



AEROSPACE RECOMMENDED PRACTICE

ARP8058™

REV. A

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Superseding ARP8058

Thermal Design and Performance of Airplane In-Flight Food Storage Carts

RATIONALE

Revision includes alternatives to dry ice and heat source, as well as dimensional corrections for air-through cart inlets. The design of the in-flight food storage (galley) cart and its interface with the airplane galley cooling system is important for maintaining the thermal environment necessary for keeping food and beverages in a safe and high-quality condition. This document provides design guidance, performance criteria, and test methods to ensure that the galley cart exhibits the characteristics necessary to comply with this thermal requirement.

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1. SCOPE

This SAE Aerospace Recommended Practice (ARP) provides design guidance and a method for testing thermal performance of airplane in-flight food storage carts. It is noted that thermal performance criteria is not part of AS8056.

1.1 Purpose

The objective of airplane galley refrigeration systems is to maintain food at temperatures at which harmful bacterial growth is reduced to acceptable levels. National health safety regulations that once allowed food to be stored at 45 °F (7.2 °C) have been improved and now call for food storage at temperatures below 39.2 °F (4.0 °C) (Europe) and 41 °F (5 °C) (USA). Airplane in-flight food storage carts are a critical part of the overall galley refrigeration system; therefore, assuring that a cart's thermal characteristics support this goal is essential. The requirements prescribed herein are directed toward this goal.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

ARP695 Galley System Design and Installation Criteria

AS1426 Minimum Performance Standards for Galleys in Transport Category Airplanes

AS8056 Minimum Design and Performance of Airplane Galley In-Flight Carts, Containers, and Associated Components

2.2 Definitions

CART: A movable enclosure on wheels designed for the purpose of transporting and storing various items used for cabin service activities. A cart is maneuvered inside the cabin.

INTERFACE: The fit and functional relationships of the cart with the galley or other structure (e.g., ducts).

INTERFACE CONTROL DRAWING (ICD): An engineering drawing created for the purpose of communicating interface information.

TROLLEY: The word "trolley" is synonymous with "cart."

2.3 Mandating and Recommending Phrases

The word "shall" indicates a mandatory criterion.

The word "should" indicates a criterion for which an alternative, including noncompliance, may be applied if it is documented and justified.