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Part III

Department of Transportation

Federal Aviation Administration
National Highway Traffic Safety Administration

14 CFR Part 91 et al.
49 CFR Part 571
Child Restraint Systems; Proposed Rules

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 91, 121, 125, and 135

[Docket No. 28229; Notice No. 95–7]

RIN 2120–AF52

Child Restraint Systems

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice proposes to withdraw FAA approval for the use of booster seats and vest- and harness-type child restraint systems in aircraft during takeoff, landing, and movement on the surface. In addition, this notice emphasizes the existing prohibition in all aircraft against the use of lap held child restraint systems (including belly belts). The FAA believes that, during an aircraft crash, the banned devices may put children in a potentially worse situation than the allowable alternatives. This notice does not affect use of other types of approved child restraint devices. The FAA will continue to analyze methods to improve the alternatives to the proposed banned devices.

DATES: Comments must be received on or before July 10, 1995.

ADDRESSES: Comments on this notice should be mailed, in triplicate, to: Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket (AGC–200), Docket No. 28229, 800 Independence Avenue SW., Washington, DC 20591. Comments delivered must be marked Docket No. 28229. Comments may be examined in room 915G weekdays between 8:30 a.m. and 5 p.m., except on Federal holidays.

FOR FURTHER INFORMATION CONTACT: Donell Pollard, (AFS–203), Air Transportation Division, Flight Standards Service, Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; Telephone (202) 267–3735.

SUPPLEMENTARY INFORMATION:

Background

The FAA is concerned about the safety of children who use certain forms of child restraint systems aboard aircraft. In 1992, the FAA set forth in §§ 91.107(a), 121.311(b), 125.211(b), and 135.128(a) the child restraint systems acceptable for use in aircraft by listing labeling requirements and certain use requirements. Since that time the FAA has supplemented the rule with advisory material and with a public information leaflet titled "Child/Infant Safety Seats Recommended for Use in Aircraft."

Under present regulations a child who has not reached his or her second birthday (infant) is not required to have a separate seat aboard an aircraft. This means that the person accompanying an infant may choose to hold the infant during flight.

If the accompanying adult wishes to put the infant in a child restraint system on a passenger seat, the airline may require the adult to purchase a separate ticket for the infant. Whether or not the airline requires the purchase of a ticket for the infant, a separate passenger seat is necessary if a child restraint is to be used (14 CFR §§ 121.311(c), 125.211(c), and 135.128(b)).

The provisions of §§ 91.107, 121.311, 125.211, and 135.128 identify those child restraints that are approved for use aboard aircraft. These child restraint provisions also apply whenever a child restraint is used for a child 2 years old or older who is required to have a separate seat on the aircraft. A child 2 years old or older must either be properly secured in an approved child restraint or properly secured with a safety belt in a passenger seat.

The FAA's 1992 determination as to which child restraint systems would be approved for use aboard aircraft was based on many years of work by both the FAA and the National Highway Traffic Safety Administration (NHTSA). In the 1970's, NHTSA proposed dynamic testing of child restraint systems for use in automobiles. In the mid 1980's, the FAA and NHTSA undertook an effort to develop a common approach to the approval of child restraints. Federal Motor Vehicle Safety Standards (FMVSS) No. 213 (49 CFR 571.213) was amended to provide criteria for the certification of child restraints that were appropriate for both aircraft and automobiles.

FMVSS No. 213, as revised, is the current U.S. standard, and has allowed hundreds of models of seats to be approved, including booster-type child restraint systems ("booster seats"). The current FAA child restraint rules do not specifically refer to FMVSS No. 213. However, FMVSS No. 213 is the basis for the labels required under the FAA rules.

The current FAA rules on child restraint systems permit the use of child restraint systems only if they bear a proper label(s), meet certain use requirements, and meet adult accompaniment requirements.

Approved labels fall into three categories as follows:

1. Seats manufactured to U.S. standards between January 1, 1981, and February 25, 1985, must bear a label that states "This child restraint system conforms to all applicable Federal motor vehicle safety standards." However, vest- and harness-type child restraint systems manufactured before February 26, 1985, are not approved for use on aircraft even if they bear this label.

2. Seats manufactured to U.S. standards on or after February 26, 1985, must bear the following two labels:

(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.

3. Seats that are not manufactured to approved U.S. standards must bear either a label showing approval of a foreign government or a label showing that the seats were manufactured under the standards of the United Nations.

The use requirements for child restraint systems are as follows:

1. The restraint system must be properly secured to an approved forward-facing seat or berth;

2. The child must be properly secured in the restraint system and must not exceed the specified weight limit for the restraint system; and

3. The restraint system must bear that appropriate label(s).

The adult accompaniment provisions for child restraint systems require that the child be accompanied by a parent, guardian, or attendant designated by the child's parent or guardian to attend to the safety of the child during the flight.

While the current rule language disallows vest- and harness-type child restraint systems manufactured before February 26, 1985, some of these systems manufactured after that date meet U.S., foreign government, or United Nations requirements.

Need for Amendment

As discussed above, the present FAA rules on child restraint systems are based primarily on U.S. standards. However, the FAA now has determined that some child restraint systems that work well in automobiles may not be safe for use in aircraft. The FAA has reached this conclusion based in part on recent studies by FAA's Civil Aeromedical Institute (CAMI). A copy of CAMI's final report, as well as a follow-up report that clarifies certain issues in the CAMI report, is included in the docket. The CAMI studies were conducted to evaluate whether the FAA regulations regarding crashworthiness requirements for adult passenger seats and the standards applicable to child restraint devices were consistent, to respond to questions from the Air

Transport Association concerning which child restraint systems were approved for aircraft, and to respond to comments received from child restraint manufacturers, private testing organizations, the National Transportation Safety Board, foreign regulatory organizations, and consumer activists at the January 1993, session of the Society of Automotive Engineers (SAE) ad hoc committee on child restraints. Some of the most serious issues identified by CAMI concern child restraints commonly referred to as shield-type booster seats, vest- and harness-type child restraint systems, and belly belts.

FMVSS No. 213 defines a "booster seat" as "either a backless child restraint system or a belt-positioning seat". FMVSS No. 213 defines a "backless child restraint system" as "a child restraint, other than a belt-positioning seat, that consists of a seating platform that does not extend up to provide a cushion for the child's back or head and has a structural element designed to restrain forward motion of the child's torso in a forward impact" (hereinafter referred to as "shield-type"). FMVSS No. 213 defines a "belt-positioning seat" as "a child restraint system that positions a child on a vehicle seat to improve the fit of a vehicle Type 2 belt system on the child and that lacks any component, such as a belt system or a structural element, designed to restrain forward movement of the child's torso in a forward impact" (49 CFR 571.213(S4)). NHTSA and the FAA are working together to develop additional standards to allow an improved assessment of the performance of child restraint systems in the aircraft environment.

Booster seats are generally designed for children who are 3 to 8 years old and weigh 30 to 60 pounds. As such, the children who weigh 40 pounds and over can be adequately protected in an aircraft seat restrained by the safety belt, and the children who weigh between 30 pounds (the threshold weight for a booster seat) and 40 pounds can be restrained in a forward facing child restraint system. The "shield-type" booster seat is secured to the vehicle with the passenger safety belt and the shield provides crash protection for the upper body of the child. The "belt-positioning" booster seat is secured to the vehicle, along with the child, with the passenger seat and shoulder belt system of the vehicle; the shoulder portion of the best provides crash protection for the upper body of the child.

