

**For discussion  
on 25 January 2021**

**Legislative Council Panel on Economic Development**

**Proposed Legislative Amendments Relating to  
the Carriage of Dangerous Goods by Air**

**PURPOSE**

This Paper seeks Members' views on the proposed legislative amendments to implement the latest standards promulgated by the International Civil Aviation Organization ("ICAO") for the safe transport of dangerous goods ("DG") by air in Hong Kong.

**BACKGROUND**

*International Standards*

2. According to the Technical Instructions for the Safe Transport of Dangerous Goods by Air ("TIs") issued by ICAO, DG in the context of air transport include explosives, compressed gas, flammable liquids, flammable solids, oxidizing substances, toxic substances, infectious substances, radioactive materials, corrosives, etc. To ensure aviation safety, ICAO has developed a set of provisions governing the transport of DG by air under Annex 18 to the Convention on International Civil Aviation ("Chicago Convention"). These provisions regulate matters such as the classification, packing, marking, labelling and loading of DG on board aircraft, and other matters such as training requirements for related aviation personnel. The detailed specifications are set out in the TIs which are updated and published by ICAO biennially. Annex 18 to the Chicago Convention stipulates that the Contracting States shall take necessary action to comply with the provisions in the TIs.

*Local Legislation*

3. ICAO is a specialised agency of the United Nations established under the Chicago Convention in 1944. At present, it has 193 Contracting States and China is one of them. China recognises the international rights

and obligations arising from the Chicago Convention and its associated regulations, and these rights and obligations are also applicable to Hong Kong. For the requirements of the TIs, they are given legal effect through two pieces of local subsidiary legislation, viz -

- (a) Dangerous Goods (Consignment by Air) (Safety) Regulations (“DG(CAS)R”) (Cap. 384A); and
- (b) The Air Navigation (Dangerous Goods) Regulations (“AN(DG)R”) (Schedule 16 to the Air Navigation (Hong Kong) Order 1995 (Cap. 448C)).

4. DG(CAS)R regulate shippers and freight forwarders in respect of the proper handling of DG before offering them for air transport, whereas AN(DG)R regulate aircraft and airport operators in relation to the transport of DG.

5. Whenever an updated edition of the TIs is published by ICAO, the Civil Aviation Department (“CAD”) will review the new requirements promulgated therein, and pursue necessary amendments to the above two pieces of subsidiary legislation in order to keep Hong Kong’s regulatory regime in line with the ICAO requirements. On the last occasion, the TIs were issued in November 2018, and the amended subsidiary legislation came into effect from January 2020 to reflect the latest requirements at the time.

## **THE LATEST EDITION OF TIs**

6. The latest edition of the TIs (i.e. the 2021-2022 edition) was issued by ICAO in October 2020. Major changes that require legislative amendments are summarised in paragraphs 7 to 9 below.

### (a) Provision of DG training

7. The DG training requirements for employees of aircraft operators, shippers and freight forwarders have been revised from the current categorisation approach to a competency-based approach, which shall become mandatory from 1 January 2023. Under the current categorisation approach, personnel handling DG are classified into 12

categories<sup>1</sup>, and each category of personnel is required to undergo a standard package of DG training approved by CAD. With the new competency-based approach, those personnel will be required to receive DG training in accordance with their assigned responsibilities. According to ICAO, the goal of competency-based training is to produce a competent workforce by providing focused training. Consequently, aircraft operators, shippers and freight forwarders shall review and update their DG training programmes, and ensure that their employees are provided with CAD-approved competency-based training which are commensurate with their assigned responsibilities starting from 1 January 2023. As a transitional arrangement, the current categorisation approach as specified in Chapter 4 of Part 1 of the 2019-2020 edition of the TIs may continue to be used until 31 December 2022.

8. To facilitate the industry to comply with the competency-based approach training requirements, during the first half of 2021, CAD will provide the industry (including the air cargo industry representative bodies and the organisations providing DG training) with an overview of the new training requirements. Taking into account the feedback or views gathered, making reference to the practices of major aviation authorities, and considering local circumstances, CAD plans to produce model DG training and assessment templates for compliance by the aircraft operators, shippers and freight forwarders closer to the effective date of the new training requirements. The model DG training and assessment templates aim to facilitate the industry in meeting the new training requirements while minimising their additional administrative work. In addition, CAD has conducted a preliminary analysis, and concluded that the core training contents under the new competency-based approach would largely resemble those in the DG training programmes currently approved by CAD. As such, substantial change to the currently adopted training arrangement will not be required.

(b) Other amendments

9. The latest edition of the TIs has also incorporated some changes to the technical requirements on the classification, packing, marking and

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<sup>1</sup> The 12 categories include (i) shippers and persons undertaking the responsibilities of shippers, (ii) packers, (iii) to (v) staff of freight forwarders involved in processing dangerous goods, processing cargo or mail (other than dangerous goods) and handling, storage and loading of cargo or mail, (vi) to (viii) operator's staff accepting dangerous goods, accepting cargo or mail (other than dangerous goods), and involved in handling, storage and loading of cargo or mail and baggage, (ix) passenger handling staff, (x) flight crew members, loadmasters, load planners, flight operations officers and flight dispatchers, (xi) cabin crew members, and (xii) security screeners and their supervisors.

labelling of certain kinds of DGs for carriage by air. For instance, a revision to the size of lithium battery marking has been made, additional guidelines have been provided to facilitate shippers and freight forwarders to conduct an assessment on whether a lithium battery is damaged or defective prior to offering it for air transport, and a new provision allowing packaging of DG to bear more than one mark of tested packaging design type has been added. By updating the definition of TIs (i.e. replacing the reference to “2019-2020 edition” with “2021-2022 edition”) in the DG(CAS)R and AN(DG)R, these technical changes will become legal requirements for the industry to follow in transporting DG by air.

## **AMENDMENTS TO LOCAL LEGISLATION**

10. To give legal effect to the latest requirements of the TIs in the local context, DG(CAS)R and AN(DG)R would need to be amended. The legislative amendments are targeted to take effect immediately upon completion of the legislative process by the third quarter of 2021.

## **CONSULTATION**

11. In the meantime, the international air transport industry is already operating in accordance with the latest requirements of the TIs in handling the transport of DG by air. The International Air Transport Association (“IATA”) has updated its Dangerous Goods Regulations (“DGR”) with effect from 1 January 2021 to promulgate the latest amendments to the TIs. The IATA DGR is the globally recognised reference for transporting DG by air. It is an established industry practice that in handling DG, aircraft and airport operators, shippers and freight forwarders will adhere to the IATA DGR. Airlines would not accept non-compliant DG for air carriage due to safety consideration of aircraft operations.

12. Locally, CAD has already published ICAO’s amendments on its website, written to stakeholders to provide details of the amendments, and briefed the air cargo industry accordingly. The stakeholders have been following the new TIs which have already been incorporated into the IATA DGR since 1 January 2021. The legislative amendment proposal detailed above is to formalise and localise the requirements of the TIs.

## **ADVICE SOUGHT**

13. Members are invited to support the proposed legislative amendments to implement the latest edition of the TIs.

**Transport and Housing Bureau  
Civil Aviation Department  
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