



GUIDANCE FOR TRANSPORT OF CARGO IN THE AIRCRAFT PASSENGER CABIN – (COVID 19 MEDICAL AND ESSENTIAL SUPPLIES)

Subject: TRANSPORT OF CARGO IN THE AIRCRAFT PASSENGER CABIN - COVID 19

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1. PURPOSE OF THIS GUIDELINES

The purpose of this document is to provide guidelines for Air operators to consider when applying for an exemption under the South African Civil Aviation Regulations (of 2011 as amended (SACARs) allowing the transport of cargo in passenger cabin on the aircraft passenger seats, during the current COVID-19 outbreak.

Air cargo services are vital for the economy and for fighting of the novel Corona Virus Disease (nCOVID-19) pandemic, Air operators 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 and more operators are required to fly cargo using passenger aircraft. The purpose of this document is to provide guidelines to air operators for transporting cargo in the cabin certified to carry only passengers.

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

Applications for an exemption shall be made in terms of Part 11.04.2. The provisions of regulation 11.04.1 to 11.04.5 applicable) and the fee prescribed in regulation 187.01.1 are applicable. Applications for exemptions must be submitted to the Director 30 days before the required effective date of such an exemption. If a shorter period is required due to urgency, a detailed motivation to that effect must accompany the application. A separate form must be submitted for each individual application.

Please note that all applications must include the information, which demonstrates the ability to comply with the requirements as detailed in the guidance material detailed below.

2. REFERENCES OF LEGISLATION AFFECTED BY THE SCOPE OF THE EXEMPTION:

1. Civil Aviation Act, No 113 of 2009
2. Air Services Licensing Act, No.115 of 1990
3. International Air Services Act, No. 60 of 1993
4. Civil Aviation Regulations, 2011
5. Airbus, FOT-999-0028-20-00
6. Boeing, MOM-MOM-20-0239
7. Other guidelines issued by applicable Type Certificate (TC) or Supplemental TC holders.

3. APPLICABILITY

This guideline is applicable to Air operators requesting an exemption to the Flight Operations and Continued Airworthiness requirements for transporting Cargo in cabin and on passenger seats. Operators who are using passenger aircraft to transport cargo only, with passenger seats empty and only using the designated cargo compartments are not subjected to further approvals.

The exemption application is only applicable as follows;

- a) Cargo shall only be transported by Operators holding valid Air Operators Certificate and a valid Domestic or international Air Service licence with Cargo transport approvals.
- b) Aircraft approved for transport category as per their applicable Type Certificate Data Sheet.

4. RESTRICTIONS

The exemption should 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 should be limited to cases when no approved design data are available. The exemption if granted shall be valid for COVID-19 supply flights only and these privileges cannot be used as a precedence in the future/ when the pandemic is over. Operators may apply for a limited number of aircraft but not down to a specific tail number.

This process should ONLY be used if you intend to carry freight/cargo on the installed passenger seat in the cabin. Only operators who are approved to carry cargo can apply for this dispensation. Application is valid for a limited time no more than a month after the end of COVID-19.

5. REQUIREMENTS APPLICABLE TO TRANSPORT CARGO IN CABIN AND ON PASSENGER`S SEAT

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

5.1. AIRCRAFT CONFIGURATION REQUIREMENTS:

- a) The mass of the cargo shall not exceed the structural loading limits of the floor or passenger seats, as published in the aircraft documentation (e.g. Limitation chapter of the Weight and Balance Manual, airworthiness limitations). Compliance with the applicable airworthiness standard is expected: making sure of this by not exceeding 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 passenger seats and the goods in case of smoke or fire.
- e) There must be a clear separation of areas occupied by essential occupants (supernumeraries) and those fitted with cargo during taxi, take-off and landing. At least one empty seat row between cargo and essential occupant seats must be established. No cargo on the front passenger or the front row.
- f) All smoke and fire detectors shall be maintained as per Aircraft Maintenance Manual (Instructions for Continued Airworthiness).
- g) The vertical center of gravity (CG) of the cargo must be equal to or lower than the passenger CG 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 movements. Seat backrest are typically not designed to hold emergency landing forward loads induced by cargo. Cargo shall not protrude forward of the base of the seat unless there are calculations that justifies this in terms of strength of the container and the restraint method.