Vest- and harness-type restraint devices are usually designed for children in the 25 to 50 pound range. The harness-type device usually consists of a torso harness with padded, adjustable straps over the shoulders and around the pelvis and, in some designs, it contains a crotch strap. The harness contains a means (e.g. a webbing attached to a metal back plate) for the passenger safety belt to attach the harness to the aircraft seat.

The belly belt included in the CAMI study has a short loop of webbing with standard buckle hardware installed on the ends. This belt is designed to be buckled around the child's abdomen and is secured to an adult's abdomen with the adult's safety belt by routing the safety belt through a small loop of webbing sewn on the belly belt. The belly belt, as well as other types of lap held child restraint devices, are not permitted to be used under the existing rules.

Under the existing rules, a child restraint system that bears one or more of the specified labels cannot be used unless the restraint system is properly secured to an approved forward-facing seat or berth (see §§ 91.107(a)(3)(iii)(C)(*1*), 121.311(b)(2)(iii)(A), 125.211(b)(2)(iii)(A), and 135.128(a)(2)(iii)(A)). Because lap held child restraint systems are not secured to a forward-facing seat or berth, but instead are secured to the adult, they cannot be used under existing rules. Nonetheless, the FAA has decided that it is important to emphasize this prohibition and, therefore, proposes to add clarifying language to the existing rules.

The CAMI study identified the following concerns with booster seats, vest- and harness-type child restraints, and belly belts:

Booster seats—In the test, the shield-type booster seat, in combination with other factors, contributed to an abdominal pressure measurement higher than in other means of protection.

Vest- and harness-type systems—When tested in an airplane seat, these systems allowed excessive forward body excursion, resulting in the anthropomorphic test dummy sliding off the front of the seat with a high likelihood of the child impacting the back of the row of seats in front of it. Rebound acceleration presents further risk for injury.

Belly belts—In the test, these systems allowed the anthropomorphic test dummy to make severe contact with the back of the seat in the row in front of the test dummy. The child also may be crushed by the forward bending motion of the adult to whom the child is attached.

CAMI research involved dynamic impact tests with a variety of certified child restraints installed in transport airplane passenger seats at the 16g peak loads required in 14 CFR § 25.562(b)(2). Some of the tests of child restraint systems were configured to represent a typical multi-row seat installation and included testing the effects of the occupant impact against the backs of seats. The tests investigated transport airplane passenger seat compatibility with child restraints and measured three performance factors: adaptability, structural response, and occupant protection.

Shield-Type Booster Seats

The FAA has determined that some child restraint systems that work well in automobiles may not be as safe for use in aircraft during takeoff, landing, and movement on the surface as other available means of protection. Unlike in an automobile, where seat backs are fixed and rigid and present a barrier to rear-generated forces, airline seats are generally not rigid and thus may breakover under their own inertia or when struck by a passenger. This represents a potential source of pressure and force to the occupant of a backless child restraint device.

The CAMI research found that in laboratory impact tests using representative airplane seats found in a transport airplane, shield-type booster seats may offer less protection from aft row occupant impact forces on the seat back than other available means of protection. Aft row occupant impact forces transmitted through the passenger seat back in which the child restraint is installed are an important consideration, particularly in seats with breakover seat backs. The movement of the aft row adult passenger may expose the child to an impact from behind and to being crushed between the airplane seat back and the booster seat shield. In addition, when this situation was studied by CAMI, increased abdominal loading of the child test dummy was discovered when the researchers reviewed the test data on an anthropomorphic dummy representing a 3-year old child weighing 33.3 pounds. The researchers then used a smaller "CAMIX" anthropomorphic dummy weighing 27.2 pounds, representing a 2-year old child, that was instrumented to measure abdominal loads. These measurements showed an increase in abdominal loads over those when the test dummy was protected by the aircraft seat's lap belt. The abdominal loading measured by this dummy in

shield-type booster seats was not caused by the dummy's impact against the shield alone, but by the force of the seat back and the aft row passenger as they pressed the dummy into the shield. Therefore, although CAMI used a test dummy weighing less than the range of children recommended by the manufacturer for its booster seat, the FAA believes that the dynamics would be the same for a child within the weight limits specified by the manufacturer.

The FAA believes that shield-type booster seats, which may contribute to higher abdominal loading, might put children in a potentially worse situation than the alternatives permitted in the FAA regulations. In the study, the FAA researchers at CAMI compared the abdominal load impacts on the CAMIX anthropomorphic test dummy when it was placed in a shield-type booster seat and when it was placed in a lap belt in a typical airplane passenger seat. When an adult-size test dummy aft of the CAMIX dummy and with a breakover seat back, the abdominal load was 37.6 pounds per square inch (psi) when the dummy was restrained by the lap belt compared to 59.5 psi for the dummy when it was in a shield-type booster seat.

The CAMI researchers also found that the abdominal loads on the CAMIX test dummy with a locked seat back were higher in the shield-type booster seat (in the 19.8 to 20.8 psi range) than in a typical airplane lap belt with a locked seat back (9.5 psi).

The FAA recognizes that the booster seats are designed for children in the 30 to 60 pound weight range. Although the CAMIX dummy is 27.2 pounds, it was the only test dummy available that was equipped to measure abdominal loads. However, the FAA believes that abdominal loads for children who are in the 30 to 60 pound weight range and who are in shield-type booster seats would similarly exceed the abdominal loads that those children would experience in lap belts in representative aircraft seats in a worst case survivable aircraft crash.

The FAA is proposing to ban shield-type booster seats in aircraft during takeoff, landing, and movement on the surface because of the concern about the increase in abdominal pressure. The FAA believes that there is a relationship between abdominal loading and injury. The agency notes, however, that no accepted injury criteria have been developed that would permit the FAA to predict precisely the severity or type of abdominal injury. In view of the absence of criteria for assessing the relationship between differences in measured levels of abdominal loading and the resulting risk of injury, the FAA invites comments, including statistical data, on the value of abdominal loading, by itself, as a predictor of injury.

The FAA recognizes that differences in abdominal loading are but one measure of the overall safety performance of child restraint devices. Among the others are the degree of extension of the spine and the head injury protection criteria (HIC) developed by NHTSA to measure head injury risk in motor vehicle crashes. Accordingly, the agency invites comments on the overall safety performance of shield-type booster seats compared to that of other available means of protection.

A separate seat or berth must be available in order to use a shield-type booster seat. If the FAA adopts this proposal to ban the use of shield-type booster seats, children over age 2 will have to use the passenger seat lap belt or some other type of approved child restraint system. The accompanying adult or the airline may provide the alternative approved child restraint system, but neither is required to do so. The FAA believes that children 2 years old or older will be safer in their own passenger seat restrained by a lap belt or in allowable child restraint systems than they would have been in the shield-type booster seats.

Under existing regulations, children under age 2 are not required to use a child restraint system or lap belt. Those children are permitted to be held on an adult's lap. By proposing to ban the use of shield-type booster seats, the FAA does not mean to encourage the practice of adults holding children under age 2 on their laps. Again, the FAA believes that a child who weighs enough to use a booster seat would be safer in a passenger seat lap belt or other approved type of child restraint system.

