

**Proposed Special Condition on Installation of Cargo Seat Bags for the purpose
of transporting passenger luggage
Applicable to Large Aeroplane**

Issue 1

Introductory note:

The hereby presented Special Condition has been classified as an important Special Condition and as such shall be subject to public consultation, in accordance with EASA Management Board decision 12/2007 dated 11 September 2007, Article 3 (2.) of which states:

"2. Deviations from the applicable airworthiness codes, environmental protection certification specifications and/or acceptable means of compliance with Part 21, as well as important special conditions and equivalent safety findings, shall be submitted to the panel of experts and be subject to a public consultation of at least 3 weeks, except if they have been previously agreed and published in the Official Publication of the Agency. The final decision shall be published in the Official Publication of the Agency."

Statement of Issue:

EASA was made aware of minor changes to install Cargo Seat Bags on passenger seats in order to conduct flights for transportation of mail and/or cargo.

A Certification Memo EASA CM – CS – 003 Installation of “Cargo Seat Bags” on Passenger Seats was issued on 14th Nov 2012 requiring application for major modification or STC.

EASA received a new application for a STC and therefore started the process to review the applicable Special Conditions.

Whereas the initial issue of the Special Condition was addressing an installation of Cargo Seat Bags in the entire passenger cabin, this SC addresses the installation of a limited number of Cargo Seat Bags in combination with a normal cabin seat layout used by fare paying passengers . The intention of this installation is the possibility to transport limited specific items of passenger luggage such as skiing equipment (without skis and poles) and golf equipment bags.

Since the installation of Cargo Seat Bags is a change in the scope of operation of the aeroplane, and in the absence of 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.

While the certification base for the aeroplane models affected by the change may vary the configuration of the aeroplane cabins modified for transportation of passenger luggage shall conform to a minimum standard with respect to the affected parts of CS 25.

Generic applicability to Large Aeroplane – Special Condition – Installation of a limited number of Cargo Seat Bags for the purpose of storing **specific passenger luggage (eg sports equipment)**

Due to the fact that there are no certification requirements in place for the installation of Cargo Seat Bags, Special Conditions and acceptable Means of Compliance have been defined for installation.

The installation of cargo seat bags into passenger cabins is affecting mainly:

- the structural integrity and retention of mass item under flight and emergency landing conditions, and
- the fire protection due to the amount of cargo in the passenger cabin
- emergency evacuation provisions. The intent of this SC is to provide requirements for the installation and instruction for operation for Cargo Seat Bags in passenger aeroplane. Due to lack of requirements in some part of the CS 25 and the operating rules Special Conditions are listed below.

The change of the cabin when fitted with Cargo Seat Bags is of temporary nature. When converted into the configuration for transportation of additional passenger luggage beside passengers, the cabin shall comply with the requirements outlined in the SC below.

Special Conditions

1. Structural integrity

a. The bags must be fully enclosed and the enclosure [and its attachments back to the seat and aircraft structure](#) must withstand the loads specified in [the emergency landing conditions of CS 25.561](#) [and the flight and landing loads of the specific aeroplane model as specified](#) (CS25.787(a)).

b. The Cargo Seat Bags must retain its content under loads in flight (flight and landing loads of the specific aeroplane model) and the emergency landing conditions specified in CS 25.561(b). (CS 25.789(a) – Retention of items of mass in passenger and crew compartments and galleys).

2. Fire-protection

In the absence of compartments classified under CS 25.855 compensating factors shall be provided for each installation of cargo bags on passenger seats. If no smoke detection or fire suppression system is installed, dedicated and trained personnel i.e. Cabin Crew shall accompany additional passenger luggage on passenger flights where Cargo Seat Bags are installed and passenger luggage is loaded into the cabin. In addition compliance with the following conditions shall be shown:

a. Regardless the number of passenger seats installed in the aeroplane cabin, there must be an adequate number of fire extinguishers installed in the cabin containing extinguishing agent sufficient to fight a fire in at least one Cargo Seat Bag taking into account all bag loading configurations.

b. There must be at least the following firefighting equipment installed in the cabin and readily accessible for firefighting personnel:

- i. A smoke hood (ETSO C116 or equivalent)
- ii. Fire protecting gloves
- iii. Crow bar
- iv. One torch

The equipment may be part of the aeroplane's basic emergency equipment.

c. There must be provisions for detecting a fire or smoke in the compartment in which the cargo seat bags are installed. In the absence of a detection system installed in the compartment approved alternative means must be provided, refer to the MOC section further below.

d. The Cargo Seat Bags shall comply at least with the criteria defined in CS 25, Book 1 appendix F Part 1(a)(1)(iv) and (v).

