

Public Authority for Civil Aviation

# CIRCULAR FOR THE TRANSPORT OF CARGO IN PASSENGER AIRCRAFT



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<b>DRAFTED BY :</b>		Ramzi Smirani			
<b>REVIEWED BY:</b>		Nasser Handan Al Kindy: Director of FSD 			
<b>APPROVED BY:</b>		Mubarak Saleh Al Ghelani: DG for DGCAR			

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## 1. Purpose of the Circular:

The purpose of this document is to provide requirements for Air operators to consider when applying for an exemptions under CAR-10 allowing for the Transport of Cargo in Passenger Compartments, during the current COVID-19 outbreak.

Air cargo services are vital for the economy and for fighting COVID-19, Air cargo should therefore be able to continuously deliver critical products such as food, medical supplies and personal protective equipment (PPE), and other products which are vital for the functioning of sensitive supply chains. Following this, more operators are required to fly cargo using passenger configured aircraft. The purpose of this document is to provide guidelines to air operators for transporting cargo in a cabin certified to carry only passengers.

For airworthiness aspects regarding transport of cargo on seats in the passenger compartment, this document provides the air operator with technical information and related aspects for the applying of an exemption when no approved design change exists or related technical investigations are on-going.

PACA has an application form to be filled out to justify the need for a flexibility exemption under CAR-10.

## 2. References of Civil Aviation Regulations affected by the scope of the exemption:

- a) CAR OPS-1
  - 1.630 Instrument and Equipment - General;
  - CAR OPS-1.270 - Stowage of baggage and cargo;
- b) CAR-21.045 Duration and continued validity (of the airworthiness certificate) Subpart B, C, and D;
- c) CAR M;
- d) CAN 3-35.

## 3. Applicability

This guideline is applicable to Air operator requesting an exemption to the Airworthiness requirements for transporting Cargo in cabin and on passengers' seat.

## 4. Restrictions

The exemption shall allow, on a temporary basis and as applicable or necessary, the transport of cargo in the passenger cabin including on installed seats, with adequate restraint systems/means.

Exemptions to the requirements to use/install only approved equipment and aircraft configurations shall be limited to cases when no approved design data are available.

Apply only for a limited number of aircraft but not down to a specific tail number. Air operators are not allowed to apply for all the whole fleet

This shall ONLY be used if you intend to carry freight/cargo on installed seats in the cabin.

Exemption is valid for a limited time, initially for three (3) months with a maximum allowable period of no more than eight (8) months.

## 5. Options of getting airborne

- a) Keeping seats installed and NO changes to cabin or aircraft configuration.
  - Perform risk analysis
  - Apply to PACA for an Exemption and follow those requirements
- b) Removing seats and intent is to carry **medical supplies ONLY**
  - Perform risk analysis
  - You will need support from an approved DOA on securing cargo and managing the aircraft configuration. (EASA has given EASA DOAs permission to classify change as a minor change).
- c) Removing seats and intent is to carry **all kinds of cargo**.
  - A Supplement Type Certificate is needed and must be prepared by an approved DOA.

## 6. Requirements applicable to Transport cargo in cabin and on passenger's seat

Air operators shall comply to the following, taking in consideration the type of cargo and the type of aircraft:

### 6.1. Aircraft Configuration Requirements:

- a) The mass of the cargo shall not exceed the structural loading limits of the floor or seats, as published in the aircraft documentation (e.g. Limitation chapter of the Weight and Balance Manual).

**Note : Ensure the weights do not exceed linear and area loads.**
- b) The cargo items shall be stowed only in a location that is capable of restraining it.
- c) The cargo stowage location shall be such that, in the event of an emergency evacuation, it will not hinder aisle access and egress.
- d) The aisles shall remain free of cargo to enable access to the seats and the goods in case of smoke or fire
- e) There must be a clear separation of areas occupied by occupants and those fitted with cargo during taxi, take-off and landing. At least one empty seat row between cargo and reserved occupant seats must be established: one empty seat row between occupant seats or the front row.
- f) All smoke and fire detectors shall be maintained as per Maintenance Manual instructions.



- g) The vertical center of gravity (CoG) of the cargo must be equal to or lower than the passenger CoG of the seat, provided by the seat supplier.
- h) The cargo on seats shall be adequately restrained and the restraints must be attached to the existing seat belt or to the seat itself. The restraint shall address in particular upward, forward and sideward load cases. Seat backrest are typically not designed to hold emergency landing forward loads induced by cargo.

## 6.2. Operational Requirements

- a) Exact cargo weight and position in the cabin and in the cargo hold shall be reflected in the mass and balance documentation (load sheet).
- b) The Pilot in Command (PIC) shall be informed of the content of all the cargo using Notice to Captain (NOTOC).
- c) The operator shall load the aircraft considering the different levels of available fire protections of the loading areas.
- d) For the bulkheads that have a placard indicating maximum capacity, the cargo items stowed in these bulkheads shall not exceed the maximum capacity indicated in the placard.
- e) The maximum capacity limitations in the required safety placards (on or adjacent to the cargo approved stowage locations) shall not be exceeded. All stowage instructions specified in the placards apply.
- f) The cargo placed in enclosed stowage areas shall not be of such size that they prevent latched doors from being closed securely.
- g) The cargo shall be checked to ensure proper stowage in the following instances (at the minimum):
  - (1) Before take-off ;
  - (2) Before landing ;
  - (3) Under orders of the Pilot in Command (PIC).
- h) The cargo shall not be placed where it can impede access to emergency equipment.
- i) Any smoke/ fire within the cabin must be easily detected and extinguished using the existing emergency equipment. Thoroughly briefed crew/supernumeraries shall be on-board to survey and access all areas of the cabin during all flight phases.