The FAA invites comments on the issue of whether the proposed ban would induce more parents to place more children on their laps during flight. The FAA also invites comments on the relative safety of placing children in shield-type booster seats versus putting children on laps. Although the FAA does not encourage the practice of holding a child under age 2 in an adult's lap, in 1992 the FAA decided not to mandate that children under age 2 use some type of restraint system (57 FR 42662). The FAA concluded that if children under age 2 were required to be in approved restraint systems and if the affected operators used such a requirement to charge for the transportation of children under age 2, more fatalities and injuries would occur. The FAA determined that if adults were charged for the transportation of infants, some adults would decide to drive in automobiles to their destinations rather than fly. Noting that the accident rate on the roads is higher than the accident rate in commercial air transportation, the FAA concluded that more deaths and injuries would occur for children in automobile accidents than would be avoided in aviation crashes if the FAA mandated the use of child restraint systems for children under age 2 on aircraft. The FAA invites comments on its previous decision not to mandate child restraint systems. Recently, Congress instructed the FAA to restudy the net safety impact that would result if the agency were to mandate restraint devices for infants. That study will be submitted to Congress shortly and will be added to this rulemaking docket.

Vest- and Harness-Type Child Restraint Systems

Because of the location of the safety belt anchors for an airplane seat, harness-type child restraints tested at CAMI did not provide adequate restraint to prevent a serious impact with a seat back in front of the child occupant and a rebound impact with the occupant's own seat.

The FAA is aware that there may be an issue as to whether a parent who has been told that these devices are banned will choose not to buy a ticket for a separate seat for a child under 2, and, instead, hold the child in the lap. A parent who has purchased a ticket for the use of the vest- and harness-type device also has the option of using the passenger seat lap belt or using an approved child restraint device. The FAA believes that a parent who has purchased a ticket for a child, upon being told that the child could not use a vest- and harness-type device, would elect to use the passenger seat lap belt or an approved child restraint device. Others may believe that the parent may choose to hold the child on his or her lap. However, as noted above, the FAA believes that a child would be safer in a passenger seat lap belt or other approved type of child restraint system. The FAA also believes that a parent of a child under 2, who is already predisposed to buy a ticket for a separate airplane seat for use with a vest- and harness-type device and who has received education on the effectiveness of the allowable alternatives in advance of purchasing tickets, would purchase a ticket for a separate seat in order to use an approved and recommended child restraint device. The FAA specifically invites comments on this issue. Based

on the CAMI research and further analysis, the FAA believes that, in an aircraft crash, vest- and harness-type child restraint systems put children in a potentially worse situation than the alternatives permitted in the FAA regulations.

In an aircraft crash, these systems allow unacceptable levels of body excursion and/or submarining (the occupant's lower body slides underneath the restraint system). The FAA believes that if a child under 2 falls in the weight use limits (25–50 pounds) recommended by vest and harness manufacturers, the child would be safer in a passenger seat restrained by a lap belt than in a vest- and harness-type device if no other approved device were available.

However, the FAA believes that a child weighing between 25 and 40 pounds, a weight range consistent with harness use, would be better protected in a forward facing child restraint device than in a lap belt. The FAA notes that the CAMI study demonstrated that six of the eight forward facing child restraint systems it tested did not provide a desirable level of head injury protection (i.e., head injury criterion (HIC) less than 1,000) in the worst-case simulated survivable airplane crash. Nonetheless, based on an analysis of CAMI's testing of the harness, the lap belt, and forward facing child restraint devices, the FAA finds that forward facing child restraint devices will provide higher levels of protection than lap belts and harnesses for children between 25 and 40 pounds. In addition, CAMI testing revealed that lap belts provide a superior level of protection for children weighing more than 40 pounds to that provided by harnesses and booster seats. Consequently, the FAA recommends the use of forward facing child restraint devices for children weighing between 25 pounds (the threshold weight for a harness device) and 40 pounds; the FAA further recommends the use of lap belts for children weighting more than 40 pounds. The agency is continuing to analyze the relative protection afforded by forward facing child restraint devices and is aggressively examining methods by which the efficacy of such devices can meet desired testing levels.

Belt-Positioning Booster Seats

Belt-positioning booster seats require shoulder harnesses, and transport airplanes do not have passenger shoulder harnesses. In addition, in other aircraft that may have shoulder harnesses for passengers, the FAA believes that during an aircraft crash there is a likelihood that a belt-positioning booster seat will shift from the passenger seat, causing a degradation in the performance of that child restraint system, thus resulting in injury. NHTSA recently issued an amendment (59 FR 37164; July 21, 1994) to its standard requiring that belt-positioning booster seats be labeled with a statement that they are not certified for use on aircraft. Based on further analysis, the FAA is proposing to ban all use of belt-positioning booster seats on aircraft.

It should be noted that, while booster seats and vest- and harness-type child restraints may be appropriate for use in automobiles, further analysis has indicated that their design may render them unsuitable for use in aircraft during takeoff, landing, and movement on the surface. The aircraft environment differs from the automobile environment in ways that are significant to this rulemaking and that add justification for the proposal of this notice. First, many booster seats require the use of a shoulder harness for proper restraint; however, shoulder harnesses are usually not available in transport airplane passenger seats. Second, the action of the shoulder harness inertial reels in automobiles is different than those in aircraft. Third, automobiles employ a rigid seat back system that maximizes the effectiveness of these child restraint systems, but aircraft usually do not have rigid seatbacks. Further, as a practical matter, a uniform application of this proposal to all aircraft is desirable, regardless of whether the aircraft has breakover seats.

Other Issues

The CAMI study identified other types of child restraint systems that did not provide the level of protection in a worst-case simulated survivable airplane crash that the FAA anticipated they would provide when the child restraint rule was originally promulgated. As previously noted, six of the eight forward facing child restraint systems in the CAMI study did not provide a level of head injury protection that is desirable in the worst case simulated survivable airplane crash. Because, unlike shield-type booster seats, forward facing child restraint devices have backs, the FAA has determined that forward facing child restraint devices are likely to provide a higher level of protection than shield-type booster seats at crash levels below the worst case survivable airplane crash.

The FAA notes that Roger N. Hardy of the Cranfield Impact Centre tested forward facing child restraint devices on behalf of the British Civil Aviation Authority (BCAA). In his report, entitled *The Restraint of Infants and Young Children in Aircraft* (BCAA Paper 92929, December 12, 1992), Dr. Hardy concluded that while forward facing child restraint devices did not provide the optimal level of protection, they provided a higher level of protection relative to either the use of a belly belt or the holding of children on the laps of adults without the use of a belly belt.

The FAA believes that forward facing child restraint devices are superior to vest- and harness-type devices, booster seats, belly belts, and the holding of children on laps. Consequently, the FAA recommends the use of forward facing seats for children weighing between 20 and 40 pounds. (For children who weigh up to 20 pounds, and for children weighing over 40 pounds, the FAA recommends the use of aft facing child restraint devices and passenger lap belts, respectively.) While the FAA acknowledges that some forward facing child restraint devices may not presently provide a desired level of protection in a worst case survivable aircraft crash, it is examining means by which these seats will perform at optimal levels in such crashes. In addition, the agency is working with NHTSA to develop appropriate modifications to FMVSS No. 213 for future seat design approvals for airplane seats.

The FAA has issued directives to its inspectors that emphasize the existing prohibition on the use of devices, e.g. belly belts, that are not designed to be secured to forward-facing seats or berths. In issuing these statements, the FAA was motivated by its concern that such restraint systems could potentially result in a worse situation for children than the allowable alternatives would provide in the event of an aircraft crash.

The FAA is concerned as to whether the implementation of this rule may induce a significant number of parents to fail to provide child restraint devices for automotive travel to or from airports. Factors to be considered in addressing this issue are the share of the market that booster seats and vest- and harness-type devices comprise, the extent to which state laws require the use of child restraint systems in automobiles, and the availability of child restraint devices from car rental companies. The FAA seeks comments on the risks of children suffering increased injury due to their continued use of shield-type booster seats. The agency asks whether there are specific types of aircraft crashes or other aircraft events in which the measured difference in abdominal loading would have a greater potential for increasing the severity of injury to children.

