

# **AN EXAMINATION OF THE U.S. REGIONAL AIRLINE POLICIES REGARDING CHILD RESTRAINT SYSTEMS**

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## **ABSTRACT**

A prior study (Carstenson, Sluti and Luedtke, 1997) examined the policies of U.S. air carriers with regard to the use of infant restraint systems on board commercial aircraft. This study expands on that earlier study by examining the policies of commuter air carriers in the United States regarding the use of infant restraint systems. The management policy of the commuter air carriers has been investigated and officials of the commuter air carriers were surveyed to determine how the carriage of infants onboard their aircraft varied among commuter airlines. The topics investigated included seat space for infants, restraint systems for infants, and amenities for infant passengers. The results of this study have been analyzed to ascertain if any recommendations can be made to the commuter airlines regarding the carriage of infants onboard their aircraft.

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## INTRODUCTION

Major U. S. airlines are responding to the needs of parents and their children who are flying on their aircraft. Information is well publicized regarding what to expect when flying with small children, including the requirements for child restraints. Two examples of this important information reaching the traveling public include pamphlets by Southwest Airlines entitled "Baby on Board: Information You Should Know When Flying With Your Infant Or Toddler" and "Tips for Children Traveling Alone." The Federal Aviation Administration (FAA) now has a consumer information hotline (1-800-FAA-SURE) where the flying public can obtain a list of FAA safety recommendations for air travel by children. These are significant issues for parents traveling with small children which could influence whether the family flies or drives to their destination. These issues could even influence their choice in the selection of an airline.

Current Federal Aviation Regulations require everything in an aircraft to be strapped down for takeoff and landing—everything, that is, except infants less than two years of age (Title 14, 1995, Section 121.311). The Federal Aviation Regulations (FARs) specify that everyone on-board a commercial aircraft "...shall occupy an approved seat or berth with a separate safety belt properly secured about him or her during movement on the surface, takeoff, and landing" (Title 14, 1995, Section 121.311b). The regulations continue: "Notwithstanding the preceding requirements, a child may: (1) be held by an adult who is occupying an approved seat or berth if that child has not reached his or her second birthday...."

The FAA emphasizes the importance of child restraint systems in the Child Passenger Safety Resource Manual. In that manual the FAA states, "The Federal Aviation Administration recommends that young children ride in child safety seats during air travel. Child seats will not only enhance the child's safety in the event of a crash but will also protect the child from injury during in-flight turbulence and rough landings" (U.S. Dept. Of Trans., 1993). In the event of an airplane crash or even in cases of severe turbulence, an unsecured two-year-old becomes a human projectile, careening through the cabin and causing as much damage as an unsecured twenty-pound briefcase.

As long as the government continues to grant parents traveling with infants the option to either use infant restraint systems or to place their infants on the parent's lap (Title 14, 1995, Section 121.311c), the traveling public (and the airlines) will be confused about what they must do to insure the safety of those infants.

However, as stated above, it is encouraging that some of the major airlines are taking notice and are educating the public about these safety issues. In the Southwest Airlines pamphlet "Baby on Board: Information You Should

Know When Flying With Your Infant Or Toddler," information is presented and questions are answered regarding what is an appropriate child restraint device (CRD), what type of CRD is best, how a CRD should be used, whether infant carriers are permitted on the airlines, and whether discounts are offered for children under two years of age, among other suggestions. The information presented in this pamphlet educates parents and the public in general to the safety issues of infants when flying on this air carrier.

### **PURPOSE OF STUDY**

After examining the policies of the U.S. major commercial air carriers regarding the use of infant restraint systems on aircraft, the researchers decided to broaden the focus and conduct a second study to assess the policies of the regional airlines. The main objectives in this second study have been to ascertain the policies, practices, and opinions of executives of the commuter/regional airline industry of the United States regarding infant restraint systems for each individual airline.