5.2. 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. The extinguishing agent should be capable of extinguishing or suppressing the fire caused by the cargo and its container.
- 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):
 - i. Before take-off,
 - ii. Before landing
 - iii. 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 emergency equipment. Thoroughly briefed essential crew/supernumeraries shall be on-board to survey and access all areas of the cabin during all flight phases.
- j) There must be an adequate number of trained essential crew/supernumeraries acting as fire-fighters (not part of the flight crew) with sufficient amount of firefighting equipment: Air operator may increase the number of firefighting equipment depending on the type of cargo, quantity and 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 essential crew.
- k) Occupants should be placed on existing cabin crew or passenger 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 should 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, the number and distribution of cabin occupants. The air condition should be set in a way that is impossible for the aircraft operating crew to inhale air from the cabin cargo.
- o) The load should be evenly distributed across the entire seat. The loading on each seat should not exceed 77 kg (170 lbs) in the case of cargo transportation.
- p) Operations without passengers shall still require one or more essential 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 emergency equipment.
- q) Essential crew shall sit on the seats which are not located near the cargo (i.e. first rows).
- r) Operators shall publish temporary revisions to the Flight Operational Manual (FOM) or a Standard Operation Procedures (SOP's) covering all the aspects of the exemptions and submitted to SACAA for approval to include the new type of operations and the related procedures.
- s) The strength of the packaging container in relation to the goods it will carry needs to be evaluated.
- t) The type of any additional training given to the essential crew/operating crew for these special operations needs to be stated.
- u) Additional training and briefing shall be given to the aircraft operating crew particularly letting them know whether the limits have been increased from those applicable to the passengers to those applicable to cargo.
- v) The operator shall load the aircraft considering the different levels of available fire protections of the loading areas.
- w) The operator shall provide evidence of fire extinguishing agent in the cabin is suitable for the cargo the operator intent to carry on the passenger seat, the fire extinguisher shall be accessible to the essential crew member.

5.3. TRANSPORT OF DANGEROUS GOOD

- 1) Dangerous goods shall only be transported by Operators, whom hold an existing approval to carry dangerous goods and have been approved by the SACAA to perform such operations
- 2) No new applications for approvals shall be processed during the lock down period.
- 3) In the absence of passengers and based on a risk assessment the limits for dangerous goods can be increased to those established in the Technical Instructions for Cargo Aircraft only.
- 4) The Pilot in Command (PIC) shall be informed of the content of all dangerous goods cargo using Notice to Captain (NOTOC).
- 5) In instances where limits have been increased to those of a Cargo Aircraft only, the crew must be duly briefed. The briefing should, at least, include the following:
 - a) The risks and consequences of increasing the amount of DG in the hold;
 - b) Any changes in the emergency procedures and the emergency equipment that may be on board.
 - c) Relevant information on dangerous goods (e.g. affecting emergency procedures) shall be included in the briefing given to other people occupying the aircraft.
- 6) Dangerous goods shall only be carried in the approved and designated/or dedicated Cargo hold and shall be transported under the conditions established in the Technical Instructions.
- 7) All dangerous goods acceptance, verification checks, documentation processes shall be in accordance with the operator's approved dangerous goods procedures manual.
- 8) The aircraft shall be treated as a Cargo Only aircraft and therefore no other persons other than a crew member, an operator's employee in an official capacity, an authorised representative of or an authorised person accompanying a consignment or other cargo may be present on board.

5.4. CARGO SECURITY

- 5.4.1 No carrier may load unknown cargo onto an aircraft within the Republic.
- 5.4.2 Regulated Agents are responsible for securing shipments of air cargo for carriage on an aircraft out of South Africa.
- 5.4.3 Details of security controls to be applied to air cargo until the departure of the

aircraft must be supplied.

- 5.4.4 A procedure of how the security status will be conveyed to each station until its destination shall be provided.
- 5.4.5 Details of how items prohibited in the cabin of an aircraft, yet permissible as air cargo will be kept out of the aircraft cabin must be provided.
- 5.4.6 A detailed procedure of the security measures applied to all personnel with access to known cargo from point of acceptance until departure must be provided.

5.5. AIRWORTHINESS ASPECTS FOR TRANSPORT OF CARGO IN THE PASSENGER CABIN

5.5.1. Design change approval requirement for Transport of medical supplies

Transport of cargo on passenger seats is a major change to the aircraft type certificate. However, in the context of the emergency situation created by the Covid-19 pandemic, the South African Civil Aviation Authority (SACAA) may temporally reclassify such modification as “Minor Change” and approve such modifications following a CA 43-14 application process, to allow for the use of cabin seats when related to the transportation of medical supplies (e.g. masks, gloves, etc.). The applicant will be required to submit approval or supporting documents (design data) including the AFM Supplement. Under the COVID-19 crisis the SACAA is committed to process the modification applications with priority.

5.5.2. TRANSPORT OF EMERGENCY MEDICAL SUPPLIES IN THE EXISTING CERTIFIED STOWAGE

Carriage of cargo in existing certified cabin stowage areas (under the seats, luggage compartments does not constitute a modification and therefore does not require any design change approval.

6. NOTIFICATION

In addition to publishing the outcome of all exemptions on the SACAA website, ICAO will also be notified of all exemptions granted in this regard.

7. CONCLUSION

The air operator shall inform the Firefighting services and the local airport authority/operator about the type of operation and cargo on board. This guidance will be updated as and when required, industry is required to monitor the SACAA website on www.caa.co.za for future updates.

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

A handwritten signature in black ink, appearing to be 'S. Segwabe', with a long horizontal stroke extending to the right.

SIMON B. SEGWABE
EXECUTIVE: AVIATION SAFETY OPERATIONS
DATE: 17 APRIL 2020