Comments should include data on the frequency of such crashes or events, if available.

The agency also invites comments on the extent of any risks of children being injured in motor vehicles if parents are discouraged from bringing shield-type booster seats along on their combined air and land trips, and whether parents would in fact be so discouraged. If parents are so discouraged, the booster seat might not be available for motor vehicle use during the land portion of their trips, and parents might not obtain a restraint from another source. In addition, the agency requests additional comments and information on the number of shield-type booster seats currently used by children on aircraft, and how the proposed ban would affect the decisions of parents in selecting and purchasing child restraints.

Regulatory Evaluation Summary

Changes to Federal regulations are required to undergo several economic analyses. First, Executive Order 12866 directs each Federal agency to propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic effect of regulatory changes on small entities. Third, the Office of Management and Budget directs agencies to assess the effect of regulatory changes on international trade. With respect to this notice, the FAA has determined that it: (1) is "a significant regulatory action" as defined in the Executive Order; (2) is significant as defined in the Department of Transportation's Regulatory Policies and Procedures; (3) would not have a significant impact on a substantial number of small entities; and (4) would not constitute a barrier to international trade. The FAA does not believe that this proposal would impose any significant costs on the public. Therefore, a full regulatory analysis, which includes the identification and evaluation of cost-reducing alternatives to this notice, has not been prepared. Instead, the agency has prepared a more concise analysis of this notice that is presented in the following paragraphs.

Costs and Benefits

There would be some compliance costs associated with this notice. This proposed rule will reduce the types of child restraint systems that can be used during ground movement, takeoff, and landings by prohibiting the use of all booster seats and vest- and harness-type child restraint systems during these phases of a flight. The restrictions on the use of these devices would need to be incorporated into flight attendant training and included in flight manuals, and this will impose additional costs on air carriers. For a period of time after the proposed rule becomes effective, there will also be some public education necessary and potential flight delays when flight attendants tell parents who brought prohibited child restraint devices on board the aircraft that the devices are banned for use during takeoff, landing, and movement on the ground. The FAA specifically requests comments on the cost of this notice, however.

The FAA has determined that booster seats and vest- and harness-type devices put children in a potentially worse situation than the alternatives during an aircraft crash. According to the CAMI study, these child restraint systems do not securely hold a child in place in an aircraft crash, and may themselves even cause harm to a child in the event of a crash. These types of accidents, while they rarely happen, usually occur during the takeoff or landing phases of a flight. Thus, prohibiting the use of these child restraint systems during takeoff and landing will enhance the child's safety. Since it is impractical to expect flight attendants to monitor, just prior to takeoff, whether children are out of banned devices, the FAA is prohibiting the use of these devices during movement on the surface also.

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily or disproportionately burdened by Federal regulations. The RFA requires a Regulatory Flexibility Analysis if a proposed rule will have "a significant economic impact on a substantial number of small entities." FAA Order 2100.14A outlines FAA's procedures and criteria for implementing the RFA. Small entities are defined as independently owned and operated small businesses and small not-for-profit organizations. This proposed rule will impose unquantified costs on air carriers. These costs include changing manuals and training flight attendants about the restrictions on the use of certain child restraint devices. Initially, there may be some public education necessary and possible flight delays when flight attendants tell parents or guardians that they may not use certain child restraint devices during ground movement, takeoff, or landing. However, the FAA believes that this proposed rule will not have a significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

This notice would not constitute a barrier to international trade, including the export of American goods and services to foreign countries and the import of foreign goods and services to the United States.

Federalism Implications

The regulations proposed herein would not have substantial direct effects on the states, on the relationship between the national government and that of any state, or on the distribution of power and responsibilities among the various levels of government. The respondents affected by the proposed amendments are private citizens, not state governments. Therefore, in accordance with Executive Order 12612, it is determined that this regulation would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this proposed regulation is a significant regulatory action under Executive Order 12866. This rule is considered significant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). In addition, it is certified that this proposed rule would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects

14 CFR Part 91

Air carriers, Air transportation, Aviation safety, Safety.

14 CFR Part 121

Air carriers, Air transportation, Aviation safety, Common carriers, Safety, Transportation.

14 CFR Part 125

Air carriers, Air transportation, Aviation safety, Safety.

14 CFR Part 135

Air carriers, Air taxi, Air transportation, Aviation safety, Safety.

The Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend parts 91, 121, 125, and 135 of the Federal Aviation Regulations (14 CFR parts 91, 121, 125, and 135) as follows:

PART 91—GENERAL OPERATING AND FLIGHT RULES

1. The authority citation for part 91 continues to read as follows:

Authority: 49 U.S.C. 1301(7), 1303, 1344, 1348, 1352 through 1355, 1401, 1421 through 1431, 1471, 1472, 1502, 1510, 1522, and 2121 through 2125; Articles 12, 29, 31 and 32(a) of the Convention on International Civil Aviation (61 Stat. 1180); 42 U.S.C. 4321 et seq.; E.O. 11514, 35 FR 4247, 3 CFR, 1966–70 Comp., p. 902; 49 U.S.C. 106(g).

2. Section 91.107 is amended by removing the sentence in paragraph (a)(3)(iii)(B)(*1*) that begins with "Vest- * * *", by removing the final "and" in paragraph (a)(3)(iii)(B)(*3*), by revising paragraph (a)(3)(i) and the introductory text of paragraph (a)(3)(iii)(B), and by adding a new paragraph (a)(3)(iii)(B)(*4*) to read as follows:

§ 91.107 Use of safety belts, shoulder harnesses, and child restraint systems.

(a) * * *

(3) * * *

(i) Be held by an adult who is occupying an approved seat or berth, provided that the person being held has not reached his or her second birthday and does not occupy or use any restraining device;

* * * * *

(iii) * * *

(B) Except as provided in paragraph (a)(3)(iii)(B)(*4*) of this section, the approved child restraint system bears one or more labels as follows:

* * * * *

(*4*) Notwithstanding any other provision of this section, booster-type child restraint systems (as defined in Federal Motor Vehicle Safety Standard No. 213 (49 CFR 571.213)), vest- and harness-type child restraint systems, and lap held child restraints are not approved for use in aircraft; and

* * * * *

PART 121—CERTIFICATION AND OPERATIONS: DOMESTIC, FLAG, AND SUPPLEMENTAL AIR CARRIERS, AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT

3. The authority citation for part 121 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1354(a), 1355, 1356, 1357, 1401, 1421–1430, 1472, 1485, and 1502.

4. Section 121.311 is amended by removing the sentence in paragraph (b)(2)(ii)(A) that begins with "Vest- * * *", by removing the final "and" in paragraph (b)(2)(ii)(C), by revising paragraph (b)(1) and the introductory text of paragraph (b)(2)(ii), by adding a new paragraph (b)(2)(ii)(D), and by revising paragraph (c) to read as follows:

§ 121.311 Seats, safety belts, and shoulder harnesses.