### **BACKGROUND LITERATURE**

Carstenson, Sluti and Luedtke (1997) examined the policy of the United States major commercial air carriers regarding the use of infant restraint systems on aircraft. Since then, the White House Commission on Aviation Safety and Security's final report has been released (February 12, 1997). In Recommendation 1.13, the Commission suggests that the FAA eliminate the exemptions in the FARs that allow passengers under the age of two to travel without the benefit of FAA approved restraints. The Commission stated that it believes it is inappropriate for infants to be afforded a lesser degree of protection than older passengers (White House Commission).

Subsequent to that report, both the United States Senate and the United States House of Representatives introduced legislation in an effort to enact into law White House Recommendation 1.13. In the 105th Congress, first session, both the Senate and the House of Representatives proposed legislation requiring the use of child restraint systems approved by the Secretary of Transportation on commercial aircraft. The Senate introduced S 398 on March 5, 1997, the purpose of which was to direct the Secretary of Transportation to issue regulations requiring the use of federally-approved child safety restraint systems including weight and age limits on commercial aircraft (U.S. Senate Bill 398). On February 13, 1997, HR 754 was introduced before the U.S. House of Representatives. The House bill contains language similar to that presented in the Senate bill. Both bills have been sent to committee but no hearings or legislative action are scheduled for either bill. According to the Information for Public Affairs, Inc., a group that tracks all bills introduced in

Congress, the odds that the bills will pass are about one percent (1995 Information for Public Affairs, Inc.). No further action has been taken regarding either bill as of late Fall of 1998.

Four times since 1989, legislation has been introduced in both houses of congress in an effort to place restrictions on the carriage of infants on-board aircraft. However, none of this legislation has been successful. In December 1996, the FAA launched a campaign directed at educating the public regarding the use of seat belts for infants who fly onboard commercial aircraft. The campaign, identified as "Turbulence Happens," promotes the use of seat belts and child restraint systems onboard commercial aircraft (Towle, 1996).

### **NATURE OF THE PROBLEM**

In the past, if a family was traveling a certain distance (e.g., five hundred miles or less), it was more economical to drive than to fly. Many families considered traveling by air only if it was greater than a certain distance and then it would more than likely be on a major air carrier. As a result, the commuter/regional airline business has historically consisted primarily of the business traveler. However, as travel patterns change and regional airlines become more competitive, more families are likely to fly on these airlines. The problems of the infant safety issues and child seats will become more and more important to traveling parents with infants and, in turn, become more important to the regional airlines. For that reason, this additional study is necessary.

### **METHODOLOGY**

This study ascertains the policies and practices of the United States regional airlines regarding carriage of passengers under two years of age. To the authors' knowledge, such data is not available from secondary sources. Data were gathered from the primary source, which is the management of U. S. regional airlines. Selection of the survey population and data collection methodology are explained in this section of the paper.

The Annual Report of Regional Airline Association (RAA,1996) provides a membership listing of U.S. regional airlines. Information included in the RAA report includes the corporate officers, firm addresses and the number and type of aircraft flown by each carrier. The study focused on regional airlines that fly regularly scheduled flights and operate more than a single aircraft. One hundred and nine regional airlines met the criteria and are the focus of the study.

Selection of the method of data collection required consideration of several characteristics of these carriers and the environment in which U.S. regional carriers operate. The 109 regional airlines are dispersed across the

United States, making it impractical to visit individual sites for personal interviews. A mail survey was selected as the most appropriate means of data gathering from these widely dispersed airlines. This method provided the opportunity to participate to all regional airlines that meet the criteria. A mail survey allowed airline management the opportunity to answer the survey at their convenience, an advantage over using a telephone survey.

A survey instrument was developed to determine the policies and practices of U.S. regional airlines with regard to passengers under two years of age. The survey also offered management the opportunity to express opinions on the issue of infant safety on airlines. The survey instrument and its cover letter appear in an appendix to this paper. The survey instrument was modeled on a prior survey of major U.S. air carriers (Carstenson, Luedtke and Sluti, 1997) modified to account for differences between major carriers and regional airlines. Surveys were mailed to 109 regional airlines in April, 1997. Reply envelopes were coded for respondent identification. A second mailing was sent to non-respondents one month later.

