

- Corpus Christi Industrial Pipeline Company, and Transco Energy Marketing Company
 CAG-60.
 Docket No. CP89-138-001, Panhandle Eastern Pipe Line Company
 CAG-61.
 Docket No. CP88-099-001, Northern Natural Gas Company
 CAG-62.
 Docket Nos. CP88-6-002 and RP88-8-008, United Gas Pipe Line Company
 CAG-63.
 Docket No. CP87-474-004, Great Lakes Gas Transmission Company
 CAG-64.
 Docket Nos. CP87-479-003, 009, 010, CP87-480-005, 006 and 007, Wyoming-California Pipeline Company
 CAG-65.
 Docket No. CP83-140-005, K N Energy, Inc.
 CAG-66.
 Docket No. CP88-255-002, Transcontinental Gas Pipe Line Corporation
 CAG-67.
 Docket Nos. CP88-696-001 and 002, Midwestern Gas Transmission Company
 CAG-68.
 Docket Nos. CP86-725-001 and 002, United Gas Pipe Line Company and Trunkline Gas Company
 CAG-69.
 Docket No. CP84-348-006, Mississippi River Transmission Corporation
 CAG-70.
 Docket No. CP88-375-000, East Tennessee Natural Gas Company
 CAG-71.
 Docket No. CP88-154-000, Columbia Gas Transmission Corporation
 CAG-72.
 Docket No. CP88-137-000, ANR Pipeline Company
 CAG-73.
 Docket No. CP88-805-000, Great Lakes Gas Transmission Company
 CAG-74.
 Docket No. CP88-475-000, El Paso Natural Gas Company
 CAG-75.
 Docket No. CP88-643-000, Colorado Interstate Gas Company
 CAG-76.
 Docket No. CP88-272-000, United Gas Pipe Line Company
 CAG-77.
 Docket No. CP84-31-004, Texas Gas Transmission Corporation and CSX NGL Corporation
 CAG-78.
 Docket No. CP87-107-000, Midwestern Gas Transmission Company
 CAG-79.
 Docket No. RP88-174-001, Dynasty Gas Marketing, Inc. v. Northern Border Pipeline Company
 Docket No. RP88-195-002, Northern Border Pipeline Company
 CAG-80.
 Docket No. RP88-14-017, Columbia Gulf Transmission Company
 Docket No. RP88-15-017, Columbia Gas Transmission Corporation
 CAG-81.
 Docket No. TM89-3-28-000, Panhandle Eastern Pipe Line Company

I. Licensed Project Matters

- P-1.
 Project No. 9711-000, Inghams Corporation. Order regarding third-party permit application for existing project not required to be licensed.
 P-2.
 Project No. 9712-000, Beardslee Corporation. Order regarding third-party permit application for existing project not required to be licensed.

II. Electric Rate Matters

- ER-1.
 Docket Nos. EF87-2011-002, 006, 009, EF87-2021-001 and 004, United States Department of Energy—Bonneville Power Administration. Order concerning 1987 rate filings.
 ER-2.
 Docket Nos. EC88-2-000 and 003, Utah Power and Light Company, PacifiCorp and PC/UP&L Merging Corporation. Order on rehearing.
 ER-3.
 Docket No. ER79-97-002, Alamito Company. Order on reasonableness of fuel charges.
 ER-4.
 Docket Nos. EL86-26-002 and ER87-47-001, San Diego Gas and Electric Company v. Alamito Company. Opinion and order on initial decisions concerning capital structure and rate of return.

Miscellaneous Agenda

- M-1.
 Reserved
 M-2.
 Reserved
 M-3.
 (A) Docket No. RM87-5-001, Inquiry into Alleged Anticompetitive Practices Related to Marketing Affiliates of Interstate Pipelines. Order on rehearing.
 (B) Docket No. RM87-5-002, Inquiry into Alleged Anticompetitive Practices Related to Marketing Affiliates of Interstate Pipelines. Order on clarification of Order No. 497.
 M-4.
 Docket No. RM89-2-000, Blanket Sales Certificates for First Sellers of Natural Gas Docket No. RM88-20-000, 5-Year Take-or-pay Make-up Provisions in Natural Gas Producer Pipeline Contracts. Notice of proposed rulemaking.

I. Pipeline Rate Matters

- RP-1.
 (A) Docket Nos. CP88-391-000 and RP88-167-000, Transcontinental Gas Pipe Line Corporation. Order concerning certificate application for gas inventory charge, standby service and firm storage authorization.
 (B) Docket Nos. CP89-759-000, CP88-391-000 and RP88-167-000, Transcontinental Gas Pipe Line Corporation. Order concerning authorization for interruptible sales service.
 RP-2.
 Docket Nos. RP85-177-057 and CP88-136-002, Texas Eastern Transmission Corporation. Order on rehearing.
 RP-3.
 Docket Nos. RP84-94-000 and RP85-66-000,

Trailblazer Pipeline Company. Opinion and order on initial decision.

II. Producer Matters

- CI-1.
 Reserved

III. Pipeline Certificate Matters

- CP-1.
 Reserved
 Lois D. Cashell,
 Secretary.
 [FR Doc. 89-5802 Filed 3-9-89; 2:47 pm]
 BILLING CODE 6717-01-M

TENNESSEE VALLEY AUTHORITY

Meeting No. 1414

TIME AND DATE: 10 a.m. (c.s.t.),
 Wednesday, March 15, 1989.

PLACE: Andrew Johnson Theater,
 Tennessee Performing Arts Center, 505
 Deaderick Street, Nashville, Tennessee.

STATUS: Open.

AGENDA

Approval of minutes of meeting held on
 February 15, 1989.

Discussion Item

1. TVA Staff will report on Regional
 Ozone—A Southern Perspective

Action Items

New Business

A—Budget and Financing

- A1. Adoption of Supplemental Resolution
 Authorizing 1989 Series A Power Bonds.
- A2. Resolution Authorizing the Chairman
 and Other Executive Officers to Take Further
 Action Relating to Issuance and Sale of 1989
 Series A Power Bonds.
- A3. Retention of Net Power Proceeds and
 Nonpower Proceeds and Payments to the U.S.
 Treasury in March 1989, Pursuant to Section
 26 of the TVA Act.
- A4. Board Adoption of the Tennessee
 Valley Authority Financial Statements,
 September 30, 1988.
- A5. Modification to Fiscal Year 1989 Power
 Capital Budget—Wilson, Tennessee, 500-kV
 Substation to Replace High-Side Coils of 500-
 kV Spare Transformer.