* * * * *

(b) * * *

(1) Be held by an adult who is occupying an approved seat or berth, provided the child has not reached his or her second birthday and the child does not occupy or use any restraining device; or

(2) * * *

(ii) Except as provided in paragraph (b)(2)(ii)(D) of this section, the approved child restraint system bears one or more labels as follows:

* * * * *

(D) Notwithstanding any other provisions of this section, booster-type child restraint systems (as defined in Federal Motor Vehicle Standard No. 213 (49 CFR 571.213)), vest- and harness-type child restraint systems, and lap held child restraints are not approved for use in aircraft; and

(c) Except as provided in paragraph (c)(3), the following prohibitions apply to certificate holders:

(1) No certificate holder may permit a child, in an aircraft, to occupy a booster-type child restraint system, a vest-type child restraint system, a harness-type child restraint system, or a lap held child restraint system during take off, landing, and movement on the surface.

(2) Except as required in paragraph (c)(1) of this section, no certificate holder may prohibit a child, if requested by the child's parent, guardian, or designated attendant, from occupying a child restraint system furnished by the child's parent, guardian, or designated attendant provided:

(i) The child holds a ticket for an approved seat or berth or such seat or berth is otherwise made available by the certificate holder for the child's use;

(ii) The requirements of paragraph (b)(2)(i) are met;

(iii) The requirements of (b)(2)(iii) are met; and

(iv) The child restraint system has one or more of the labels described in paragraph (b)(2)(ii)(A) through paragraph (b)(2)(ii)(C).

(3) This section does not prohibit the certificate holder from providing child restraint systems or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.

* * * * *

PART 125—CERTIFICATION AND OPERATIONS: AIRPLANES HAVING A SEATING CAPACITY OF 20 OR MORE PASSENGERS OR A MAXIMUM PAYLOAD CAPACITY OF 6,000 POUNDS OR MORE

5. The authority citation for part 125 continues to read as follows:

Authority: 49 U.S.C. 106(g), 1354, 1421 through 1430 and 1502.

6. Section 125.211 is amended by removing the sentence in paragraph (b)(2)(ii)(A) that begins with "Vest- * * *", by removing the final "and" in paragraph (b)(2)(ii)(C), by revising paragraph (b)(1) and the introductory text of paragraph (b)(2)(ii), by adding a new paragraph (b)(2)(ii)(D), and by revising paragraph (c) to read as follows:

§ 125.211 Seat and safety belts.

* * * * *

(b) * * *

(1) Be held by an adult who is occupying an approved seat or berth, provided the child has not reached his or her second birthday and the child does not occupy or use any restraining device; or

(2) * * *

(ii) Except as provided in paragraph (b)(2)(ii)(D) of this section, the approved child restraint system bears one or more labels as follows:

* * * * *

(D) Notwithstanding any other provisions of this section, booster-type child restraint systems (as defined in Federal Motor Vehicle Standard No. 213 (49 CFR 571.213)), vest- and harness-type child restraint systems, and lap held child restraints are not approved for use in aircraft; and

(c) Except as provided in paragraph (c)(3), the following prohibitions apply to certificate holders:

(1) No certificate holder may permit a child, in an aircraft, to occupy a booster-type child restraint system, a vest-type child restraint system, a harness-type child restraint system, or a lap held child restraint system during take off, landing, and movement on the surface.

(2) Except as required in paragraph (c)(1) of this section, no certificate holder may prohibit a child, if requested by the child's parent, guardian, or designated attendant, from occupying a child restraint system furnished by the child's parent, guardian, or designated attendant provided:

(i) The child holds a ticket for an approved seat or berth or such seat or berth is otherwise made available by the certificate holder for the child's use;

(ii) The requirements or paragraph (b)(2)(i) are met;

(iii) The requirements of (b)(2)(iii) are met; and

(iv) The child restraint system has one or more of the labels described in paragraph (b)(2)(ii)(A) through paragraph (b)(2)(ii)(C).

(3) This section does not prohibit the certificate holder from providing child restraint systems or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.

* * * * *

PART 135—AIR TAXI OPERATORS AND COMMERCIAL OPERATORS

7. The authority citation for part 135 continues to read as follows:

Authority: 49 U.S.C. app. 1354(a), 1355(a), 1421 through 1431, and 1502; 49 U.S.C. 106(g).

8. Section 135.128 is amended by removing the sentence in paragraph (a)(2)(ii)(A) that begins with "Vest- * * *", by removing the final "and" in paragraph (a)(2)(ii)(C), by revising paragraph (a)(1) and the introductory text of paragraph (a)(2)(ii), by adding a new paragraph (a)(2)(ii)(D), and by revising paragraph (b) to read as follows:

§ 135.128 Use of safety belts and child restraint systems.

(a) * * *

(1) Be held by an adult who is occupying an approved seat or berth, provided the child has not reached his or her second birthday and the child does not occupy or use any restraining device; or

(2) * * *

(ii) Except as provided in subparagraph (b)(2)(ii)(D) of this section, the approved child restraint system bears one or more labels as follows:

* * * * *

(D) Notwithstanding any other provision of this section, booster-type child restraint systems (as defined in Federal Motor Vehicle Standard No. 213 (49 CFR 571.213)), vest- and harness-type child restraint systems, and lap held child restraints are not approved for use in aircraft; and

(b) Except as provided in paragraph (b)(3), the following prohibitions apply to certificate holders:

(1) No certificate holder may permit a child, in an aircraft, to occupy a booster-type child restraint system, a vest-type child restraint system, a harness-type child restraint system, or a lap held child restraint system during take off, landing, and movement on the surface.

(2) Except as required in paragraph (b)(1) of this section, no certificate holder may prohibit a child, if requested by the child's parent, guardian, or designated attendant, from occupying a child restraint system furnished by the child's parent, guardian, or designated attendant provided:

(i) The child holds a ticket for an approved seat or berth or such seat or berth is otherwise made available by the certificate holder for the child's use;

(ii) The requirements or paragraph (a)(2)(i) are met;

(iii) The requirements of (a)(2)(iii) are met; and

(iv) The child restraint system has one or more of the labels described in paragraph (a)(2)(ii)(A) through paragraph (a)(2)(ii)(C).

(3) This section does not prohibit the certificate holder from providing child restraint systems or, consistent with safe operating practices, determining the most appropriate passenger seat location for the child restraint system.

* * * * *

Issued in Washington, DC, on May 19, 1995.

William J. White,

Acting Director, Flight Standards Service.

[FR Doc. 95–12800 Filed 6–7–95; 8:45 am]

BILLING CODE 4910–13–M

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49 CFR Part 571

[Docket No. 74–09; Notice 41]

RIN 2127–AF46

Federal Motor Vehicle Safety Standards; Child Restraint Systems

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This proposed rule, and a companion proposed rule issued by the Federal Aviation Administration (FAA), address the use of child harnesses and backless child restraints in aircraft. This document proposes to amend a provision in Federal Motor Vehicle Safety Standard No. 213, "Child Restraint Systems," that permits those restraints to be certified for use in both motor vehicles and aircraft.

Under the current FAA regulations, aircraft-certified child restraints may be used on aircraft. However, because testing has raised concerns about the safety of using harnesses and backless child restraint systems on the types of seats found in aircraft, FAA is publishing, in today's **Federal Register**, an NPRM that would prohibit the use of booster seats, and vest- and harness-type child restraint systems on aircraft even if they are certified for aircraft use.

NHTSA is, in turn, concerned that if FAA were to ban harnesses and backless booster seats from being used on aircraft, continuing to permit the certification of those restraints for aircraft use could be confusing to the public. Accordingly, this document proposes to require manufacturers to label these restraints as not being for aircraft use.

DATES: Comments on this proposed rule must be received by the agency no later than July 10, 1995.