## **SURVEY RESULTS**

Forty-six surveys were completed and returned. An additional survey was returned uncompleted by one airline which had recently ceased operations. The response rate, based on 108 potential respondents, was 42.6%. Responses to individual questions total less than 46 where management did not respond to a particular question. In several cases, respondents checked multiple responses to categories given in Questions 1 through 3. In these instances, the response totals may exceed 46. Responses to questions 4 through 14 of the surveys are summarized in Table 1. Responses to Questions 1 through 3 and question 15 are summarized separately, since they were of a different response format than yes/no. Thirteen of the respondents report use of flight attendants on the majority of their regularly scheduled flights. Twenty-nine reported that they do not use flight attendants. Three airlines reported that they have an even mix of flights with and without flight attendants. One respondent failed to indicate a response to this item. Table 2 compares the responses of those airlines using flight attendants with those who do not use attendants.

Responses to Questions 1 through 3 are summarized in three categories: airlines who stated that they use flight attendants (FA), those who do not (NFA), and those who indicated that about half of their flights use flight attendants (B).

Responses to Question 1, concerning airline policy with regard to infant passengers traveling with an adult, were mainly that an infant flies at no charge with no seat space guaranteed (11 FA, 23 NFA, 3 B). Two airlines,

both NFA carriers, stated that infants fly at no charge with seat space being guaranteed for the infant. One FA, one NFA and one B carrier responded that the infant may pay a discounted fare and receive a separate seat. Four carriers (1 FA, 2 NFA, 1 B) answered that a normal fare may be paid for an infant to guarantee a separate seat. However, for these carriers the option of flying at no charge was indicated, with the exception of the one FA carrier. The "other" category response (1 FA) was that "The parent may buy [a] seat [for the infant] if they are using a FAA approved child seat"; otherwise, the infant will sit on the adult's lap.

Take-off and landing infant restraint policies (Question 2) exhibited the greatest response variety of any of the first three questions. Three NFA carriers advised that infants must be restrained using the adult's seat belt. The most frequent response (5 FA, 19 NFA and 3 B) was that infants are not required to be restrained. One NFA carrier stated that infants must be restrained in a rear-facing child seat. Two FA, seven NFA and two B carriers stated that infants will be secured in a vacant seat if such a seat is available on the flight. For "other" category responses, seven FA carriers and two NFA carriers stated that the parent must restrain the child without using a seat belt.

Emergency landing and turbulent condition restraint procedures (Question 3) also resulted in a variety of responses. One NFA carrier stated that these procedures were the same as for any other passenger, since their airline guarantees infant seat space. Three FA, nine NFA and two B carriers responded that infants are placed in a vacant seat if one is available. Eleven FA, twenty-four NFA and three B carriers replied that infants are to be placed on the parent's lap. None of the regional carriers reported following the policy of at least one of the major air carriers (Grosscup, 1997) which is to place the infant on the floor of the aircraft in emergencies.

Responses, shown in Table 1, indicate that regional airlines vary in their practices and policies in several areas with regard to carriage of infants. Percentages are calculated from the yes/no/not applicable responses and are not inclusive of unanswered questions. While 95 percent of regional airlines do not provide child seats, other policies are not as homogeneous. Thirty-eight percent of the airlines consider child-seats as one of the fare-paying passenger's carry-on allowance items and 56 percent count strollers and/or diaper bags as part of the carry-on allowance. Nearly 20 percent carry oxygen masks which are designed for infant use. Twenty percent of the airlines have extra oxygen masks available for use by infants when all seats have been filled by fare paying passengers.

Table 2 uses the same response data as shown in Table 1; however, the data are grouped by those airlines that reported using flight attendants as compared to those who do not. The data for the three carriers categorized as B carriers are not included in Table 2. Statistical tests of significant differences in

**Table 1: Policies, Practices and Management Opinion**

<i>Survey Question</i>	<i>Yes</i>		<i>No</i>		<i>N/A</i>	
4. Airline provides child seat	1	2%	41	95%	1*	2%
5. Seat counts as carry-on	16	38%	26	62%		
6. Diaper bags and strollers count as carry-ons	22	56%	17	44%		
7. Infant oxygen masks	8	20%	18	44%	15	37%
8. Extra masks	9	21%	20	46%	15	34%
9. Infant injuries	0		45	98%	1	2%
10. Agree with FARs	14	37%	24	63%		
11. Unacceptable danger in FARs	16	39%	25	61%		
12. Need legislation	16	39%	25	61%		
13. Agree with FAA position	23	55%	19	45%		
14. Decide issue on cost/benefit basis	8	21%	30	79%		