C—Power Items

- C1. Letter Agreement with Tallahatchie
 Valley EPA for Power Supply to Grenada and
 Hardy, Mississippi, Areas.
- C2. Revision to 5 Percent Interruptible
 Power Arrangements.

E—Real Property Transactions

- E1. Sale of Permanent Easement Affecting
 0.73 Acres of Ocoee No. 1 Railroad Right-of-
 Way in Polk County, Tennessee.
- E2. Abandonment of Easement Rights to
 Polk County Board of Education Affecting 294
 Acres of Polk County Board of Education
 Property Located Near Apalachia Dam in
 Polk County, Tennessee.
- E3. Grant of 30-Year Easement to Bluff
 City, Tennessee, Affecting Approximately 4

Acres of Boone Reservoir Land in Sullivan County, Tennessee.

E4. Proposed 19-Year Lease Agreement with Tennessee Wildlife Resources Agency Affecting Approximately 13.1 Acres of Norris Reservoir Land and 1.3 Acres of Melton Hill Reservoir Land in Anderson County, Tennessee.

E5. Sale of Term Easement for Marine Repair and Fabrication Facility Affecting Approximately 5.99 Acres of Pickwick Reservoir Land in Tishomingo County, Mississippi.

E6. Deed Modification to the Anderson County Sportsman's Club Affecting Approximately 2.3 Acres of Norris Reservoir Land in Anderson County, Tennessee.

E7. Proposed 30-Year Easement to Colbert County Commission Affecting Approximately 12.13 Acres of Pickwick Reservoir Land in Colbert County, Alabama.

E8. Proposal to Lease TVA Land for the Commercial Operation of Running Water Recreation Area on Nickajack Reservoir in Marion County, Tennessee.

F—Unclassified

F1. Supplement No. 15 to Personal Services Contract No. TV-81664A with Massachusetts Institute of Technology.

F2. Filing of Condemnation Cases.

F3. Supplement No. 12 to Personal Services Contract No. TV-53532A with Hartford Steam Boiler Inspection and Insurance Company.

F4. 1990 Corporate Environmental Agenda.

CONTACT PERSON FOR MORE

INFORMATION: Alan Carmichael, Manager of Public Affairs, or a member of his staff can respond to requests for information about this meeting. Call (615) 632-8000, Knoxville, Tennessee. Information is also available at TVA's Washington Office (202) 479-4412.

Dated: March 8, 1989.

Edward S. Christenbury,

General Counsel and Secretary.

[FR Doc. 89-5781 Filed 3-9-89; 10:52 am]

BILLING CODE 8120-01-M

THE UNITED STATES INSTITUTE OF PEACE

DATE: Thursday, March 16, 1989.

TIME: Thursday 10:00 a.m. to 5:30 p.m.

PLACE: The United States Institute of Peace, 1550 M Street, NW ground floor (conference room).

STATUS: Open session—Thursday 10:00 a.m. to 5:30 p.m. (portions may be closed pursuant to subsection (c) of section 552(b) of title 5, United States Code, as provided in subsection 1706(h)(3) of the United States Institute of Peace Act, Pub. L. (98-525).

AGENDA (Tentative):

Swearing-in ceremony for Dr. Alan Weinstein at 9:00 a.m. in the West Conference Room The United States Supreme Court (Open to the Public).

Meeting of the Board of Directors convened. Chairman's Report. President's Report. Committee Reports. Consideration of the minutes of the Thirtieth meeting. Consideration of grant application matters.

CONTACT: Ms. Olympia Diniak. Telephone (202) 457-1700.

Dated: March 8, 1989.

Bernice J. Carney,

Administrative Officer, The United States Institute of Peace.

[FR Doc. 89-5887 Filed 3-9-89; 3:24 pm]

BILLING CODE 3155-01-M

Corrections

Federal Register

Vol. 54, No. 47

Monday, March 13, 1989

This section of the FEDERAL REGISTER contains editorial corrections of previously published Presidential, Rule, Proposed Rule, and Notice documents and volumes of the Code of Federal Regulations. These corrections are prepared by the Office of the Federal Register. Agency prepared corrections are issued as signed documents and appear in the appropriate document categories elsewhere in the issue.

FEDERAL RESERVE SYSTEM

12 CFR Part 208

[Regulation H; Docket No. R-0660]

Membership of State Banking Institutions in the Federal Reserve System; Investment in Stock of Investment Companies

Correction

In rule document 89-3714 beginning on page 7180 in the issue of Friday, February 17, 1989, make the following corrections:

§ 208.124 [Corrected]

1. On page 7181, in the 2nd column, in § 208.124(b), in the 23rd line, before "12" remove the parenthesis.

2. On page 7182, in the first column, in § 208.124(c)(8)(ii), in the eighth line, "determined" was misspelled.

3. On the same page, in the second column, in footnote ¹, in the last line, "SVC." should read "Svc."

BILLING CODE 1505-01-D

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 184

[Docket No. 78N-0349]

Certain Glycerides; Affirmation of Gras Status

Correction

In rule document 89-3935 beginning on page 7401 in the issue of Tuesday, February 21, 1989, make the following correction:

§ 184.1903 [Corrected]

On page 7404, in the third column, in § 184.1903(c)(2), in the last line, "§ 170.3(n)(39)" should read "§ 170.3(n)(38)".

BILLING CODE 1505-01-D

VETERANS ADMINISTRATION

38 CFR Part 4

Systemic Diseases, Temporary Total Evaluations Based on Periods of Hospitalization or Surgery, Regular Schedular Assignment of a Total Evaluation Based on Total Industrial Impairment

Correction

In rule document 89-2003 beginning on page 4280 in the issue of Monday, January 30, 1989, make the following correction:

On page 4282, in § 4.88a, in the second column, under "6318 Melioidosis", in the fourth line, "military" should read "miliary".