ADDRESSES: Comments should refer to the docket number and notice number and be submitted in writing to: Docket Section, National Highway Traffic Safety Administration, Room 5109, 400 Seventh Street SW., Washington, DC 20590. Telephone: (202) 366–5267. Docket hours are 9:30 a.m. to 4:00 p.m. Monday through Friday.

FOR FURTHER INFORMATION CONTACT: Dr. George Mouchahoir, Office of Vehicle Safety Standards (telephone 202–366–4919), or Ms. Deirdre Fujita, Office of the Chief Counsel (202–366–2992), National Highway Traffic Safety Administration, 400 Seventh Street SW., Washington, DC 20590. For information on FAA's proposal, contact Ms. Donell Pollard (AFS–203), Air Transportation Division, Flight Standards Service (telephone 202–267–3735), Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591.

SUPPLEMENTARY INFORMATION: This document proposes to amend the provision in Federal Motor Vehicle Safety Standard No. 213, "Child Restraint Systems," that permits child restraint systems to be certified for use in both motor vehicles and aircraft. This rule complements an FAA proposal, published elsewhere in today's **Federal Register**, that would prohibit the use of booster seats, and vest- and harness-type child restraint systems on aircraft even if the restraints are certified for aircraft use.

The types of child restraint systems that are the subject of this NPRM are harnesses and backless child restraints. A harness typically consists of a vest or a series of straps that form a vest-like garment, that attaches at the back of the harness to a vehicle seat's lap belt. Harnesses are generally intended for children who weigh from 25 to 50 pounds, and some require the use of a tether strap to supplement the lap belt. A backless child restraint system is a type of child booster seat that has a structural element (typically a shield) designed to restrain forward motion of the child's torso in a frontal crash. Backless child restraint systems are generally intended for children weighing from 30 to 60 pounds.

("Backless child restraint system" is defined in S4 of FMVSS 213; see, 59 FR 37167, July 21, 1994). Backless child restraint systems are also known as "backless booster seats" or "shield-type" booster seats.

Background

Standard 213 permits manufacturers to certify their restraints [1] for aircraft use if they are certified for use in motor vehicles and meet an additional requirement, an inversion test. The provisions permitting such certification were added to the standard in 1984 (49 FR 34357; August 30, 1984), partly in response to suggestions of the National Transportation Safety Board (NTSB) that DOT simplify its standards for the performance of child restraints on aircraft by combining all technical requirements into a single standard (NTSB Safety Recommendations A–83–1, February 24, 1983). Prior to the amendment, FAA had its own child restraint standard, Technical Standard Order C100 (TSO C100). TSO C100 and FMVSS 213 had different performance requirements, methods of certification and testing procedures.

In the 1984 rulemaking, NHTSA and FAA concluded that the DOT child restraint requirements should be consolidated in FMVSS 213 and that a TSO C100 inversion test was the only performance requirement from the FAA standard that needed to be incorporated into FMVSS 213. In the inversion test, the combination of a child restraint, test dummy and aircraft passenger seat is rotated to an inverted position and held there. During the test, the child restraint must not experience any failure or deformation that could seriously injure or prevent the subsequent removal of the occupant.

Prior to the 1984 rulemaking, a manufacturer wishing to designate a child restraint model as suitable for aircraft had to submit information to FAA to obtain its approval of the model. As a result of this pre-1984 approval process, there was a disparity between the number of child restraints available for use in motor vehicles and the number available for use in aircraft. In 1984, approximately 28 models of child restraints were produced under FMVSS 213 for use in motor vehicles. The child restraint manufacturers obtained TSO authorizations for only five of the 28 models, or only 16 percent of the total production of child restraints.

The lack of FAA approval of most motor vehicle child restraints for use in aircraft aroused several safety concerns. One was that some families traveling by air were discouraged from taking unapproved child restraints with them and thus did not have them available for use at their destination to protect their children while the family was driving. The other concern was that those families who nevertheless took their unapproved child restraints on trips had to stow the restraints in the aircraft cargo compartment, and thus were not able to use them to protect their children during the flight.

The effect of the 1984 rulemaking was to speed certification of child restraints for use in aircraft, and thereby increase the availability of aircraft-certified child restraints. Since then, manufacturers have been able, under FMVSS 213, to "self-certify" their child restraints for aircraft use by ensuring that they pass all of the standard's motor vehicle requirements and the inversion test. As a result, there has been a tremendous increase in the number of child restraints certified for use in aircraft.

FAA complemented NHTSA's rulemaking by amending its Federal Aviation Regulations (FARs) (14 CFR Parts 91, 121, 125 and 135) to provide for the in-flight use of aircraft-certified child restraints. The amendments required the air carriers to allow the use of any child restraint having a labeling indicating that it is certified to FMVSS 213, manufactured under the standards of the United Nations, or approved by a foreign government, as long as the restraint can be secured to a forward-facing passenger seat. An infant or child who is accompanied by a parent, guardian, or properly designated attendant and who is properly placed in a device that meets the labeling requirements of the FARs and that, in turn, is properly secured in an approved aircraft seat using the safety belt, has been considered by FAA to comply with its regulations requiring each person to occupy an approved seat during takeoff and landing.

There are currently many different types of child restraint systems that are certified as complying with FMVSS 213's motor vehicle and aircraft requirements, and thus permitted by FAA for use on aircraft. In addition to harnesses and shield boosters, these systems included "infant seats," which position an infant so that the baby faces toward the rear of the motor vehicle or aircraft; "car beds," which position the child laterally across the vehicle or aircraft seat; and "convertible" child seats, which convert so that they can be used rear-facing with infants and forward-facing with toddlers. In addition, there are restraint systems, such as the "belly belt," that are certified for use in airplanes by foreign countries. Belly belts restrain a small child on the lap of an adult and consist of a short loop of webbing with buckle hardware on the ends. The belt is buckled around the child's abdomen and is secured to the adult's safety belt by routing the adult's safety belt through a small loop of webbing sewn on the belly belt. Belly belts are certified for airplane use by the Civil Aviation Authority of the United Kingdom. However, belly belts cannot meet the performance requirements of FMVSS 213 and therefore have not been certified for use in the United States.

FAA Withdrawal of Approval

Elsewhere in today's **Federal Register**, FAA is proposing to withdraw approval for the use of harnesses and booster seats on aircraft. The FAA is also emphasizing the existing prohibition in all aircraft against the use of lap held child restraints, including belly belts. The action responds to recent research by FAA's Civil Aeromedical Institute (CAMI). The practical effect of that amendment would be to ban all use of these restraints on aircraft.

The CAMI research is discussed in a report entitled, "The Performance of Child Restraint Devices in Transport Airplane Passenger Seats," a copy of which has been placed in the NHTSA rulemaking docket for this notice. (Persons wishing to obtain a copy of the report should contact FAA at the address given in the "For Further Information" section at the beginning of this final rule document.) CAMI dynamically tested six types of restraining devices: Child harnesses, booster seats, rear-facing infant seats, convertible child restraint systems, airplane seat lap belts, and belly belts. The first four devices were evaluated for their ability to fit and adjust to an airplane passenger seat and lap belt. The lap belt was evaluated for its ability to secure test dummies representative of children two and three years old. Fit and adjustment was not considered an issue for the installation of the belly belt. All of the devices were evaluated for their performance in aircraft seats with and without "breakover" seat backs (a breakover feature allows the seat back to rotate forward easily when impacted by an occupant from behind).