\*The single n/a response here and for question 9 was given by an airline which has not yet begun flying scheduled flights.

responses are not possible due to the limited sample size. The sample comprises nearly half of the total of U.S. regional air carriers that met the study's selection criteria. It can be argued that a general pattern can be discerned from these responses as to the policies, practices and opinions of the regional carriers.

With one exception, commuter airlines do not provide infant restraint seats. There is little difference between the FA and NFA groups with regard to their agreement or disagreement with FARs on the issue of infant restraint during take-off and landing. No respondents report having infant injuries during the past five years. One carrier proudly reported that it has had no infant injuries in its 30 years of operation.

Response categorization differs significantly for the two groupings on the rest of the survey questions. Thirty percent of FA carriers count child seats as a carry-on and 36 percent of NFAs do so. The disparity was more pronounced for diaper bags and strollers where 73 percent of the FAs say that these items count as carry-ons, while slightly less than one half the NFAs view these items similarly. FAs are comparatively more liberal than NFAs in allowing child seats as non-carry-ons while FAs are more restrictive in the allowance of diaper bags and strollers. Not surprisingly, the responses to the two questions that focused on oxygen masks varied greatly between the two groups. Sixty-four percent of FAs report having oxygen masks suitable for infants, while only 11 percent of NFAs carry such masks. Extra masks are available on 72 percent of FAs and only 4 percent of NFAs. However, more than half of the NFA carriers reported that their aircraft do not require the use of passenger oxygen masks, which explains the large number of not applicable responses for NFA carriers.<sup>1</sup>

**Table 2: Policies, Practices and Management Opinion**

<i>Survey Question</i>		<i>Yes</i>		<i>No</i>		<i>N/A</i>	
4. Airline provides child seat	FA	1	8%	11	92%		
	NFA			28	997%	1	3%
5. Seat counts as carry-on	FA	3	30%	7	70%		
	NFA	10	36%	18	64%		
6. Diaper bags and strollers count as carry-ons	FA	8	73%	3	27%		
	NFA	13	48%	12	44%	2	7%
7. Infant oxygen masks	FA	7	64%	4	36%		
	NFA	3	11%	9	33%	15	56%
8. Extra masks	FA	8	72%	3	28%		
	NFA	1	4%	11	39%	16	57%
9. Infant injuries	FA			12	100%		
	NFA			29	100%		
10. Agree with FARs	FA	4	40%	6	60%		
	NFA	10	37%	17	63%		
11. Unacceptable danger in FARs	FA	6	55%	5	45%		
	NFA	9	33%	18	67%		
12. Need legislation	FA	6	55%	5	45%		
	NFA	9	33%	18	67%		
13. Agree with FAA position	FA	4	36%	7	64%		
	NFA	17	61%	11	39%		
14. Decide issue on cost/benefit basis	FA	1	9%	10	91%		
	NFA	7	27%	19	73%		

FA = airline uses flight attendants

NFA = airline does not use flight attendants

Opinions on child restraint systems and policies exhibits the same dichotomy of response associated between the FA and NFA groupings. FA carriers came out in support of legislation on this issue by a small margin. Fifty-five percent favored legislation, while 45 percent did not seek legislation. NFA carriers saw only 33 percent favoring legislation. While 36 percent of FAs are in agreement with the FAA position that no policy change on infant restraints is presently needed, 61 percent of the NFAs agree with the FAA stand. A majority of both groups stated that other considerations besides cost/benefit should be taken into account when deciding on the policy of child restraints. Interestingly, there is a large disparity between the FA and NFA carriers in response to this question. Ninety-one percent of FA carriers feel that factors other than cost/benefit should be considered, while 73 percent of the NFAs felt that other considerations should be considered.