BILLING CODE 1505-01-D

Federal Register

**Monday
March 13, 1989**

Part II

Department of Transportation

Federal Aviation Administration

**14 CFR Parts 121 and 135
Exit Row Seating; Notice of Proposed
Rulemaking**

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 121 and 135

[Docket No. 25821; Notice No. 89-8]

RIN: 2120-AC75

Exit Row Seating

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This notice proposes to regulate exit row seating aircraft operated by U.S. air carrier and commercial operators (certificate holders). This is needed to ensure that only persons who are determined by the certificate holder to be able, without assistance, to activate an emergency exit and to take the additional actions needed to ensure safe use of that exit in an emergency are seated in exit rows. This action is intended to further safety for all passengers.

DATE: Comments must be received on or before June 12, 1989.

ADDRESSES: Comments on this notice may be mailed, in triplicate, to: Federal Aviation Administration, Office of the Chief Counsel, Attn: Rules Docket (AGC-10), Docket No. 25821, 800 Independence Avenue, SW., Washington, DC 20591. Comments delivered must be marked Docket No. 25821. 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: Ms. Irene H. Miels or Mr. John Walsh, General Legal Services Division (AGC-100), Office of the Chief Counsel, 800 Independence Avenue, SW., Washington, DC 20591. Telephone: (202) 267-3473.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Comments relating to the environmental, energy, or economic effects that might result from adoption of the proposals contained in this notice are invited. Communications should identify the regulatory docket or notice number and be submitted in duplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made:

"Comments to Docket No. _____." The postcard will be dated and time stamped and returned to the commenter.

All communications received on or before the closing date for comments will be considered by the Administrator before taking action on the proposed rule. The proposal contained in the notice may be changed in light of comments received. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each substantive public contact with FAA personnel concerning this rulemaking will be filed in the docket.

Availability of NPRM

Any person may obtain a copy of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the Federal Aviation Administration, Office of Public Affairs, Attention: Public Inquiry Center, APA-430, 800 Independence Avenue, SW., Washington, DC 20591, or by calling (202) 267-3484. Requests must identify the notice number of this NPRM. Persons interested in being placed on the mailing list for future NPRM's also should request a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedures.

In an effort to make this information available in an accessible format to individuals who are blind or visually impaired and to other individuals who are print handicapped, the FAA will make available for copying a number of audio cassette tapes of the entire NPRM (and the accompanying initial regulatory evaluation) in the FAA Rules Docket, Room 915G, FAA Headquarters, 800 Independence Avenue, SW., Washington, DC. In addition, single cassette tapes will be available in the Public Affairs Offices of the agency's nine regional headquarters; at the Mike Monroney Aeronautical Center, Oklahoma City, Oklahoma; and at the FAA Technical Center, Atlantic City, New Jersey.

Summary of Proposed Rule

A passenger aircraft crashes. Inside the cabin, there are many survivors. A fire begins. If the passengers are to stay alive, they must get out of the aircraft as soon as they can. Seconds mean the difference between life and death. This is the scenario on which a crashworthiness standard is based. Many other FAA rules attempt to prevent a crash from ever happening. A crashworthiness rule assumes that a survivable crash has happened and then

asks what can be done to maximize people's chances of getting out alive.

This proposed rule on exit row seating concerns a crashworthiness standard. Exit doors must be opened quickly and properly if an emergency evacuation is to succeed. Often, crewmembers are not in a position to lead this part of the evacuation. Passengers sitting near the doors must perform the functions on which their lives, and the lives of their fellow passengers, depend.

What are some of these functions? First, a passenger must be able to locate the door and quickly follow the instructions for using it. Door operations and instructions differ from airplane to airplane. A delay in figuring out how to operate the door can cost precious seconds; operating it improperly can injure or result in the deaths of passengers. Second, a passenger must be able physically to open the door. Doors are often heavy and clumsy to manipulate, and not every passenger can open them quickly.

Third, a person must be able to determine when to open the door. This involves being able to respond to shouted or hand-signaled instructions from flight attendants, as well as being able to tell when opening an exit would be too dangerous (e.g., because of fire on the adjacent wing). Fourth, a person must be able to go quickly through the open exit, so as not to cause a traffic jam at the door, and perhaps assist other passengers to leave the danger zone around the aircraft. Fifth, a passenger must devote full attention to his or her emergency task. A passenger who must care for small children, for example, may be unable to do so.

The proposed rule says simply that airlines should seat in exit rows only persons who appear able to perform these and other relevant functions in an emergency evacuation. Persons who cannot perform all the functions may sit in any other seat. Airlines also would have to take new steps to inform passengers sitting in exit rows about what they would have to do in an emergency evacuation. By following the proposed requirements, airlines would minimize the likelihood of passenger-caused evacuation delays that could cost lives.

The rule would result in some persons being seated in seats other than those in exit rows, based on the application of neutral, functional criteria. For example, young children, persons who were too large or too small, persons with some disabilities, and elderly persons who are physically frail would be seated in a location other than an exit row.

Background

The Air Carrier Access Act of 1986 ("the Act") (Pub. L. 99-435, October 2, 1986) prohibits discrimination in air transportation on the basis of handicap. The Act also requires that measures taken to eliminate such discrimination take into account the safety of all passengers. Specifically, it provides:

(c) (1) No air carrier may discriminate against any otherwise qualified handicapped individual, by reason of such handicap, in the provision of air transportation.

(2) For the purposes of paragraph (1) of this subsection the term "handicapped individual" means any individual who has a physical or mental impairment that substantially limits one or more major life activities, has a record of such an impairment, or is regarded as having such an impairment.

Sec. 3. Within one hundred and twenty days after the date of enactment of this Act, the Secretary of Transportation shall promulgate regulations to ensure non-discriminatory treatment of qualified handicapped individuals consistent with the safe carriage of all passengers on air carriers.

In order to formulate regulatory proposals implementing the Act, the Secretary of Transportation formed an advisory committee consisting of representatives from groups of persons with disabilities, the Government, and the air transportation industry (52 FR 19881; May 28, 1987). The Committee began meeting on June 3, 1987, under the guidance of the Federal Mediation and Conciliation Service and was scheduled to present its recommendations to the Secretary in December 1987.

