Civil Aviation Authority of Malaysia **CIVIL AVIATION NOTICE (CAN)**	

Notice No:	*CAN 016/2021*	**Issuing Office:**	*Civil Aviation Authority of Malaysia* *Level 8, Galeria PJH,* *Persiaran Perdana, Presint 4,* *62100 Putrajaya,* *Wilayah Persekutuan Putrajaya* *Malaysia*.
Issue Date:	*25 December 2021*		
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Expiry Date:	*31 December 2022*		
Related Reg:	*Reg 120 MCAR 2016; Paragraph 4.8 of CAD 6 Part 1 – CAT*		
Revision:	*00*		

EXEMPTION FOR CARRIAGE OF CARGO IN THE PASSENGER CABIN

1 Introduction

1.1 In exercise of the powers conferred by section 24O of the Civil Aviation Act 1969 [*Act 3*], the Chief Executive Officer makes this Civil Aviation Notice ('CAN') 016/2021 to provide requirements and guidance on the carriage and stowage of cargo in the aircraft passenger cabin in exceptional circumstances, to increase cargo carriage capacity beyond the capacity of the lower cargo compartments.

1.2 CAN 016/2021 supersedes CAN 004/2020 Revision 01 dated 06 May 2021.

1.3 The scenario stated in 1.1 excludes the carriage of passengers.

1.4 EDTO flights conducted using this exemption are limited to a maximum diversion time of 90 minutes.

1.5 List of exempted Regulations and Directives:

a) Regulation 120 of the Malaysian Civil Aviation Regulations 2016.

b) Paragraph 4.8 of Civil Aviation Directive 6 Part 1 – Commercial Air Transport.

1.6 References:

a) EASA Guidelines Document TE.RPRO.00065-003 Issue 5.1 – Transport of Cargo in Passenger Compartment – Exemptions under Article 71(1) of Regulation 2018/1139 (The Basic Regulation).

b) CAAS AC 121-4-2 (Rev 1) Advisory Circular – Carriage of Cargo in the Passenger Cabin.

c) FAA Exemption No. 18561, Regulatory Docket No. FAA-2020-0429.

d) FAA Exemption No. 18584, Regulatory Docket No. FAA-2020-0492.

e) FAA SAFO 20008 – Transporting Cargo on Transport-Category Airplanes Configure to Carry Passengers.

2 Carriage And Stowage Of Cargo In The Cabin

2.1 For the safe operation of cargo in the cabin, the AOC holder must ensure that there is proper management to address changes to the aircraft weight and balance, and possible in-flight emergencies such as cargo dislodge, spillages and smoke and fire.

2.2 Modifications may be made to the aircraft for the carriage of cargo in the passenger cabin including cargo on seats. For major modifications i.e. cargo stowed on the floor where seats are removed, the AOC holder shall obtain a Major Modification Approval from CAAM or through modification data provided in the form of Foreign Supplemental Type Certificate (STC) or an approved Service Bulletin issued by the type certificate holder. The foreign STC shall be subjected to CAAM validation as required by Regulation 24 of the Malaysian Civil Aviation Regulations (CAR) 2016.

2.3 For carriage of cargo on the seats for both medical and non-medical supplies not classified as dangerous goods and the modification is classified as minor, the modification shall be approved by CAAM or CAAM-approved design organisations (DOA).

2.4 The AOC holder will need to develop and implement a policy for the carriage of cargo in the cabin, which must address at least the requirements in paragraphs 2.5 to 2.43 below.

Preparing the aircraft

2.5 There shall be a sufficient quantity of portable emergency equipment such as fire extinguishers and Protective Breathing Equipment (PBE), considering the cargo size, cargo type, persons on board and type of operation (e.g. EDTO). Fire extinguishers and other life-saving equipment shall be stowed in an accessible locations and marked accordingly.

2.6 All smoke and fire detectors shall be maintained as per the applicable Instructions for Continued Airworthiness (ICA) or Component Maintenance Manual (CMM), if modification has been carried out to install such equipment.