3. Emergency Evacuation

- a. Cargo Seat Bags installed, but not filled must be fully closed and secured to prevent anyone becoming trapped in an emergency case.
- b. CS 25.813 – Emergency exit access; the Cargo Seat Bags shall not be installed in seat rows fore and aft or leading to emergency exits (especially Type III or IV emergency exits)
- c. CS 25.815 – Width of aisle; the installation of Cargo Seat Bags must not decrease the width of the aisle(s) beyond the dimensions defined in 25.815 whereas the number of all passenger seats (regardless they are occupied by a person or a Cargo Seat Bag) installed defines the dimensions in the table in § 25.815
- d. CS 25.812 – Emergency lighting; the installation of the Cargo Seat Bags must not obscure any portion of the emergency lighting system e.g. non electrical floor path marking installations, low level exit identifier, etc. regardless the number of occupants in the passenger cabin.
- e. i.e. CS 25.Amdt 12, para 25.807 (f)(1) – on aeroplane cabins with only one pair of emergency exits Cargo Seat Bags must not be installed on seat locations where passengers have to by-pass those locations to reach any required emergency exit.

4. Loading Limitations

The transport of passenger luggage by means of Cargo Seat Bags, is limited to the following:

- Skiing gear (except skis and poles)
- [Golf Equipment / Bags excluding electrically powered Golf Trolleys](#)
- [None of the above items is allowed to be stowed if it contains one or more batteries. Any battery – if feasible – is to be removed or all battery powered items are to be stored in the overhead bins.](#)

Any individual airline company policy prohibiting specific items in the cabin has to be respected.

The number of acceptable Cargo Seat Bags will be assessed per the individual Cabin Configuration.

5 Procedures

The installation, the loading and the closure of the Cargo Seat Bags has to be accomplished by appropriate Maintenance personnel.

Content of Cargo Seat Bag must not be made available to passengers during flight. Passenger luggage is defined to be luggage of passengers on the same flight.

The airline has to establish procedures to comply with the loading limitations under §4 and the loading weight limitations according AFMS .

The Airline has to establish procedures to ensure the continuous observation of the cargo seat bags by the dedicated personal (e.g. cabin crew)

Specific firefighting procedures for Cargo Seat Bag fires have to be established.

Note: as the Cargo Seat Bags are intended for storage of additional **specific** passenger luggage the stowage location is different to those normally used for storing passenger luggage. Cargo Seat Bags are far more difficult to access due to size and distance from the main aisle. Quantities of extinguishing agent required to fight a fire in a bag may be in excess to those known in other fire cases.

Means of Compliance

1. Structural integrity

a. The supplier of the Cargo Seat Bags shall provide any limitations regarding loading and installation, instruction for CAW, instructions for use. In addition, any limiting factor such as specific restraint devices including seat belt and/or harness strength, supplementary strap strength if applicable, seat strength and seat track loads and limiting floor loading strength etc. have to be considered.

2. Fire protection

a. While the applicable certification basis is different for the various change applications, the CS 25.851 at change 4 is acceptable with respect to the installation of Cargo Bags. The applicant shall verify that the fire-fighting capability is sufficient for the change applied to the cabin taking into account the equipment already installed in the passenger cabin. If it is necessary to install further equipment (fire extinguisher and/or smoke protection equipment) this equipment may be stowed in the cabin using existing stowage provisions (overhead bins, stowage's) if the location is identifiable for the crew.

b. CS 25.855 – Cargo and baggage compartments; while this paragraph applies for cargo compartments not occupied by passenger and crew, an equivalent safe level must be achieved when the cabin is occupied by passengers. Since there is no cargo compartment classification suitable for this kind of operation the following provides acceptable means of compliance:

i. The luggage is restricted in type and quantity

ii. In the absence of a smoke detection system installed in the compartment the following applies:

— There must be one or more trained personnel acting as fire-fighter (not part of the flight crew) regardless the number of passenger seats remaining for use

— Trained personnel must be adequately located to detect smoke in the cabin compartment fitted with cargo bags within 60sec, or performing visual checks at acceptable regular intervals in order to detect the presence of a fire.

c. Occupants sharing the same compartment with passenger luggage must be protected from hazardous quantities of smoke.

3. Emergency Evacuation

a. A limited number of Cargo Seat Bags may be carried on a flight for transportation of specific passenger luggage. Occupants must not share seat rows with Cargo Seat Bags installed. There must be a clear separation of areas occupied by occupants and those fitted with Cargo Seat Bags.

b. The time to charge the non-electrical floor path marking stripes must be defined for a cabin fitted with the Cargo Seat Bags.