The Committee was unable to reach a consensus regarding a recommendation on exit row seating, which had been an issue of some concern to the Committee. Consequently, the Department had the responsibility of proposing for its own provision on this subject, which it did in a notice of proposed rulemaking (NPRM) published June 22, 1988 (53 FR 23574). Concerning exit row seating, that NPRM proposed that carriers be prohibited from excluding persons from any seat on the basis of handicap, except in order to comply with an FAA safety rule. This FAA NPRM, amending 14 CFR Parts 121 and 135, proposes restrictions on exit row seating on the basis of neutral, nondiscriminatory criteria applicable to all passengers. The statutory authority for Part 121 is 49 U.S.C. 1354(a), 1355, 1356, 1357, 1401, 1421-1430, 1472, 1485, and 1502; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983). The statutory authority for Part 135 is 49 U.S.C. 1354(a), 1355(a), 1421-1431, and 1502; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

Previous FAA Rulemaking Activity

Exit row seating has been the subject of FAA rulemaking in the past. In Notice 74-25 (July 2, 1974; 39 FR 24667), the FAA proposed a regulation, § 121.584, which would have provided that a handicapped person capable of traveling alone (e.g., a blind or a deaf person) could not be denied transportation so long as the person could be seated in any seat other than:

The two seats nearest an exit, and any seat in a row immediately adjacent to an exit with the exception of the farthest seat from the exit in that row.

In other words, the two seats nearest an exit would have been unavailable to all handicapped persons in all cases, and other seats in an exit row would have been unavailable as well, depending on the length of the row, with the exception of the seat farthest from the exit.

That proposal was not adopted. The FAA chose instead to adopt in Amendment 121-133 a rule allowing each certificate holder to develop procedures appropriate to its own operations and aircraft (42 FR 18392; April 7, 1977). The FAA, however, issued an advisory circular (AC 120-31; March 25, 1977, the same date as Amendment 121-133) to assist certificate holders in developing their own procedures, which provided guidance on seating.

Paragraph 9 of the advisory circular states:

9. SEATING HANDICAPPED PASSENGERS. FAA's Civil Aeromedical Institute has conducted research to determine where handicapped passengers should be seated in an aircraft operated under Parts 121 and 135 so that, in the event of an emergency evacuation, they can leave the aircraft, either unassisted or assisted, by the safest and most expedient route while not slowing the evacuation.

a. Those nonambulatory handicapped passengers should be seated in aisle seats where they would be near the end of lines of passengers being evacuated through floor-level, nonoverwing exits. Tests revealed that due to the narrow aisle width, an accompanying attendant trying to lift the handicapped person would temporarily block the aisle and hinder other passengers attempting to evacuate. Once the mainstream of evacuating passengers has passed, the attendant and the handicapped passenger can normally catch up to the flow since there is a bunching at the exit. Two nonambulatory passengers with attendants should not be seated directly across the aisle from each other because their attendants would interfere with each other while attempting to remove the nonambulatory passengers from their seats.

b. To determine the amount of assistance nonambulatory passengers will require to evacuate the aircraft, an agent should first ask the passengers what their capabilities

are. If there is some question as to whether an individual is ambulatory or nonambulatory, the agent may ask him to perform a simple test such as transferring from a wheelchair, unaided, to another seat. Additionally, the passenger may furnish evidence of his capability, such as a driver's license or a statement signed by a qualified professional person (e.g. a physician or physical therapist).

c. Ambulatory handicapped passengers should be seated in areas in which evacuation would normally occur through a floor-level, nonoverwing exit.

The FAA's intent, in issuing this rule and advisory circular, was that carriers would adopt reasonable seating policies consistent with the FAA's advice and consequently, to a significant extent, consistent with other carriers' policies.

The FAA's experience, including a review of a large number of carrier policies carried out in connection with the work of the advisory committee, suggests that FAA's intent has not been realized fully. Some carriers have not established seating policies fully consistent with the advisory circular. Carrier policies appear to be inconsistent with one another in a number of cases. Further, information available to the Committee shows that certificate holder personnel, in excluding persons from those seats, may have done so in the mistaken notion that an existing FAA regulation required it or may have alluded to a non-existent regulation to "settle the argument." This, in turn, has led to increased pressure to remove restrictions on seating handicapped persons in exit rows. Under these circumstances, the FAA has determined that it is necessary to consider regulatory requirements concerning exit row seating.

The need to review and reconsider the FAA position is heightened by the provision of the Air Carrier Access Act NPRM, referred to above. Concerning seat assignments, proposed § 382.31 states:

Carriers shall not exclude any person from a seat in an exit row or other location or require that a person sit in a particular seat, on the basis of handicap, except in order to comply with the requirements of an FAA safety regulation.

This formulation contemplates consideration of an FAA proposal on this subject. Unless the FAA promulgates a safety regulation on exit row seating, the proposed provision of the rule implementing the Air Carrier Access Act would abolish all air carrier seating policies in effect, and it would prohibit the institution of new ones, regardless of valid safety considerations. For all the foregoing

reasons, the FAA has determined to reexamine the issue of exit row seating.

Findings of Civil Aeromedical Institute Studies

The FAA reviewed in detail the results of research conducted by the FAA's Civil Aeromedical Institute (CAMI) to assess the effects of handicapped passengers aboard an aircraft during an emergency evacuation. CAMI's project was undertaken in response to the Civil Aeronautics Board's (CAB) request for clear safety standards in this area. Basically, the position of the CAB in 1972 was similar to that of the FAA today. It recognized that handicapped persons were encountering inconsistent practices and policies in the provision of air carriage. The CAB recommended that appropriate actions be taken, looking towards the issuance of safety regulations on this pressing problem. "Flight Standards Technical Division Report on Air Transportation of Handicapped Persons," June 1973, p. 3.

As discussed further herein, the FAA elected not to regulate directly, in regard to exit row seating or other issues relating to the carriage of handicapped persons. Instead, it issued § 121.586 of the Federal Aviation Regulations (FAR), "Authority to refuse transportation," which allows air carriers to establish their own procedures for persons who may need assistance in an emergency evacuation.

In light of the FAA's experience under the current regulation, FAA finds that the CAMI research supports restrictions on exit row seating. A CAMI report on the subject states that:

The average ambulatory handicapped passenger appears to possess adequate mobility for escape. He could be seated anywhere in the cabin except in an exit row or a primary overwing exit route . . . "Emergency Escape of Handicapped Air Travelers," Report FAA-AM 77-11, July 1977, p. 36.

