

10A TECHNICAL UNIT

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**Advisory** 

Administration

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Subject:

USE OF CHILD/INFANT SEATS

IN AIRCRAFT

Date: 2/26/85

Initiated by: AWS-120

AC No: 91-62

Change:

RELATED FEDERAL AVIATION REGULATIONS (FAR) SECTIONS. Sections 21.183, 21.305, 23.785(b), 25.785(b), 29.785(b), 91.14, 91.27, 91.33, 121.311, 121.571, 121.589, 125.211, 127.109, and 135.117 (CFR Title 14).

## BACKGROUND.

a. Establishing the Need. A Federal Aviation Administration (FAA) Task Force on Child Restraint was convened in February 1979 to evaluate child restraint device use aboard aircraft and to explore the options for allowing child restraint devices in aircraft. Based on work previously done by the Civil Aeromedical Institute and the Flight Standards National Field Office in the FAA and the National Highway Traffic Safety Administration (NHTSA) of the Department of Transportation, the Task Force submitted a recommendation to the FAA Administrator on June 1, 1979; the recommendation indicated that the most suitable manner of allowing child restraint devices aboard aircraft would be to adopt the Federal Motor Vehicle Safety Standard (FMVSS) No. 213, Child Restraint Systems, with additional provisions for the aircraft environment.

## b. The Aircraft Environment.

- (1) In most nontransport category aircraft, there are small cabins; passenger seats with safety belts, shoulder harnesses, and arm rests; a need to evacuate entire aircraft rapidly in emergencies; aft, forward, and side facing passenger seats; passenger seats with backs that fold over; occasionally a single entrance/exit door; and up and down loads during inflight turbulence/qusts.
- (2) In transport category aircraft, there are passenger seats with fold-over backs, safety belts, and arm rests (some may be folded up out of the way); a need to evacuate entire aircraft rapidly in emergencies; aft, forward, and side facing passenger seats; and up and down loads during inflight turbulence/gusts.

<sup>1.</sup> PURPOSE. This advisory circular provides information to assist the public in the proper use of child/infant seats aboard aircraft and provides precautions so all passengers are able to evacuate aircraft rapidly during emergencies.

c. <u>Performance Standards</u>. Following development of the performance standards that account for the aircraft environment and after providing public notice, the FAA issued the standards in Technical Standard Order (TSO) C100, Child Restraint Systems, on May 28, 1982. The FAA issued the TSO for child restraint systems, i.e., child/infant seats, to provide for use of child/infant seats that would not be hazards to children or other passengers during emergencies in the air transportation environment.

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# 4. DISCUSSION.

- a. Child/Infant Seats Are Optional. The FAA does not require the use of child/infant seats for small children aboard aircraft; however, at the air travelers' expense, they are given the option to use child/infant seats in accordance with paragraph 4b during all phases of an airline's flight operations. To exercise this option in the discretion of the airline, an air traveler may be obliged to purchase a ticket for the additional passenger seat used.
- b. Acceptable Child/Infant Seats. The traveler should check with the airline to ensure that it allows child/infant seats to be used. Seats considered acceptable by the FAA are those either certified for use in motor vehicles and aircraft under the amended FMVSS No. 213 after February 26, 1985, or certified for use in motor vehicles under the previous Standard 213 between January 1, 1981, and February 26, 1985.
- (1) Child/infant seats manufactured between January 1, 1981, and February 26, 1985, should have the following label required by FMVSS No. 213 to be considered acceptable: "This child restraint system conforms to all applicable Federal motor vehicle safety standards." Some of these seats may have labels indicating compliance with TSO-Cl00. (EXCEPTION: Vest- and harness-type child restraints manufactured between these dates are not acceptable.)
- (2) Child/infant seats manufactured after February 26, 1985, will have two labels when approved for use in aircraft: (i) "This child restraint system conforms to all applicable Federal motor vehicle safety standards;" and (ii) "THIS RESTRAINT IS CERTIFIED FOR USE IN MOTOR VEHICLES AND AIRCRAFT," in red lettering.