[1] One type of child restraint, the "belt positioning" booster seat, is not eligible for such certification. These restraints, which are intended for use by children weighing from 30 to 60 pounds, are designed for use with a lap/shoulder belt system. FMVSS No. 213 does not permit these restraints to be certified for aircraft use because aircraft passenger seats typically lack shoulder belts. See amendment of FMVSS 213 to permit manufacture of belt-positioning child seats (59 FR 37167; July 21, 1994). In its NPRM, the FAA proposes to ban the use of belt-positioning booster seats on airplanes.

They were also evaluated, using anthropomorphic test dummies representing children, for their ability to limit occupant head excursion, head and chest acceleration and abdominal forces. In addition, the test program evaluated the effect that the impact load of an "aft row occupant" had on the performance of a child restraint located in an aircraft seat immediately in front of the aft row occupant. The aft row occupant impact load was generated in tests called "double row tests," using an adult test dummy placed in the aft row seat.

Booster Seat Tests

CAMI tested four models of shield-type booster seats in six dynamic tests, three of which involved single row tests, and the other three, double row tests. With regard to fit and adjustment of the booster seats to the airplane seat, CAMI found that three had fit and adjustment problems. One booster seat had problems fitting an airplane seat because of the limited width between arm rests on the passenger seat. This may have occurred because of the difference in width between the representative aircraft seat (about 20 inches wide) used in FMVSS 213 and the aircraft seat (17.25 inches wide) used in the CAMI testing. Two booster seats had incompatibility problems between the buckle/webbing path molded in the front shield and the airplane web path and buckle position of the lap belt on the airplane passenger seat used by CAMI. In fact, the webbing could not be installed over the front shield in accordance with the positioning instruction of the booster seats' manufacturers. CAMI also found that one of the four booster seats failed structurally, and two of the others allowed forward head excursion in excess of the 32-inch distance permitted by FMVSS 213.

CAMI also found a problem with the loads that the child dummies restrained in the tested booster seats experienced when the boosters were on a seat with a breakover seat back and exposed to loads from the aft row occupant. Its tests showed that loads from an aft row adult occupant resulted in an increase in abdominal loading of the dummy in a booster seat, as compared to the abdominal loading of a dummy in an aircraft lap belt with an adult aft-row occupant. The CAMI study states that, when placed in a seat with a breakover seat back, the booster seat encounters problems because:

> With no back shell, the typical booster seat does not provide protection from the forces transmitted by the airplane seat back during horizontal impact conditions. Traditionally, restraint systems in airplanes have been designed to avoid loads transmitted to the soft tissues of the abdomen. A child restrained in a booster seat may be forced against the rigid shield due to the seat back breakover action. For the intended size of children in booster seats, the load path of these breakover forces may include the abdominal region.

It is to be noted that CAMI also found that the abdominal loads on a child dummy placed in a shield-type booster seat secured to an airplane seat with a locked seat back were higher than on a child dummy secured in a typical airplane seat lap belt with a locked seat back. The FAA recognizes in its NPRM, however, that there are no accepted criteria to assess the relationship between differences in measured levels of abdominal loadings and any resulting risk of abdominal injury, and the type and severity of such injury.

Harness Tests

CAMI tested one type of harness restraint. The restraint consisted of a torso vest with straps over the shoulders and around the waist, and a crotch strap. The shoulder and abdomen straps were attached to a rectangular metal plate on the back of the restraint. The airplane lap belts were routed through a loop of webbing attached to the metal back plate on the restraint.

The restraint was tested with a three-year-old test dummy in two single row tests. CAMI found incompatibility problems between the harness and the airplane seat lap belts: "With the lap belts adjusted to the minimum length, the [harness] could be moved forward approximately 7 inches before tension was developed in the belts. This was considered unsatisfactory for testing." CAMI also found grossly excessive excursion of the child anthropomorphic test dummy(ATD) restrained in the harness:

> The ATD moved forward and over the front edge of the seat cushion and proceeded to submarine toward the floor. Elasticity in the webbing of the harness and the lap belts then heaved the ATD rearward. The force pulling the ATD back into the seat appeared to be applied by the Gz [crotch] strap directly through the pubic symphysis of the pelvic bone.

Based on this finding, CAMI concluded that a harness performs poorly in protecting the child occupant.

NHTSA Proposal

NHTSA has tentatively concluded that, if FAA were to adopt its proposed ban on the use of harnesses and backless booster seats on aircraft, consumers would be confused if manufacturers were to continue nevertheless to certify these types of restraints for aircraft use. Accordingly, NHTSA proposes to amend FMVSS 213 to require manufacturers to label these child restraint systems as not being for use on aircraft. The standard already requires that belt-positioning booster seats be so labeled.

In issuing this proposal, NHTSA believes that it is important to emphasize several points about the use and performance of child restraints. First, there are significant differences between the seating environment of motor vehicles and that of aircraft. Second, because of those differences, the problems encountered with child restraint use in aircraft are not encountered with child restraint use in motor vehicles. Therefore, notwithstanding this proposal, the use of harnesses and booster seats in motor vehicles continues to be important for child safety.

The problems reported by CAMI, i.e., the combined effects of aircraft seatback breakover designs and aft occupant impacts, are not encountered in motor vehicles. The seat back in a motor vehicle is designed to remain fixed in a crash and not "breakover" in the manner of an airplane seat. Also, a vehicle seat containing a child restraint is less likely to be impacted from the rear by an adult than is an aircraft containing a child restraint. There are several reasons for this. First, child restraints are recommended for use in the rear vehicle seating positions. Thus, if a child restraint is installed as recommended, there will not, in most cases, be any passenger rearward of the child restraint who could impact and load the seat containing the child restraint in the event of a frontal crash. Exceptions would be in vehicles, such as vans and some station wagons, which have three rows of seats. Second, if there were a passenger seated behind the seat containing a child restraint, and that person were sitting in an outboard seating position, the person would have a lap/shoulder belt system available for use. Most aircraft lack shoulder belts. If the vehicle passenger were restrained by that belt system, the person would not load the seat with the child restraint in the manner observed in the CAMI study. Third, given the number of persons typically carried in a motor vehicle, it is unlikely there would be an adult seated behind a child in a child restraint, regardless of the number or pattern of seats in the vehicle.

Further, harnesses and other child restraints are tested under FMVSS 213 on a seat assembly that is representative of a motor vehicle seat, and that is equipped with a safety belt

representative of the lap belt in the center rear seating position. In its compliance testing, the agency has not found a problem between the vehicle lap belt and a child harness such as that found by CAMI between an airplane lap belt and a harness. In addition, NHTSA has not found in its compliance testing the type of fit and adjustment problems between booster seats and the vehicle seats that CAMI found between booster seats and the aircraft seats.

Booster seats could fit better on vehicles than aircraft in part because of the design of the belt restraints with which the boosters are attached to the vehicle. The position of the buckle for an aircraft seat belt assembly is very different from that of a buckle for a vehicle seat belt assembly. An aircraft seat belt assembly is designed so that when it is buckled, the buckle is located midway between the anchorages, in front of the user's abdomen. A motor vehicle lap/shoulder belt or lap-only belt is designed so that the buckle is located to the side of the user's torso, near the hip, when the belt is buckled.

Another reason for believing that the problems reported by CAMI are not indicative of the performance of child restraints in motor vehicles is the difference between the crash pulse used by CAMI and the crash pulse used in FMVSS 213 testing. In its testing of head excursion, head and chest acceleration and abdominal forces, CAMI used a crash pulse appropriate for aircraft. FMVSS 213 testing, by contrast, involves the use of a motor vehicle crash pulse.