[A copy of this report has been entered in the Regulatory Docket].

This report was prepared for possible publication in scientific journals and, therefore, included certain observations and tests conducted by the researchers that were not contained in the 1973 report by the FAA's Flight Standards Service, "Air Transportation of Handicapped Persons," Project Report No. 73-740-120A. Although both reports are based on the tests conducted in 1973, only the 1973 report, which contains no direct conclusions on exit row seating, was available at the time Amendment 121-133 was adopted.

The research does make a number of findings relevant to the seating of

persons with disabilities. The agency simply did not have available the full, considered opinions of the researchers at the time Amendment 121-133 was adopted. Among the research findings are the following:

In proceeding to exit doors from given seats, handicapped persons exceeded the exit time of unimpaired people by 22 to 1,189 percent.

Id., Tables 1 and 2, at 6, 7.

Persons with disabilities increased the exit time through floor-level exits in all cases, ranging from 3.9 seconds to 49.8 seconds. In the case of window exits, the increases ranged from 3.4 to 42.5 seconds.

Id., Tables 10 and 11, at 31 and 32.

In general, evacuation times increased as the number of handicapped subjects was increased. Researchers found the increase to be most significant in the totally handicapped category, less significant in the lower limb and partial immobility category, and least significant in the upper limb and sensory handicap category. Increases occurred, however, in all categories.

Id., at 29.

Although the time needed to evacuate anthropomorphic dummies was somewhat higher than would have been the case for most human beings, the times required by actual persons with disabilities also were greater than those of the able persons.

Id., at 29.

In regard to evacuation times, § 121.291(a) of the FAR requires all certificate holders to demonstrate that each type and model of airplane with a seating capacity of more than 44 passengers can be evacuated in 90 seconds or less. The evacuations must be conducted in accordance with Appendix D to Part 121 of the FAR, which calls for the tests to be conducted with a representative passenger load of persons in normal health. At least 30 percent must be females; at least 5 percent must be over 60 years of age with a proportionate number of females; at least 5 percent but not more than 10 percent must be children under 12 years of age, prorated through that age group. Three life-size dolls, not included as part of the normal passenger load, must be carried by passengers to simulate live infants 2 years old or younger. Crewmembers, mechanics, and training personnel, who maintain or operate the airplane in the normal course of their duties, may not be used as passengers. Other conditions also must be representative, such as the seating density and arrangements, carry-on baggage, etc., but only 50 percent of the emergency exits can be made available.

Rapid evacuation is necessary, of course, due to the hazards of fire,

smoke, explosion, and flooding in the event of an inadvertent water landing. It is vital, therefore, to minimize delays in every possible way. In the CAMI study, the researchers concluded that seating location could be used to minimize the delays. Clearly, it would be neither desirable nor feasible to limit passenger loads to those "in normal health," as in the emergency evacuation demonstrations required for transport category airplane certification. On the other hand, persons with handicaps should not be exposed to injuries that can be avoided nor should they impede the evacuation of other passengers. Instead, they should be seated where these dangers are minimized.

In the CAMI studies, information for the study of seat location was drawn from a variety of tests. These included: (1) An evaluation of individuals with handicaps, where individuals moved from one of three designated seat locations to a specific exit; (2) evaluation of handicapped passengers who required assistance to move to an exit; (3) evaluation of the evacuation of totally incapacitated passengers; (4) evaluation of the evacuation of grouped handicapped passengers; (5) evaluation of mixed group evacuations; (6) evaluation of the effect of exit configuration on evacuation; and (7) a separate evaluation of the evacuation of a paraplegic subject. *Id.*, at 4 through 28.

Subjects were recruited from a variety of sources. Nonhandicapped subjects were FAA employees or were hired through the University of Oklahoma Office of Research Administration. Most handicapped subjects were recruited from participating organizations, such as the Oklahoma Foundation for the Disabled, the Oklahoma League for the Blind, the United Cerebral Palsy Rehabilitation Workshop of Greater Oklahoma City, and The Carver School. *Id.*, at 2.

One hundred sixty-two subjects, ranging in age from 15 to 84 years, participated. Eight had disabilities resulting from cerebral palsy; four from arthritis; three from polio; four from multiple sclerosis; two from muscular dystrophy; and five from birth defects. Eighteen were paraplegics; 2 were quadriplegics; and 15 were hemiplegics. Twelve were classified as elderly, either on the basis of age alone or on their physical condition. Their ages ranged from 55 to 84. Fifteen were blind; one was classified as legally blind; and eight were partially sighted. In addition, 22 normally-sighted persons performed as simulated blind passengers. Two were in casts and seven had fractures, amputations, or breaks that had mended

poorly and affected their mobility. Seventeen had mental deficiencies and 7 had mental illnesses (depression or schizophrenia). Two had no handicap and were capable of speed running. Four were obese, and four were deaf. *Id.*, Appendix B.

Especially relevant to this proposed rulemaking are the results of the CAMI tests on group evacuations. The research team found that seating of handicapped passengers in a normal passenger population during normal flight conditions results in, at most, an occasional minor inconvenience to other passengers. They found, however, that under circumstances where the passenger cabin must be speedily evacuated, placement of the handicapped passengers becomes important.

Information for the study of seat location was drawn from three test series: using an actual handicapped passenger in a passenger population of 24; using simulated handicapped passengers in a passenger population of 23; and using simulated handicapped passengers in a passenger population of 50. The simulated passengers were anthropomorphic dummies, to avoid injury to persons with actual disabilities.

Five tests involving the actual handicapped person, who required an assistant to carry him from the plane, showed that better evacuation times generally resulted when the handicapped passenger and his assistant were seated away from the exit. This enabled the assistant to position the handicapped person on his back properly, without delaying passengers behind him and without experiencing difficulties himself, due to crowding and shoving. *Id.*, at 19.

In tests involving subjects simulating total incapacitation, one man assisting a fairly light dummy worked skillfully into the flow of passengers without delay. Evacuation of a 200-pound dummy from a seat near the exit was more difficult, and a delay of about 3 seconds resulted. *Id.*, at 19.