#### 5. PRECAUTIONS FOR ALL OPERATIONS.

- a. The owner of an acceptable child/infant seat should maintain and install the seat in accordance with the maintenance, care, and use instructions provided with each seat.
- b. Instructions are provided with each child/infant seat to assure its proper use. All straps, especially shoulder straps, should always be used per the instructions, which should always be available and followed carefully. If all instructions are not followed for proper use of the child/infant seat, the device will at best provide only false security to the user, and at worst, be a hazard to a child/infant and other passengers.

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- c. Since a child/infant seat may be too bulky to be stowed as carry-on luggage under a passenger seat, in an overhead compartment, or in any other area designated by a flight attendant, the child/infant seat must be secured to a passenger seat at all times during flight, even when it is unoccupied by a child/infant; no other passenger may occupy that same seat.
- d. If a passenger seat is not available for an infant less than 2 years old, only the infant may be held by an adult. The infant should be taken out of the child/infant seat and held in the adult's lap. An infant in a child/infant seat held by an adult is more hazardous to other passengers.
- e. During takeoff or landing, the child/infant seat should not be occupied if placed in a sideward facing passenger seat.

# 6. PRECAUTIONS (GENERAL AVIATION OPERATIONS).

- a. Weight. The weight of the child/infant seat should be considered in the weight and balance of the aircraft.
- b. <u>Location</u>. Regardless of where the child/infant seat is placed in a small aircraft cabin, the seat may present a hazard due to the possibility of it hindering evacuation in an emergency; however, the following precautions should improve evacuation capabilities:
- (1) The child/infant seat should be located in a rear passenger seat when available. Although the child/infant seat may be located anywhere, a rear seat is the preferred location when another adult is also a passenger.
- (2) The child/infant seat should not be located near an entry door or emergency exit.
- (3) The child/infant seat should not interfere with the full travel of the control wheel/yoke. Prior to takeoff, controls should be checked for movement in all directions with the occupied child/infant seat in place. A special emphasis item may be placed in the takeoff and landing checklists to ensure full travel of controls before takeoff and sufficient freedom of controls for landing. After a child/infant seat is secured in a safe position, care should be exercised if the seat is moved in flight.
- c. Shoulder Harnesses. The child/infant seat should be attached using only the lap belt per manufacturer's instructions. Aircraft shoulder harnesses may be used to stabilize the child/infant seat; shoulder harnesses should not be used to restrain the child/infant.

## 7. PRECAUTIONS (AIR CARRIER, AIR TAXI, AND COMMERCIAL OPERATIONS).

a. Weight. The weight of the child/infant seat is considered to be negligible in the normal situation where only a few passenger seats are occupied with children in restraint devices.

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## b. Location.

- (1) The child/infant seat should be located in a row that is neither the same row of an emergency exit nor the row forward or aft of an emergency exit. A window passenger seat is the preferred location; however, other locations may be acceptable provided only responsible persons occupy seats next to the child/infant.
- (2) The child/infant seat may also be located in a middle row of seats in a two-aisle aircraft but should not be located in an aisle seat. Again, an aisle seat may be acceptable provided all other seats in that row are occupied by persons responsible for the child/infant.
- (3) More child/infant seats per row are allowed if the children are from the same family or traveling group.
- (4) The child/infant seat should not block access ways and passageways to any emergency exit.
- (5) The child/infant seat should not be allowed in the front seats of an aircraft used in air transportation.
- c. <u>Safety Belt Signs</u>. The child/infant should occupy its safety seat when the crew turns on the "Fasten Safety Pelt" signs.
- d. Emergency Evacuation. During an actual evacuation, any child/infant seat should remain attached to the passenger seat. Only the child/infant should be removed from the aircraft.

Joseph A. Pontecorvo

Deputy Director of Airworthiness

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US Department of Transportation

Federal Aviation Administration

800 Independence Ave., S.W. Washington, D.C. 20591

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