



DANGEROUS GOODS PANEL (DGP)

TWENTIETH MEETING

Montréal, 24 October to 4 November 2005

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

5.1: Principles governing the transport of dangerous goods on cargo only aircraft

THE PRINCIPLES GOVERNING THE TRANSPORT OF DANGEROUS GOODS ON CARGO ONLY AIRCRAFT

(Presented by the Secretary)

Secretarial Note.— The following is based on DGP/19-IP/15

1. BACKGROUND

1.1 When considering changes to existing regulations and requirements, the principle of starting from a “zero base”, or “clean sheet” is often applied. As most DGP members were not involved in the formulation of the current requirements, it was believed approaching the examination of the principles governing the transport of dangerous goods on cargo only aircraft in such a manner would not initially be appropriate. Before recommending changes, if any, to the existing requirements, it was believed there should be an understanding of why the existing provisions were implemented.

1.2 Copies of early editions of the IATA DGR and ICAO TIs, and available copies of relevant Panel working papers, were obtained and read.

1.3 Major aircraft manufacturers were contacted, the TI requirements explained and information on the considerations of those requirements the manufacturers took into account in their processes was sought.

1.4 The issues have been discussed with a wide variety of industry and regulatory personnel.

2. RESULTS

2.1 Documents

2.1.1 Early editions of the IATA DGR referred to accessibility requirements for certain CAO items in a non-mandatory manner, with advice that some States had legislated for accessibility requirements.

2.1.2 The earliest edition of the TIs made accessibility for those items a mandatory requirement.

2.2 Papers

2.2.1 Early ICAO DGP working papers clearly indicate a belief that, regardless of their classification as Class B or E, all main-deck cargo compartments “are in fact accessible in flight”, and that, therefore, accessibility requirements in various regulations “can be complied with”. (DGP/8-WP/54, 29/12/83)

2.2.2 Discussion papers from the period indicate the requirement for “accessibility” was developed, in part, to address concerns about the loading of DG in enclosed freight containers (ULDs). The accessibility was to enable a three-level inspection requirement for items of DG loaded in freight containers i.e. an inspection on loading the goods in the container, an inspection prior to loading the container on the aircraft (as a lengthy interval may have elapsed since initial loading in the container) and a requirement for the flight crew to satisfy themselves that the cargo in the container was secured and not leaking.

2.2.3 It is clear, at least in the papers seen so far, that the requirements were only addressed towards large aircraft such as B707s and B747s.

2.3 Manufacturers

2.3.1 The reply received from a major aircraft manufacture in response to my query on this subject was: “xxx non-normal checklists and procedures for our 2-crew airplanes do not require either pilot to leave his seat, even on the freighters”. The reply goes on to say, “ In summary our certification process itself requires that procedures and checklists be designed for low workload and pilots remaining in their seats.”

2.3.2 It could be drawn from this that the manufacturer would not, therefore (and rightly, in the absence of certification requirements), have considered a need to provide access, or for the development of associated procedures, checklists and equipment

2.4 Discussions

2.4.1 While some States have developed legislation independent of the TIs to deal with some of the issues, most have not. Many appear to have the same type of questions regarding applicability of the requirements in the TIs.

2.5 **To be resolved**

2.5.1 Guidance is needed on many questions relating to interpretation, as follows:

- a) Is restriction meant to apply to all cargo aircraft, regardless of size, or only to those where certification requirements dictate a “Class” of cargo compartment?
- b) Should restriction only apply to aircraft where certification requirements dictate the cargo compartment be of a Class requiring access provisions?
- c) Is restriction meant to apply to two-crew aircraft such as the Westwind, where the pilots cannot leave their seats?
- d) Should restriction apply to single pilot ops?
- e) Should restriction apply where the items are CAO purely because of their quantity, rather than being ‘forbidden’ for carriage on passenger aircraft in Columns 9 and 10 of the DG list?
- f) Is there a need to review requirements as they relate to Class B compartments i.e. they have accessibility for crew?
- g) Have the needs of crews who might have to use the access provisions required by the TIs been adequately addressed in associated ICAO documents?
- h) With the development of larger and larger aircraft, with multiple decks, the issue of having CAO DG quickly accessible to the crew inflight can make it more difficult for ground emergency responders to access that same cargo. What needs to be considered in this regard?

2.6 In regard to TI requirements, there is clearly a “disconnect” between what the TIs currently indicate in relation to in flight accessibility – that is that most CAO must be accessible to the crew - and the certification parameters, with their associated operational requirements, for modern aircraft. If there is a requirement for a crewmember to leave his seat and enter the cargo compartment, it would appear logical there should be associated requirements for the manufacturer/operators to develop appropriate procedures and provide for associated equipment e.g. checklists, communication equipment, oxygen needs, protective equipment, adequate training in actions required etc.

3. **PROPOSAL**

3.1 It is proposed that the cargo aircraft working group meet to discuss the issues and to resolve those items identified in paragraph 2.5.

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