Placing the dummies at the farthest point from the exit, the extreme end of the passenger population, allowed the cabin attendant to establish a good evacuation flow immediately. The total evacuation of 23 live passengers took only 25.04 seconds. There was little delay in this test because most passengers were not detained by the action required to move the dummies and because their assistants had ample time to position them for transport while the forward line of passengers was evacuating. *Id.*, at 23.

When the simulated handicapped persons were placed in forward positions, only 6 passengers (including 2 dummies) exited in the same time (20 seconds) that 17 passengers exited when the dummies were placed at the farthest point from the exit. *Id.*, at 23.

Passengers with upper limb and sensory handicaps had the least delaying effect on passenger flow times once their seatbelts were released. *Id.*, at 34. The tests, however, measured only their capacity to move from their seats to an exit under optimum conditions. To safeguard the subjects, none were asked to use evacuation slides. None were asked to open emergency exits and to perform the other tasks addressed herein, all of which are much more demanding than the relatively simple task of leaving a seat and moving forward to an exit without the dangers of flame, smoke, debris, and panic.

It has been suggested by some persons that there may be little or no relationship between a passenger's rate of movement from a seat to an emergency exit and his or her ability to open the exit and perform the other functions stated in the proposed rule. The FAA requests commenters to provide copies of any studies that support that thesis. The CAMI studies do not point to that conclusion.

Videotapes of the experiments, which are discussed further herein and copies of which have been placed in the docket, show the effect of various disabilities on movement from the seats to the doors. In many cases, it is readily apparent that the cause of slow progress, such as the immobilized arm of a stroke victim, also would affect the person's ability to open a door.

The videotapes also show that some passengers with a fairly good rate of movement down an aisle would have trouble, nevertheless, opening the door. A paraplegic with strong shoulders and arms, for example, could drag himself or herself toward the exit but would not have the stability to stand and remain upright to operate the door or window mechanisms.

The tests revealed that evacuation of the control group (persons with no handicaps) consistently was faster than that of groups with handicaps. Further, the evacuation time increase in all handicapped groups, when the evacuation test involved a window exit rather than a floor-level exit. It is significant that this rather modest increase in complexity, from a floor-level to a window exit test, resulted in increased evacuation times.

It is logical to conclude that additional complexity, such as finding and operating mechanisms, would impose

additional burdens on persons with handicaps and cause delays.

Given the results of the tests, the researchers concluded that the average ambulatory handicapped passenger could be seated anywhere in the cabin except in an exit row or an overwing exit route, where he or she might impede the early stages of an evacuation or be injured by the rush of other passengers. This approach, which differs from that originally proposed in Notice 74-25 in 1974, serves as the basis for the present proposal. *Id.*, at 36.

Further, the researchers also found that "if nonambulatory passengers are seated in a group, the group should be seated in the cabin so that they, and their assistants, would be at the end of a line of evacuees so as not to interfere with the evacuation of other passengers and to avoid crowding by other passengers during their preparation for evacuation." *Id.*, at 36. Clearly, this preferred seating position for nonambulatory persons is incompatible with sitting in an exit row, which by nature is at the beginning of a line of evacuees.

It should be noted that seating "at the end of a line of evacuees" does not necessarily mean being seated at the back of the airplane or being the last person to evacuate. The location of the emergency exits determines the end of the line. Between a forward exit door and a window exit, for example, it is likely that two exit flows will develop—one toward the door and one toward the window. The break between the two flows will tend to come at midpoint between the two exits.

While it always is possible that one of the exits will become inoperable in an emergency, thereby changing the anticipated passenger flow, the FAA studies show that the seating proposed results in the expeditious evacuation of the greatest number of passengers.

The question has arisen as to whether certificate holders should ensure that at least one seat is occupied in each emergency exit row. The FAA does not believe that such a requirement is necessary. Nearby passengers who are able to perform the necessary functions could move into an empty row rapidly to perform the necessary functions.

It also has been suggested that the seats in all exit rows be removed or the aisles widened. The FAA does not believe that either approach would remove the need for positioning persons capable of performing the necessary functions near enough to the emergency exits to perform the evacuation functions that may be required.

Additional Research

In addition to reviewing the CAMI documents, FAA staff took part in recurrent flight attendant training during October 1987 to observe and experience first-hand an evacuation drill at a major certificate holder. The information available from this training program was instructive. In the training devices of this certificate holder alone, there were at least 11 types of doors or emergency exits, each of which required varying degrees of strength and agility to open and each of which operated somewhat differently from the others. It is reasonable to conclude that, given the differences in operating instructions and techniques, sight also would play a major role in successfully opening the door or exit in a timely fashion.

In addition, the FAA reviewed scenes from a videotape, made at the time of the 1973 CAMI study, which showed actual, as well as simulated, handicapped persons, in the process of evacuating a simulated transport category airplane fuselage section. While the study's statistics provide ample evidence of the difference between the evacuation times of passengers with and without disabilities, the film provides very graphic evidence of the difficulties of movement associated with certain types of disabilities. These tapes are also made part of the rulemaking docket.

The FAA also reviewed a study completed in October 1970, by the Office of Aviation Medicine of the FAA, entitled, "Survival in Emergency Escape from Passenger Aircraft." (Document No. AM 70-16). This document discusses human factors relating to survival in emergency escapes from passenger aircraft. Data was secured from three actual accidents, with a total of 261 passengers, 105 of whom lost their life.

The accidents involved a United Airlines DC-8, which crashed during a landing at Stapleton Field, Denver; a United Airlines Boeing 727, which crashed at Salt Lake City Municipal Airport; and a Trans World Airlines (TWA) Boeing 707-331, which crashed on takeoff from Fiumicino Airport in Rome, Italy. The study, a copy of which has been entered in the Regulatory Docket, deals in detail with the emergency evacuations; the behavior of the passengers; their seat locations, the age, sex, and other characteristics of the passengers; the causes of death or injury, and the effect of the crashes on the emergency exits.

This study concluded that:

In aircraft accidents in which decelerative forces do not result in massive cabin destruction and overwhelming trauma to

passengers, survival is determined largely by the ability of the uninjured passenger to make his way from a seat to an exit within time limits imposed by the thermotoxic environment.