In view of the problems revealed by the CAMI testing, NHTSA and FAA will consider whether there is a need for future rulemaking to improve FMVSS 213's requirements for aircraft-certified child restraints other than harnesses and booster seats. The agencies are developing possible requirements and procedures that could improve the assessment of the performance of child restraint systems in the aircraft environment. Among other issues, the agencies will consider whether the seat assembly used under FMVSS 213 in testing child restraints for aircraft use sufficiently represents an aircraft passenger seat. Child restraints certified as complying with FMVSS 213's aircraft requirements are currently tested on a "representative aircraft passenger seat" (S7.3 of FMVSS 213). FMVSS 213 also specifies that FAA approved aircraft safety belts are used to test child restraints that are certified to the aircraft requirements.

Proposed Effective Date

The proposed effective date is 90 days after the publication of a final rule in the **Federal Register**.

Rulemaking Analyses and Notices

Executive Order 12866 (Regulatory Planning and Review) and DOT Regulatory Policies and Procedures

NHTSA has evaluated the impacts of this proposal and has determined that it is significant within the meaning of the Department of Transportation's regulatory policies and procedures. The rulemaking action is significant because of the substantial public interest in issues involving child seats on aircraft. This rule is a significant regulatory action under E.O. 12866.

While this action is significant because of the public interest associated with it, NHTSA tentatively concludes that a rule resulting from this notice would have minimal impacts. In 1991, there were an estimated 1,200,000 booster seats produced. The consumer cost of a label is estimated to be $0.09 to $0.17, and total annual costs of a separate label range from $108,000 to $204,000. However, adding a sentence to the existing label, most likely the course of action taken in response to this rulemaking, would cost much less. This cost might be $0.01 per label, resulting in a total annual cost of $12,000. There is an added economic benefit of this proposed rule. Since booster seats would no longer be permitted to be certified for aircraft, there would be no need to perform the inversion test. Thus, testing costs to the child restraint manufacturer would be slightly reduced.

The agency is concerned whether this rulemaking action could affect consumers' use of booster seats before and after the air portion of their trips. In the 1984 rulemaking that allowed child restraints to be certified for use on motor vehicles and aircraft, NHTSA recognized that parents might not use child restraints to transport their children to and from the airport if the child restraint could not be used on the aircraft. The data indicated that child safety was not a critical issue for aircraft in terms of the number of child deaths, but that it was a large problem for motor vehicles before and after the flight. Many State laws that require the use of child seats in motor vehicles do not cover all the ages of children that might use booster seats. If booster seats may not be used on aircraft, and if parents are not willing to stow them with their luggage, NHTSA is concerned about the possibility that they could be left home altogether. As a result, the number of child injuries in motor vehicle accidents might increase. NHTSA requests comments on how it should assess this issue. The agency is particularly interested in information concerning how many of these booster seats are currently in use and on the availability of booster seats at car rental agencies.

Regulatory Flexibility Act

NHTSA has considered the effects of this proposal under the Regulatory Flexibility Act. I hereby certify that this rule, if adopted, would not have a significant economic impact on a substantial number of small entities. Of the 11 current child restraint manufacturers known to the agency (not counting manufacturers of built-in restraints), there are six that qualify as small businesses. This is not a substantial number of small entities. Regardless of the number of small entities, the proposed rule would not have a significant economic impact on these entities. As noted above, the labeling costs associated with this rulemaking would be minimal. Further, the agency believes sales of booster seats would be minimally affected by this rulemaking, if at all. NHTSA believes almost all consumers decide to purchase a child restraint based on their intent to use the restraint in a motor vehicle, not in aircraft.

Executive Order 12612 (Federalism)

This rulemaking action has been analyzed in accordance with the principles and criteria contained in Executive Order 12612. The agency has determined that this proposed rule would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

National Environmental Policy Act

NHTSA has analyzed this rulemaking action for the purposes of the National Environmental Policy Act. The agency has determined that implementation of this action would not have any significant impact on the quality of the human environment.

Executive Order 12778 (Civil Justice Reform)

This proposed rule would not have any retroactive effect. Under section 49 U.S.C. 30103, whenever a Federal motor vehicle safety standard is in effect, a State may not adopt or maintain a safety standard applicable to the same aspect of performance which is not identical to the Federal standard, except to the extent that the State requirement imposes a higher level of performance and applies only to vehicles procured for the State's use. 49 U.S.C. 30161 sets

forth a procedure for judicial review of final rules establishing, amending or revoking Federal motor vehicle safety standards. That section does not require submission of a petition for reconsideration or other administrative proceedings before parties may file suit in court.

Submission of Comments on This Proposal

There is a 30-day comment period for this notice. The FAA provides a 30-day comment period for its proposal. NHTSA believes the comment period for the agencies' proposals should be identical since the two rulemaking actions complement each other. The comment period is shorter than 60 days so that FAA can expeditiously assess what action should be taken to address what that agency has tentatively concluded to be a possible safety problem.

Interested persons are invited to submit comments on this proposed rule. It is requested, but not required, that 10 copies be submitted.

All comments must not exceed 15 pages in length. (49 CFR 553.21). Necessary attachments may be appended to these submissions without regard to the 15-page limit. This limitation is intended to encourage commenters to detail their primary arguments in a concise fashion.

If a commenter wishes to submit certain information under a claim of confidentiality, three copies of the complete submission, including purportedly confidential business information, should be submitted to the Chief Counsel, NHTSA, at the street address given above, and seven copies from which the purportedly confidential information has been deleted should be submitted to the Docket Section. A request for confidentiality should be accompanied by a cover letter setting forth the information specified in the agency's confidential business information regulation. 49 CFR Part 512.

All comments received before the close of business on the comment closing date indicated will be considered, and will be available for examination in the docket at the above address both before and after that date. To the extent possible, comments filed after the closing date will also be considered. Comments received too late for consideration in regard to the proposal will be considered as suggestions for further rulemaking action. Comments will be available for inspection in the docket. The NHTSA will continue to file relevant information as it becomes available in the docket after the closing date, and it is recommended that interested persons continue to examine the docket for new material.

Those persons desiring to be notified upon receipt of their comments in the rules docket should enclose a self-addressed, stamped postcard in the envelope with their comments. Upon receiving the comments, the docket supervisor will return the postcard by mail.

List of Subjects in 49 CFR Part 571

Imports, Motor vehicle safety, Motor vehicles.

In consideration of the foregoing, NHTSA proposes to amend 49 CFR Part 571 as set forth below.

PART 571—[AMENDED]

1. The authority citation for Part 571 would continue to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117 and 30166; delegation of authority at 49 CFR 1.50.

2. Section 571.213 would be amended by revising S5.5.2(n) to read as follows:

§ 571.213 Standard No. 213, Child Restraint Systems.

* * * * *

S5.5.2 * * * * *

(n) Child restraint systems, other than belt-positioning seats, harnesses and backless child restraint systems, that are certified as complying with the provisions of section S8, shall be labeled with the statement "This Restraint is Certified for Use in Motor Vehicles and Aircraft." Belt-positioning seats, harnesses and backless child restraint systems shall be labeled with the statement "This Restraint is Not Certified for Use in Aircraft." The statement required by this paragraph shall be in red lettering and shall be placed after the certification statement required by paragraph (e) of this section.

* * * * *

Issued on May 19, 1995.

Barry Felrice,

Associate Administrator for Safety Performance Standards.

[FR Doc. 95–12801 Filed 6–7–95; 8:45 am]

BILLING CODE 4910–59–P

U.S. Department
of Transportation

**Federal Aviation
Administration**

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

Official Business
Penalty for Private Use $300