2.7 Supplemental oxygen systems in the passenger compartment where cargo is stowed must either be deactivated or removed.

2.8 Articles under the air operator's property that are classified as dangerous goods (including fire extinguishers, oxygen bottles and portable devices containing lithium batteries) and that are required to be carried in the passenger compartment for the

normal operation of the aircraft or to meet relevant airworthiness requirements may be allowed, subject to CAAM approval, and shall be repositioned away from areas stowed with cargo.

2.9 The air conditioning and pressurisation system should be set taking into account the location of crew and cargo on board, and any emergency procedure that utilises the systems.

2.10 To prevent overheating of passenger compartment systems, non-flight essential systems, such as in-flight entertainment systems, seat power systems, unused galley ovens and chiller shall to be switched off.

2.11 Markings or placards shall be used to indicate the maximum allowable stowage mass at a given location within the passenger cabin, and identify areas that cargo should not be stowed. 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.

Preparing the Crew

2.12 There shall be a minimum of four cabin crew members on board whose duties include fire detection and fire-fighting in the cabin. Additionally, sufficient and appropriate safety equipment must be provided for each crew. This applies to both single and twin aisle aircraft. If an Airbus A380 is used, a minimum of 8 cabin crew members shall be on board (4 cabin crew members in each deck).

2.13 Checks shall be made before take-off, before landing and whenever requested by the captain to ensure that cargo is properly stowed and secured. Operators shall establish procedures to manage emergencies in the cabin and shall publish temporary revisions to the operations manual to include the new type of operations and the related procedures.

2.14 The procedures for crew shall be heightened to increase vigilance at areas where cargo is carried to ensure that there is no smoke and any potential fire hazard as fire suppression systems are not present in the cabin. When developing these procedures, consideration must also be given to the management of crew's safety whilst they are conducting the inflight checks on cargo. These must include rapid accessibility to emergency equipment.

2.15 Proper handling or management of cargo fire, spillage, and leakage shall be established through procedures.

2.16 Procedures shall be developed for the crew to identify areas that are permitted for stowage of cargo, and to verify that cargo are secured properly in the cabin and restraints are used correctly as part of their ground duties, including handling of in-flight loosened cargo.

2.17 Crew shall be seated at suitable seat locations to maintain visibility of stowed cargo. Crew shall not be seated in the same seat row as cargo secured on seats, and there shall be at least one empty row of seats between the crew and any seat stowed with cargo.

Preparing the Cargo

2.18 Cargo designated for loading in the passenger compartment shall be adequately packaged to withstand the conditions (including changes to cabin air pressure and vibration) encountered in air transport and the normal handling of cargo by ground staff.

2.19 The mass of the cargo packages shall be within the maximum allowable mass of its intended stowage location and the cargo dimensions must permit stowage without exceeding the confines of that location. In addition, the shape of the cargo packages must not impede the effectiveness of restraint devices needed to secure the cargo at its intended stowage location.

2.20 Cargo intended for loading in the passenger compartment must be inspected to verify their mass, dimension and volume is suitable for loading at the various pre-identified cargo stowage locations in the passenger compartment to prevent any damage to the aircraft's cabin equipment and interior.

2.21 Cargo intended to be stowed on passenger seats must not exceed 22.5 kg (50 lbs) per seat place or 50 kg (110 lbs) in a single package per triple seat respectively. The dimensions of the cargo must not exceed the width of the seat and the height of its seat back. Unless an analysis is carried out to assess if the moment generated by forward inertia for emergency landing conditions is lesser for a cargo loading configuration, the vertical centre of gravity (CG) of the stowed cargo on the seat must be equal or lower than the passenger CG of the seat that is provided by the seat supplier. The seat must be locked in upright taxi, take-off and landing (TTL) position.

2.22 Cargo may only be stowed under seats that have a restraint bar system. Each cargo package to be stowed under a seat shall not exceed 9 kg (20 lbs) and must fit fully underneath the seat.

