

**DEPARTMENT OF CIVIL AVIATION
MALAYSIA
AIRWORTHINESS NOTICE**

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Date: 1 July 1997

GALLEY EQUIPMENT

1. Applicability

This Airworthiness Notice is applicable to all galley equipment installed or carried for use on an aircraft. For the purpose of this Notice, "Galley Equipment" includes service carts, catering trolleys and their means of restraint in the passenger area; galley inserts including ovens, water boilers, coffee makers, refrigerators, etc., and control panels dedicated to individual equipment.

2. Introduction

- 2.1. It has become increasingly apparent that some designers and installers of galley equipment installed or carried in aircraft have not recognized the need to satisfy the relevant requirements of and that as a result in certain instances safety has been prejudiced.

NOTE : For the purpose of this Notice, the "relevant requirements" are the prescribed requirements such as of BCAR, JAR, or FAR, associated with the type certification basis accepted by the DCA for the issue of the Certificate of Airworthiness for the aircraft in which the galley equipment is installed.

- 2.2. All equipment installed or carried in an aircraft shall be installed or stowed and kept stowed and so maintained and adjusted as not to be a source of danger in itself or to impair the airworthiness of the aircraft or the proper functioning of any equipment or services necessary for the safety of the aircraft.
- 2.3. This Notice is issued to rectify the situation in paragraph 2.1 and to emphasize that these requirements constitute the basis for certification of galley equipment, not only when they form part of the aircraft type design but also when they are fitted in an aircraft already issued with a Certificate of Airworthiness or when such equipment fitted to an aircraft is modified. This Notice also defines the procedures which apply to the certification of galley equipment.

3. Compliance

With effect from 1 April 1987 all equipment used in all galley installations is required to satisfy the requirements stated herein.

4. Procedure

- 4.1. Trolleys and items of galley equipment which require electrical power are, unless otherwise specifically agreed by the DCA, classified as 'Controlled Items' of equipment as and approved under procedures acceptable to the DCA.

NOTE : For the purposes of this Notice, "controlled items" defines equipment the installation or failure of which could adversely affect the airworthiness and safe operation of an aircraft.

- 4.2. Catering boxes and equipment not requiring electrical power are classified as "Uncontrolled Items". It is therefore necessary for an appropriately approved organization to accept responsibility for the suitability and quality of such equipment.

NOTE : For the purposes of this Notice "Uncontrolled Items" defines items which in themselves are not inherently unsafe and, when installed, cannot adversely affect the airworthiness and safe operation of the aircraft and so installed that, in the event of their failure or malfunction, the items will not endanger the aircraft or its occupants.

- 4.3. Catering trolleys, designed for use in specific galleys on particular aircraft types, are considered as an extension of the aircraft structure via the galleys and are, therefore, required to be certificated as modifications.

5. Interpretation Of Applicable Requirements

- 5.1. The design of galley inserts shall comply with the intent of JAR 25X1499 and its associated Advisory Circular-Joint (ACJ) or equivalent standard acceptable to the DCA which provides an equivalent level of safety. Additionally, general requirements for all electrical equipment in respect of electrical and magnetic interference, such as BCAR Chapter D6-13, or JAR 25-1353 apply.

- 5.2. The design of all galley equipment shall minimize the risk of personal injury to the user as required by the relevant JAR, BCAR, or FAR requirements as applicable. In particular, vessels containing heated liquids over 45 °C shall have closely fitting integral lids. The use of open hot-plates and open cooking utensils as frying pans is not permitted.
- 5.3. Galley equipment and its' installation shall have adequate strength to comply with the emergency alighting, flight and ground cases of the relevant JAR, BCAR, or FAR requirements as applicable.
- 5.4. The local attachment factor of 1.33 applies, in addition to the relevant prescribed acceleration forces, to door hinges, catches and restraint means which form part of the equipment structure, and to structure adjacent to the restraint means provided by the galley and similar stowage.
- 5.5. Doors, including their hinges and catches, or catering boxes, etc., must be of strength compatible with the placarded contents weight, unless use of the box is restricted to stowage in completely enclosed galleys, or similar compartments. This also applies to the doors of catering trolleys, but in their case the total structure of the trolley must also be shown to be in compliance with the strength requirements, taking into account the means of retention of the trolley in the aircraft.
- 5.6. The design of the trolley should be such that the loads imposed on the aircraft floor do not exceed any floor loading limitations.
- 5.7. (a) It is strongly recommended that duplicated catches are provided for means of retention for items which are habitually operated during flight, to allow for failure of one of the catches.
- NOTE : In respect of galley equipment which is located in the vicinity of flight attendant seats, FAA Advisory Circular AC 25.785-1A (Flight Attendant Seat and Torso Restraint Systems Installations) paragraph 7b provides an acceptable means of compliance with FAR 25.785(j) (pre-amendment 25-72; the equivalent paragraph post amendment 25-72 is 25.785(h)(4)). This AC calls for an additional restraint device (dual latching or equivalent) for such equipment. In the case of aircraft certificated against JAR 25, there is currently no published advisory materials but AC 25.785-1A is expected to be adopted by the JAA as an acceptable means of compliance with the identical JAR 25 requirements.
- (b) Where retention of a unit into its stowage compartment is by turn catch, operating the catch should not release more than one unit.
- 5.8. Where catering trolleys have the facility for the collection of waste, they shall be designed and constructed to provide a standard of fire containment acceptable to the DCA. Demonstrated compliance with JAR 25.853(d), BCAR or FAR as applicable will be accepted by the DCA as meeting the fire containment requirement.
- 5.9. Where the basis of type certification of the aircraft requires the provision of means of trolley restraint in the passenger cabin capable of withstanding the loads associated with the flight cases, the trolleys shall be provided with attachment means compatible with the anchorage points provided in the aircraft. Such a method of restraint should be engineered so that it can be used by one person and so that its use will be likely to occur by virtue of its simplicity of operation.
- 5.10. The trolleys must also embody a brake system if they are to be removed from stowage in flight in the absence of evidence justifying an equivalent minimum breaking force then the braking mechanism must be qualified by loading the trolley to its maximum loaded weight and ensuring that the breaking mechanism holds the trolley on an incline plane of 7.5°.
- 5.11. Trolleys shall carry the following placarded instructions :-
- (a) that they must be stored and secured during taxi, take-off, turbulent weather and landing
- (b) either
- (i) that when removed from their stowage they must not be left unattended, or
- (ii) (for trolleys to be used in aircraft subject to paragraph 5.9 of this Notice) that when removed from their stowage, they must not be left unattended unless secured to an attachment point.

- (c) that the gross weight of the unit, or the combined gross weight of the unit and any other galley insert when stowed together, must not exceed the placarded maximum content weight of the compartment where stowed.
- 5.12 The installation of all galley equipment shall be such that the size, weight, and means of restraint are compatible with the stowage facility provided, and that under design loads the item will not deform in such a manner so as to free itself from the means of restraint.
- 5.13 Account must be taken of the individual and total electrical power demand of galley equipment and an electrical load analysis must be included in design documentation.

6. Cancellation

This Notice cancels Airworthiness Notice No. 47 Issue 1 dated 1 April 1987 which should be destroyed.

DIRECTOR GENERAL
DEPARTMENT OF CIVIL AVIATION
MALAYSIA