**Note : Two (2) cabin crew are required as a minimum for narrow body aircraft and three (3) as a minimum for Wide body aircraft.**
- j) There must be an adequate number of trained crew/supernumeraries acting as fire-fighter (not part of the flight crew) with sufficient amount of firefighting equipment: Air operator may increase the number of firefighting equipment depend on the type of cargo, quantity, load factor. This equipment may be stowed in the cabin using existing stowage provisions (overhead bins, stowage's) provided that the location is identifiable for the crew.
- k) Occupants shall be placed on existing cabin crew seats. Otherwise, occupants must not share seat rows with cargo.
- l) Under seat stowage' is allowed only if the seat is equipped with a restraint bar system and the cargo items can be placed fully underneath the seat. The loading of the cargo under each seat shall not exceed 9 kg (20 lbs).

- m) The cargo packaging shall be able to equalize the pressure so that it can handle the Delta Pressure (DP) during the flight, as applicable.
- n) The Air Conditioning system shall be set taking into account the nature of the cargo transported in the cabin and the number and distribution of cabin occupants.
- o) The load shall be evenly distributed across the seat row. The loading on each seat shall not exceed 77 kg (170 lbs) in the case of cargo transportation.
- p) Operations without passengers shall still require one or more crew members to survey and access all areas of the cabin during all phases of flight. Any fire that might occur must be discovered and extinguished immediately utilizing existing emergency equipment.
- q) Extra crew must be seated on seats which are not located near the cargo (i.e. first rows).
- r) Operators shall publish temporary revisions to the OM or a standard operation procedure covering all the aspects of the exemptions and shall be submitted to PACA for approval to include the new type of operations and the related procedures.
- s) Operators shall coordinate and communicate the **TRANSPORTATION OF CARGO IN THE PASSENGER CABIN** procedure to the Ground Handler in advance to allow all the staff the full compliance with the mentioned procedure.

### 6.3. Transport of Dangerous Good

- a) Dangerous Goods (DG) shall only be transported by Operators approved by PACA
- b) The Pilot in Command (PIC) shall be informed of the content of all the cargo using a Notice to Captain (NOTOC).
- c) In the absence of passengers, the limits for the dangerous goods can be those established in the Technical Instructions for Cargo Aircraft, instead of Passenger Aircraft. The operator shall nevertheless include this aspect in the risk assessment performed.
- d) Additional training/briefing shall be given to the crew, to be able to identify whether the limits have been increased from those applicable to passengers to those applicable to cargo. This shall, at least, include the following:
  - (1) The risks and consequences of increasing the amount of DG in the hold;
  - (2) Any changes in the emergency procedures and the emergency equipment that may be on board.
- e) Relevant information on dangerous goods (e.g. affecting emergency procedures) shall be included in the briefing given to other people occupying the aircraft.
- f) Dangerous goods shall not be carried in the passenger cabin and always be carried in the hold and shall be transported under the conditions established by the Technical Instructions.
- g) Nobody other than the following may be present on board :
  - (1) a crew member,
  - (2) an operator's employee in an official capacity,
  - (3) an authorised representative of the authority or
  - (4) an authorised person accompanying a consignment or other cargo.
- h) Any other person will be considered a passenger and, therefore, the aircraft will no longer be able to use the provisions applicable to cargo aircraft as regards the transport of dangerous good.

#### **6.4. Airworthiness aspects for transport of cargo in the passenger cabin**

##### **6.4.1 Transport of medical supplies under a design change approval**

- a) In the context of the emergency situation created by the Covid-19 pandemic, Approved Design Organizations may reclassify such modification as “Minor Change” and approve such modifications, under their DOA-privileges, allowing for the use of cabin seats when related to the transportation of medical supplies (e.g. masks, gloves, clothing, etc.) provided they are not classified as dangerous goods. This has to be indicated in the approval documents and AFM Supplement.
- b) Since this kind of installation is a change in the scope of operation of the aeroplane, and in the absence of dedicated operational requirements covering this kind of operation, the installation and the procedures for operation have to be addressed taking into account the specific configuration of each aeroplane model affected.
- c) Further requirement can be found in the operational aspects of this circular and shall be taken into account.

##### **6.4.2 Transport of other cargo under a design change approval**

- a) For transport of cargo other than medical supplies as well as in case removal of seats are necessary to allow fixation of cargo onto the aircraft structure for cargo operation, a Major Change or STC application is required and will be processed by an approved DOA under PACA requirements.

### **7. Notification**

For the purpose of notification of exemptions, PACA is invited to inform ICAO and may be EASA of the granted exemptions.

### **8. Conclusion**

The air operator shall inform the Firefighting services and airport local authority about the type of operation and cargo on board.

This circular could be updated on timely manner.

Industry is required to check PACA website on [www.paca.gov.om](http://www.paca.gov.om) for future updates.

Please coordinate with the relevant Departments/Inspectors for more details or additional information.