2.23 Cargo secured to the floor of the passenger compartment where seats have been removed should not exceed the height of those seats that were removed.

2.24 The volume of each cargo cluster secured to the floor of the passenger compartment where seats have been removed should not exceed 3.54m^3 (125 ft^3). Additionally, the cargo mass for a given location should not exceed the area and linear load limitation of the floor in the passenger compartment.

2.25 Dangerous goods prepared for transport as cargo (including those meeting the excepted quantity provisions of the ICAO Technical Instructions) or in air mail shall not be carried in the passenger compartment since the fire detection and suppression systems in this compartment are not designed for the carriage of such goods. Procedures and systemic safeguards shall be established to ensure that cargo or air mail containing dangerous goods are not loaded into the passenger compartment.

2.26 Cargo, including all restraint devices, shall be weighed and its actual mass communicated to the staff responsible for load planning.

2.27 When planning cargo loads in the passenger compartment, the sequence of loading/unloading of cargo into/from various locations of the aircraft shall be specified in order to avoid hazards related to imbalance of the aircraft during such activities.

2.28 The actual mass of cargo and restraint devices in each seat-zone and the total actual mass of all cargo and restraint devices in the passenger compartment shall be accounted for and documented on the load sheet. The pilot-in-command shall be provided with information on the content of all the cargo such as through provision of the cargo manifest or other appropriate documentation.

2.29 Cargo designated for loading in the passenger compartment shall be clearly communicated to the staff responsible for loading the aircraft using a Loading Instruction Report (LIR). The LIR must specify the identification and quantity of cargo to be stowed at each location, the actual mass of cargo planned for stowing in each seat zone and maximum allowable cargo mass permitted in each seat zone.

Loading and Stowing the Cargo in the Cabin

2.30 The loading and unloading of cargo in the passenger compartment must be carried out in accordance with the established sequence and the instructions in the LIR, taking into account any changes made to it.

2.31 Care must be taken to ensure that aircraft ground stability is maintained at all times during loading and unloading operations.

2.32 Checks must be put in place to verify that cargo stowed in the cabin are adequately restrained and tied down, and are to be in compliance with the procedures

established in the AOC holder's operations manual and the aircraft manufacturer's manual.

2.33 Cargo restraint devices used must be certified to meet airworthiness design standards where available. For example, cargo nets and cargo straps must meet the TSO-C90 and TSO-C172 design standards respectively, or their equivalents.

2.34 Cargo stowed on the floor where seats are removed, must be restrained and secured to the cabin floor seat tracks, such that it can accommodate the ground, flight, turbulence, take-off, landing and emergency landing conditions per 14 CFR 25.561 or CS 25.561, as applicable.

2.35 Cargo stowed onto seats must be secured to the seat primary structure, or directly to the cabin floor seat tracks in accordance with the applicable load limitations of each component including the cargo restraint means, such that it can accommodate the ground, flight, turbulence, take-off, landing and emergency landing conditions per 14 CFR 25.561 or CS 25.561, whichever is applicable.

2.36 Prior to loading cargo at any location, all cargo packages are to be inspected to verify that there are no markings or labels that would suggest that its contents may contain hidden dangerous goods. Packaging of the cargo must be in a good condition and its contents are not exposed or leaking. Since dangerous goods contained in air mail cannot be identified by markings, labels or through documentation when offered for transport by air, the AOC holder shall make special arrangements with designated postal operators if it intends to transport air mail that do not contain dangerous goods in the passenger compartment, to ensure that dangerous goods are not inadvertently carried.

2.37 For twin-aisle aircraft in which the seats are not removed, an empty seat row must be provided to allow crossing from one aisle to the other. The empty seat row must be, as much as possible, at equal distances from the cross-aisles required by 14 CFR 25.813 or CS 25.813, whichever is applicable.

2.38 Cargo stowed under seats shall be strapped securely to the seat primary structure such as the seat leg(s) and/or seat beam(s).

2.39 The placement of cargo must allow the crew to have sufficient access to inspect the cabin and respond to incidents of smoke or fire.