(Emphasis added.) *Id.* at 57.

That is, it is crucial that people evacuate quickly before heat, flames, toxic fumes, or an explosion kill or injure them.

In addition, the FAA reviewed a "Protection and Survival Laboratory Memorandum," No. AAM-119-87-6, dated November 5, 1987, based on CAMI "Accident/Incident Bio-Medical Data Reports." This memorandum has been placed in the rulemaking docket. At the time of the November 5, 1987, memorandum, the CAMI Cabin Safety Data Bank contained 3,382 entries. Of these, 132 pertained to problems of persons with handicaps or with characteristics that are likely to affect their ability to activate an emergency exit and to take the additional actions needed to ensure safe use of that exit in an emergency. The memorandum focused on 50 of these entries. While information in such a document is subject to additional evaluation or change on review of the data, conduct of additional testing, or receipt of additional facts, the memorandum lends support to the CAMI conclusions regarding problems encountered by the disabled and others during evacuation. The FAA also reviewed the 50 entries individually. All included problems affecting persons with disabilities, handicaps, the aged, children, the obese, and others having characteristics which could affect the evacuation process.

While the memorandum included some reports of successful, rapid evacuation by persons with disabilities, the reports show rather dramatically that certain factors generally impede rapid evacuation—advanced age or extreme youth; parental responsibilities for minors; physical disabilities; obesity; injury or ill health, etc. Many of the persons impeded by these factors required the assistance of others to escape.

It should be noted that in seven of the above cases, this assistance was provided by certificate holder crewmembers, persons in related occupations, or persons especially trained for emergencies such as fire, police, and military personnel, while assistance by other passengers was observed in only four of the cases. While it is conceivable that there were more instances of such assistance, the figures are in line with data obtained by the FAA in its study of three major aircraft accidents. The FAA found that while still aboard, passengers usually

did not attempt to help others unless they were members of their own family. "Survival in Emergency Escape from Passenger Aircraft, AM 70-16, October 1970," at 15 and 86.

In regard to assistance to handicapped passengers, the CAMI researchers found:

Assisting handicapped passengers in an aircraft cabin is difficult because of space limitations generated by the seat configurations. Fixed armrests, restrictive seat pitch (distance between similar points on seats), and restrictive aisle widths made assistance difficult and interfered with movement. Passenger congestion also interfered with those assisting handicapped subjects. Assistance in operating the seat belt was necessary for most handicapped subjects, especially those who lacked strength or muscular coordination.

Deaf subjects required visual demonstration or written notes describing what they were expected to do * * * It should be noted that although some deaf passengers could read lips, they missed oral announcements unless they knew to expect them.

Assisting passengers with partial or total paralysis * * * a special problem. The aisle did not provide enough space for an assistant to help directly from the side, and leading these subjects from the front only slightly improved movement rates * * * Carrying would have been necessary to move severely afflicted subjects at an acceptable rate in a survival situation * * *

Cerebral palsy victims vary in degree of mobility limitations. Total or partial inability to coordinate muscular movements limits many of them to a slow, unsteady walk * * * Five of the eight cerebral palsy subjects, who normally used wheelchairs, moved less than 1 ft./s [one foot per second], a rate inadequate for emergency aircraft evacuations.

"Emergency Escape of Handicapped Air Travelers," 1977 document, at 14 through 16.

In regard to passengers who had to be carried, their rate of egress depended upon a number of factors, such as the skill with which their assistants positioned them for carrying, obstructions caused by other passengers, but most important, where they had been seated.

As previously discussed herein, five tests with a paraplegic and an assistant showed that better evacuation times (for evacuees as a whole) generally resulted when the handicapped passenger and his assistant were seated far from the exit since the assistant could position the paraplegic without obstruction and then stay with the flow of traffic.

In one test, a paraplegic passenger was allowed to evacuate the cabin without assistance. The study reports:

He positioned himself in the aisle so that a feet first scoot was possible. Although his movements were quick, he fell behind when traffic really began to move and delayed those behind him about 4 s. The obvious effort to avoid overrunning the paraplegic undoubtedly was a major reason that the total delay was more than 2 s.

Id. at 19.

The FAA notes in this connection that 2 seconds can mean the difference between life and death in the aftermath of a crash inasmuch as evacuation might be terminated abruptly by an explosion at any point. *See, e.g., "Survival In Emergency Escape From Passenger Aircraft," FAA Report AM 70-16, October 1970, at 35-36.*

As a result of the studies and other available data and information, the FAA has concluded that it is more probable than not that persons with handicaps that prevent them from performing certain evacuation functions would be likely to impede emergency evacuation if seated in an exit row. This is especially true in an emergency where an exit row occupant is responsible for opening the exit. The data provide support for the FAA's conclusion that rulemaking is necessary to avoid the establishment or continuation of practices that are in derogation of the safety of all passengers.

Safety Under the Air Carrier Access Act

The Air Carrier Access Act protects the civil rights of handicapped persons and clearly mandates continued concern for safety. Further, safety constituted an important theme in the legislative history. The Senate Report focused on this issue at several points. It states that the statute "does not mandate any compromise of existing DOT or Federal Aviation (FAA) safety regulations." Sen. Rept. 99-400, August 13, 1986, p. 4. The FAA's existing rules allowing carriers to establish their own procedures for persons who may need assistance in an emergency evacuation (§ 121.586 of the FAR) does not cover specifically the role of exit row seating in air safety. Consequently, the FAA now must address the issue directly. In drafting this proposed rule to regulate exit row seating, the FAA has remained mindful of both the words of the Act and the expressed congressional intent regarding safety and civil rights.

The FAA notes, for example, that the Senate Report states that it was intended that the certificate holders will not "impose upon handicapped travelers any regulations or restrictions unrelated to safety and unrelated to the nature and extent of any individual's handicap." *Id.* at 4.

In a statement made on the Senate floor, Senator Robert Dole added:

Our intent * * * is that so long as the procedures of each airline [concerning the transportation of handicapped passengers] are safe as determined by the FAA, there should be no restrictions placed upon air travel by handicapped persons. Any restrictions that the procedures may impose must be only for safety reasons found necessary by the FAA. * * *

Congressional Record, August 15, 1986, at S11785.

