listing specific UN

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<sup>3</sup> Bear bangers make a loud gunshot style noise. They are intended to scare bears away without harming them.

numbers for Class 3 flammable liquids and Class 2 gases. Additionally, some of the 12.9 means of containment (MOC) provisions are out-of-date and no longer in alignment with Part 5 (the section on MOCs) of the TDGR. To address this, Transport Canada is considering allowing certain classes of dangerous goods, such as Class 3 Flammable Liquids, to be transported under updated requirements of Section 12.9. Transport Canada will examine alignment with Part 5 of the Regulations concerning approved MOCs, rather than re-listing specific means of containment and standards, which require frequent updating and would be repetitive of the requirements listed in Part 5.

### *3. Clarifying provisions for fuel pumps and survival kits*

Certain other provisions for the need to transport dangerous goods to remote areas require clarification. Portable fuel pumps are needed by remote operators, but can represent a danger if appropriate containers are not used. Transport Canada will consider developing authorizations and requirements for the transportation of these fuel pumps under Section 12.9. Questions have arisen about the circumstances under which survival kits are permitted to be transported to air; Transport Canada is proposing to clarify what these circumstances are.

### *4. Other Sections with linkages to 12.9 (Limited Access): 12.4 and 12.8*

Sections of Part 12 other than 12.9 (limited access) also have linkages with the need for dangerous goods in remote areas. Those related to industrial, medical and scientific needs are addressed in another paper, but two sections are highlighted here: Section 12.4 on Class 1.4S explosives, such as cartridges used in hunting, and Section 12.8 on Packing Instruction Y963.

Subsection 12.4(1) contains specific authorizations for transportation by air of certain Class 1.4S explosives. However, the ICAO TI already permit the transportation of Class 1.4S explosives; the difference in the authorizations relate to requirements for packaging, safety marks, and shipping documents, among others. To align more closely with the ICAO TI, Transport Canada will consider removing subsection 12.4(1). Those offering for transport these dangerous goods will need to follow all provisions of the ICAO TI including requirements for labelling, marking, packaging and shipping documents.

Authorizations for consumer commodities that meet one of the following criteria are included in Section 12.8:

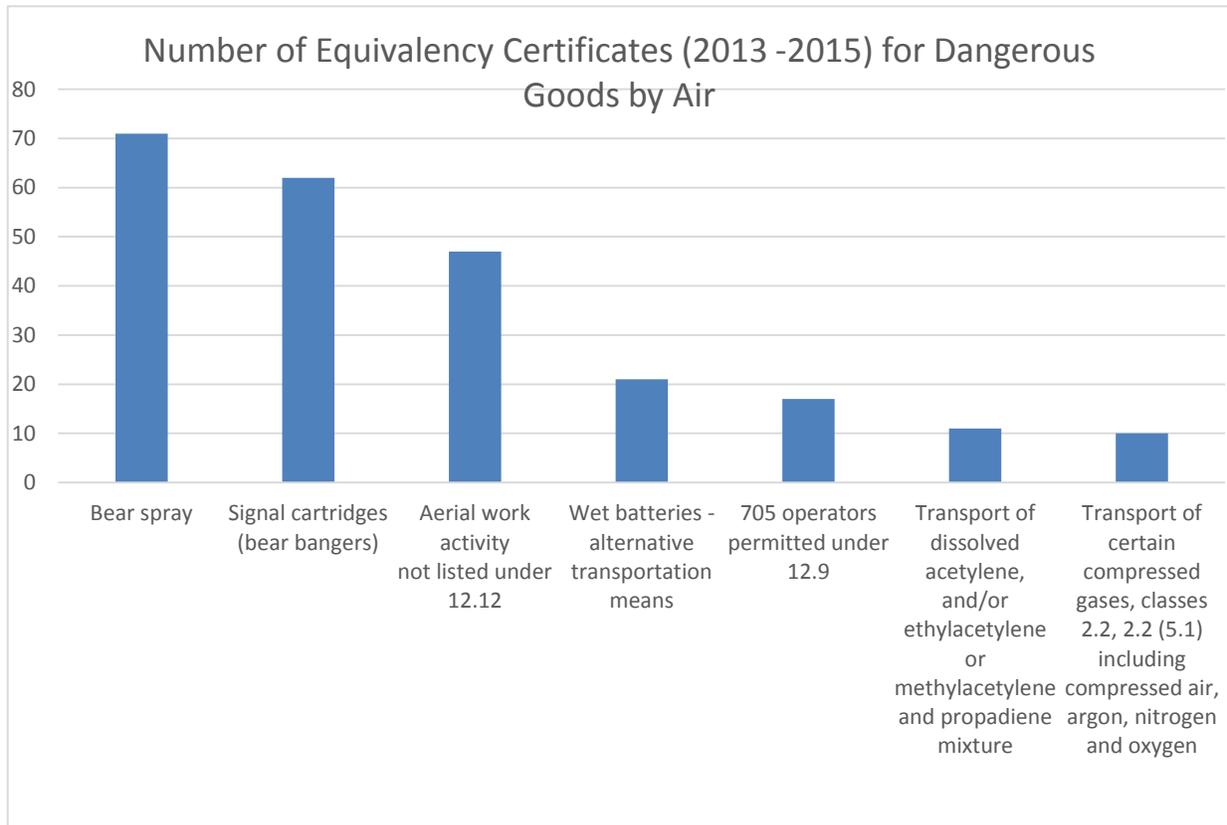
- It is an aerosol in Class 2.1 or 2.2;
- It is a UN3175 solids containing flammable liquid, N.O.S.;
- It is a Class 3, Packing Group II or III; or,

- It is a Class 6.1, Packing Group III.

These provisions allow for the transportation of greater quantities of the applicable goods than would be allowed by the ICAO TI, and allow for alternative markings. Transport Canada is considering reviewing the labeling and quantity authorizations under this section, and will consider whether these authorizations should be exclusively permitted in “limited access” situations, rather than generally for domestic transport.

## Annex A.

- i. Chart illustrating number of equivalency certificates issues for certain activities involving the transportation of dangerous goods by air (multi-modal equivalency certificates excluded), between 2013 – 2015.



ii) Activities for which equivalency certificates are proposed to be integrated into Section 12.9 of the TDGR.

- Transportation by air of bear spray
- Transportation by air of bear bangers
- Alternative packaging for wet batteries when transported by air
- Permission for operators of 705 aircraft to follow the authorizations of 12.9
- Transport of dissolved acetylene, ethylacetylene or methylacetylene and propadiene mixtures
- Transport of certain compressed gases in classes 2.2, 2.2 (5.1), including compressed air, argon, nitrogen and oxygen