2.40 Cargo must not be stowed at the emergency exit rows, aisles and/or at any locations that would obstruct access to the emergency exits or to access any emergency equipment in the passenger compartment. Regardless of the aircraft's certified seating capacity, the remaining aisle width after stowage of cargo must not be less

than the minimum aisle width specified in the applicable 14 CFR 25.815 or CS 25.815 for the criteria of an aeroplane with a seating capacity of 10 or fewer passengers. For cargo secured to the floor, the aisle width should be at least 51 cm (20") and allow the crew to move along the aisles unimpeded to carry out their duties.

2.41 Cargo must not be placed near the cabin depressurisation relief vents, to avoid risk of cabin floor collapse in the event of rapid cabin depressurisation during flight.

2.42 Cargo stowed in enclosed stowage areas must not prevent latched doors from being closed securely.

2.43 The cargo must not be stowed in such a manner that could obstruct any view of the passenger information signs or the required emergency evacuation signs/escape lighting.

3 Training of Personnel

3.1 The AOC holder must ensure that appropriate training is provided to the relevant personnel, and to both local and overseas handling agents, to enable them to understand regulatory requirements, policy and procedures, responsibilities and duties as well as limitations related to the carriage of cargo in the passenger cabin.

3.2 All crew assigned for cabin management roles or duties must be trained on safety emergency procedures, use of emergency equipment and standard operating procedures for all phases of flight.

4 Approvals Required

4.1 The AOC holder shall seek CAAM approval for the exemption for carriage of cargo in the passenger cabin prior to commencing operations. In seeking the approval, the AOC holder must submit a detailed risk assessment to identify hazards, evaluate and mitigate correlated risks related to the carriage of cargo that are necessary for airworthiness purposes. The AOC holder must also include in the submission supporting documents from the aircraft manufacturer that provides for the carriage of cargo in the cabin.

4.2 Additionally, the risk assessment must also include a gap analysis of current procedures and the AOC holder must develop required procedures accordingly and must ensure that the responsibilities of crew in the cabin are clearly defined.

4.3 The AOC holder must identify considerations in addition to the ones in paragraphs 2.5 to 2.43 that are required for the carriage of cargo in the cabin, and establish

procedures for such operations in its operations manual and aircraft maintenance manuals.

4.4 AOC holders who obtained an approval for the exemption for carriage of cargo in the passenger cabin based on CAN 004/2020 issued on the 18 September 2020 may continue to exercise the exemption. However, if there are changes to the AOC holders operations affected by the revised items in this CAN and/or items stated in 4.5, the AOC holder is required to submit a new application for operational approval. No additional airworthiness approval is required if no new modifications are carried out.

4.5 The AOC holder will need to seek CAAM approval for any amendment made to the operations manual, Minimum Equipment List, training programmes or checklists prior to commencing operations.

5 Return To Passenger Service

5.1 Before the aircraft is returned to passenger service, the AOC holder must ensure that a thorough check of all cabin systems, equipment and fittings is performed by Maintenance personnel, as part of the verification that the aircraft is restored back to the configuration certified for passenger service.

6 Period of exemption

6.1 The period will be the duration of any phase of the National Recovery Plan or Movement Control Order, or until 31 December 2022, whichever is earlier.

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CAPTAIN CHESTER VOO CHEE SOON

