

Issued 1990-09
Reaffirmed 2000-03
Cancelled 2005-02

Superseding ARP4171

Safety Considerations of Food and Beverage Service Carts

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1. SCOPE:

1.1 Food and beverage service carts referenced herein include:

- a. Items of food or beverage service equipment not permanently attached or made a part of the aircraft structure
- b. Components of such carts that are nonstationary parts thereof
- c. Specific associated equipment and systems affecting the operation of such carts

1.2 This Aerospace Recommended Practice does not fully address:

- a. Design details that provide extended service life and continued airworthiness since these are a function of: (1) total galley and food/beverage system design, (2) human factors engineering desired by individual galley operators, (3) techniques of care in servicing, and (4) maintenance philosophy. However, references to these considerations are included as appropriate.
- b. Requirements that are covered by Federal Aviation Regulations (FARs), pertinent U.S. Public Health regulations, or design details which should be covered by galley operator/airplane manufacturer detailed specifications for subject equipment.

1.3 Basic airframe crash load requirements are defined as the structural design criteria applied by the aircraft designer in accordance with specifications and FARs to the basic airframe as well as to galleys and associated equipment.

2. PURPOSE:

This Aerospace Recommended Practice provides guidance criteria regarding safety considerations for design to attain safety for cabin personnel of transport aircraft in operating food and beverage service carts and to minimize hazards to passengers exposed to such operations, including:

- a. Use of food and beverage service carts
- b. Restraint of carts under all operating conditions
- c. Avoiding malfunctions of, or defects in, food and beverage service carts or associated equipment

3. DETAIL RECOMMENDATIONS:

3.1 General:

3.1.1 The following reference list provides additional recommendations as applicable:

ARP503D	Emergency Evacuation Illumination
ARP577B	Emergency Placarding - Internal and External
ARP712A	Galley Lighting
ARP767A	Impact Protective Design of Occupant Environment - Transport Aircraft
ARP695C	Galley Installations
AS1426	Standard Galley System Specification

3.1.2 Consideration shall be given to the possible detrimental effects of wear and rough handling, structural integrity, fire containment capability, and continued airworthiness over extended period of service.

3.1.3 Construction shall facilitate maintenance of food and beverage service carts to provide sanitary conditions.

3.1.4 Restraint devices and latches of the cart shall not jam or release while exposed to airplane vibrations.

3.2 Structural Design Requirements:

3.2.1 Strength requirements at least equal the basic airframe crash load requirements (see 1.3).

3.2.2 The basic cart structure shall consist of the following components:

- a. The base assembly, including brake system
- b. The body structure, including doors
- c. The worktop
- d. Tray/drawer supports