



AEROSPACE RECOMMENDED PRACTICE

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ARP 1469

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CANCELLED

RESTRAINT DEVICE FOR INFANTS

1/95

1. PURPOSE

This Aerospace Recommended Practice (ARP) establishes guidelines for the performance of restraint systems, applicable for use in civil transport aircraft, for recumbent position infants weighing up to 20 lb (9.1 kg).

2. INTRODUCTION

The restraint device described in this ARP is intended to be used by infants weighing up to 20 lb (9.1 kg) (and unable to sit up) to provide improved protection during landings and takeoffs, turbulence, and survivable impacts. The device will be used in a not otherwise occupied adult passenger seat in civil transport aircraft, and be held to the seat by the adult seat belt or attachment.

3. DYNAMIC IMPACT PROTECTION

The restraint device, when occupied by an infant in a civil transport passenger seat with folding back, shall be capable of providing impact protection during an impact which produces a 44 ft/sec. (13.4 m/sec.) velocity change with g levels not exceeding the range specified in Fig. 1, with the deceleration vector at any angle within a forward 45° cone of the longitudinal axis of the aircraft. The infant shall be restrained within the system; the system shall show no separation of components or joints; no portion of any belt restraint system shall release; the infant shall be protected against compression between any parts of the restraint device and/or the passenger seat back.

4. PROTECTION AGAINST TURBULENT FLIGHT CONDITIONS

To provide protection against turbulence encountered in normal flight, the restraint device, installed in a civil transport passenger seat with folding back, shall retain the infant in a normal position throughout two cycles of complete inversion (roll-over upside down and remain in place).

5. RESTRAINT DEVICE RELEASE

- 5.1 Operation of the restraint device and its release shall be obvious. The force required to release the restraint device shall not exceed 14 lb (6.4 kg) while a horizontal load of 45 lb (20 kg) is being applied to the system. It shall be possible to release the device with the aircraft in an inverted position.

The mechanism by which the child is released either from the unit or the seat, shall be accessible, and visible under emergency light conditions.

6. INSTALLATION

Each infant restraint device shall be capable of being properly installed in a civil air transport passenger seat, with folding back, using only the standard adult lap belt assembly which is provided with the adult seat.

Additional attachments to the seat, seat cushion, seat back, or to the aircraft shall not be necessary.

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7. BODY CONTACT SURFACES

When the primary reaction of the impact load is provided by a surface supporting the infant's back, that surface shall have a continuous area of at least 85 sq. in.

When the primary reaction to the impact crash load is provided by a surface supporting the front of the infant's torso, that surface shall have a continuous area of at least 48 sq. in., with a minimum bowing of at least 6 in. (152.4 mm).

Each restraint device shall provide a surface for head support and for limiting head and neck rotation relative to the body during an impact deceleration.

Any surface which can be contacted by the head or body of the infant shall be capable of distributing the impact load and absorbing impact energy to prevent localized injuries.

There shall be no sharp edges which might puncture a slide/raft or be an injury hazard.

8. LABELING

Each infant seating system shall have a label permanently affixed to it. The label shall contain the following information in the English language in letters and numerals not less than 3/32-in. (2.38-mm) high; the label shall contain the following:

- a) make, model
- b) manufacturer's name, location
- c) date of manufacture
- d) installation instructions
- e) weight capacity
- f) in addition the following label must state this device is in compliance with ARP 765 unless superseded by FAR or TSO.

9. VISIBILITY

The mechanism for releasing the infant from the unit shall be readily visible under emergency lighting conditions utilizing color and/or independent lighting technique.

10. SANITATION

The device shall be easily cleanable for sanitary reuse.

11. FLAMMABILITY

Flammability shall be no less than flame resistance of seat to which it is attached.