Chief Executive Officer

for Civil Aviation Authority of Malaysia

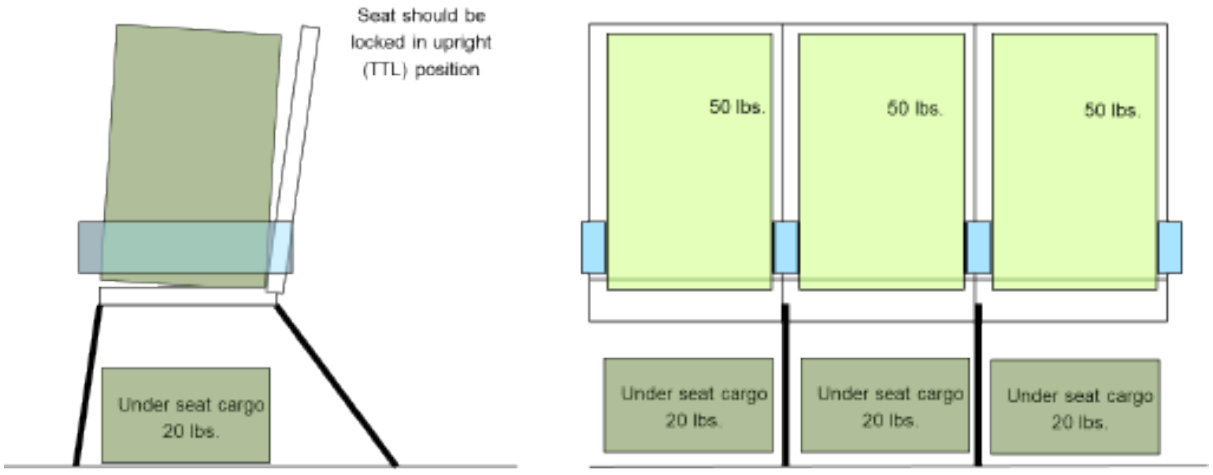
25th December 2021

Attachments

Attachment A – Example for loading cargo on seats

Interim cargo carriage on seat for 3 boxes maximum 22.5kg (50 lbs)

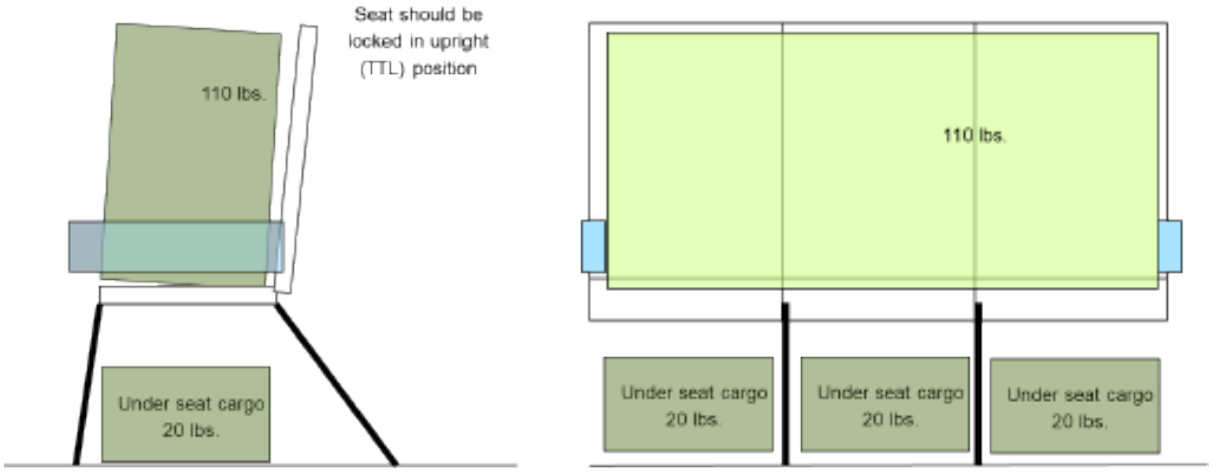
Maximum height of cargo not higher than top of seat backrest



Interim cargo carriage on seat for 1 box maximum 50kg (110 lbs)

Maximum height of cargo not higher than top of seat backrest

Cargo restraint means are not shown.



Attachment B – Recommended procedures for loading and unloading of cargo

The below recommended procedure is an example. The recommended loading / unloading sequence depends on the aircraft type.

Sequence for loading:

1) First, load the lower forward cargo compartment.

2) Next, load the main deck from the front to the back.

3) Last, load the lower centre/aft cargo compartments (lower cargo compartment aft of the wing).

Sequence for unloading:

4) Reverse order from loading sequence.