## COMPARISON OF SURVEY RESULTS OF REGIONAL AIRLINES WITH MAJOR AIRLINE

Comparing the answers to questions asked of the regional airline personnel with the answers given by management and the reservations agents of the major airlines (Carstenson, Sluti and Luedtke, 1997) produced some interesting results. When members of management of the major airlines were asked to explain the policy of their airlines with regard to infant passengers traveling with an adult, the majority of them said they thought that the child flies on a discounted ticket. However, all ticket agents of the major airlines who were questioned said that no ticket is necessary for an infant passenger who is held on the lap of the adult. Agreement on the policy with regard to the restraint of infant passengers during takeoff and landing was more consistent among the members of management and the reservations agents of the major airlines, all of whom said that no restraint of infants was required.

When the position of management and reservations agents of the major airlines regarding their procedure for the handling of infants during an emergency landing was examined, some variations surfaced. Although most members of management who responded to that question indicated that the infant passenger sits on the lap of the parent, reservations agents were unanimous in their explanation that infants do sit on the lap of the parent.

No members of management of the major airlines said that they provide infant restraint systems for use by their passengers, and virtually all reservations agents agreed. In one question, not asked of management of the major airlines, 87 percent of the reservations agents said that child seats count as a carry on for the adult passenger.

Unlike the questionnaire method utilized by the authors in the earlier research paper, the regional airline survey also gave the respondent an opportunity to provide additional comments regarding the issue of child restraint systems and policies. Several respondents provided such commentary. These comments are summarized below.

*Infants should be restrained, provided a seat, oxygen mask and required to pay the least expensive seat fare.*

*If space is available, infants should be given a seat with proper restraint. If the aircraft is full, it would be desirable to have an on-the-lap alternative restraint system which fits the present mountings but gives the child independent restraint. By using the suggested restraint system...restraint would add considerable child (infant) safety with very little cost...*

*Infant restraint should not be an issue unless the fatality rate for infants is shown to be significantly higher than the total rate for others.*

*Our policy is...to remain competitive. ...infant restraint systems should be required.*

*Parents bringing an infant on a flight should be required to provide or rent an approved seat and buy a ticket for [a] child. People bringing pets onboard an aircraft are required to provide a container or rent one... It is the parents' responsibility since they have the kids and are traveling with them, not the transportation company's [responsibility].*

*....anyone under two should be required to have a seat. The FAA is not the company that would be sued if there was a death of an infant.*

*At a minimum, infants should be held by a capable adult and should not be under parent's seat belt.*

*Airlines should enact their own policy. We do not need more regulations. Although our 17-seat operation would suffer if non-paying passengers were required to have a dedicated seat and restraining system, the safety of infants is a far more important consideration. We would likely institute a charge for infants if they were required to take a seat.*

## IMPLICATIONS AND CONCLUSIONS

It appears from the survey results that significant diversity exists regarding the policies, practices, and opinions of executives of the regional airlines involving infant restraint systems and other safety issues for infants. The majority of the airlines that answered the survey indicated that infants traveling with an adult could fly at no charge but with no seat space guaranteed for the infant. However, there was significant variety in policy among regional airlines regarding take-off and landing procedures as well as emergency landing and turbulent condition restraint procedures. As indicated earlier, the diversity among the regional air carriers regarding several issues appears to be affected by whether or not there are flight attendants onboard. This is not surprising since the flight attendants will be most familiar with the space requirements and limitations of the aircraft and what is available for the infants. Also, the safety issues for the infants will be more apparent to the flight attendants since they deal with the public one-on-one.

One of the concerns (besides the economic concerns of the airlines) of mandating that infants be restrained during take-offs and landings is that this would force parents to drive instead of fly (because of the airlines charging for the extra seat used by the infant), thus leading to more deaths. The variety of comments on question 15 of the survey conducted by the authors demonstrates that this continues to be a hot topic with the regional airlines as was the case with the major air carriers. As indicated previously, some major air carriers and the FAA are trying to educate the traveling public regarding the use of infant restraint systems on commercial aircraft. If the regional airlines want to attract more families to fly with them, they must address this issue as well. There is no question that the variety of policies by the different airlines

is daunting and confusing to a majority of families flying with young children.

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