This proposed rule follows both the letter and the spirit of the Act and the expressed congressional intent.

It is clear that the principles enunciated by the courts with respect to discrimination under Section 504 of the Rehabilitation Act apply to the Air Carrier Access Act. The legislative history shows that the Congress passed the Air Carrier Access bill specifically to close a gap in the Rehabilitation Act. During consideration of the Senate bill, S. 2703, Senator Dole stated specifically that the purpose of the legislation is to "overturn the recent Supreme Court decision in the case of *Paralyzed Veterans of America versus the Department of Transportation*. This case, which was handed down by the high court in the closing days of its spring term, held that section 504 of the Rehabilitation Act of 1973 'is not applicable' to U.S. carriers, except for those few small regional carriers who receive direct Federal subsidies." Congressional Record, August 15, 1986, at S11784. Senator Alan Cranston and Senator Howard M. Metzenbaum also addressed this point. *Id.* at S11787.

Similarly, in discussing the House version of the bill, H.R. 5274, Congressman John Paul Hammerschmidt stated:

Unfortunately, our efforts on behalf of the handicapped were set back by the recent Supreme Court decision in the case of *Paralyzed Veterans of America versus DOT*. In that case, the Court decided that the Rehabilitation Act, which prohibits discrimination against the handicapped, did not apply to [unsubsidized] air travel * * *

Congressional Record, September 18, 1986, at H7193.

Congressman Gary L. Ackerman expressed similar intent:

As you know, Mr. Speaker, last summer I introduced similar legislation to amend the Federal Aviation Act immediately following the Supreme Court ruling that major airlines cannot be forced to comply with the Rehabilitation Act because they do not receive direct Federal assistance.

Id., at H7194.

Given this recognition of the interrelationship and the Congressional

history of the Air Carrier Access Act, logic requires that the standards set by the Supreme Court in *Southeastern Community College (Davis)* and in *Alexander*, regarding "reasonable accommodation" and "meaningful access," apply to the Air Carrier Access Act as well as to section 504 of the Rehabilitation Act. The seating restriction is narrowly defined, and this proposed regulation would not constitute a barrier to meaningful access to air carrier transportation.

In addition, the proposed rule is in accord with governing judicial decisions. The Supreme Court has held that nondiscrimination on the basis of handicap does not require the imposition of undue financial and administrative burdens, nor does it require modifications that would result in a fundamental alteration of the nature of a program. *Southeastern Community College v. Davis*, 442 U.S. 397 (1979); *American Public Transit v. Lewis*, 665 F.2d 1272 (D.C. Cir. 1981). Various courts have decided that either an undue financial or administrative burden may be used as the basis for refusing to accommodate in a particular manner. *Majors v. Housing Authority of DeKalb County*, 652 F.2d 454, 457 (5th Cir. 1981); *Rhode Island Handicapped Action Committee v. Rhode Island Public Transit Authority*, 549 F. Supp. 592, 610 (D.R.I. 1982), reversed in part, vacated in part, and remanded on other grounds, 718 F.2d 490, (1st Cir. 1983).

In *Alexander v. Choate*, 469 U.S. 287, 105 S.Ct. 712 (1985), the Supreme Court again examined the extent of accommodation required for persons with disabilities, finding that in *Southeastern* a balance was struck between "two powerful but countervailing considerations—the need to give effect to the statutory objectives and the desire to keep section 504 [of the Rehabilitation Act] within manageable bounds." *Alexander*, at 299.

The Supreme Court concluded in *Alexander* that "The balance struck in *Davis* [*Southeastern*] requires that an otherwise qualified handicapped individual must be provided with meaningful access to the benefit that the grantee offers * * * to assure meaningful access, reasonable accommodations in the grantee's program or benefit may have to be made." (Emphasis supplied.) *Alexander*, at 301.

These principles and section 3 of the Act require carriers to ensure meaningful access to air transportation while considering the potential safety impact of seating policies that are necessary to transporting passengers

with the maximum degree of safety. Banning all persons with disabilities from particular seats, or requiring all disabled persons to sit in particular seats, would be unlawful discrimination; but the exclusion of persons with certain disabilities from the seats covered by the rule for legitimate safety reasons does not deprive them of "meaningful access" to air carrier transportation. Exit rows provide only a small fraction of the available seating in the air carrier fleet. The FAA does not propose to bar any persons from seating that does not adversely affect their safety or that of other passengers. Furthermore, the rule specifically provides that a person with a disability cannot be denied transportation as a result of the safety restrictions.

Emergency Evacuations—Exit Row Passenger Functions

From a safety standpoint, a person who sits in an exit row or, in cases where there is no aisle, in any seat that has direct access to an exit must be able to accomplish a number of tasks under a variety of conditions without assistance. These include:

Locating the Exit

In order to be able to locate the exit in an emergency, the passenger in an exit row must be able to comprehend and identify that he/she is in such a row. The primary means of such comprehension and identification is seeing the exit, as well as its placards, and recognizing their significance. Although a person familiar with one or more aircraft seating configurations might be able to recognize that he/she is in an exit row by counting seat rows, that method is not reliable. Seating configurations vary from certificate holder to certificate holder and even from aircraft to aircraft in the same fleet. Further, the ability to remember seating configurations is not something that can be discerned by ordinary means of observation. It would not be practical to expect that a certificate holder assigning seats could identify a person with that ability, or be sure that one who claims such ability actually has it. It has been suggested that special briefings could be given to blind persons to inform them of their exit row occupancy and to familiarize them with the door or window mechanism. During an actual evacuation, however, there is no guarantee that the nearest exit will be operable or should be used. The FAA's study of three major accidents (Report AM-70-16), described previously herein, includes data on this point. In the Denver accident, the left window exits became unusable due to

fire on the wing. Debris blocked the main, rear boarding door. Fire destroyed the slide at the aft galley door after about 20 persons used it. Other passengers then had to jump—a situation with special hazards for blind and other handicapped passengers. In the Salt Lake City accident, fire on the left side of the fuselage drove persons away from the window exits there to the right side instead. In the Rome crash, fire spread to the left side of the aircraft, hampering the escape of passengers from that side. Further, the forward galley door was not used due to fire. "Survival in Emergency Escape from Passenger Aircraft," at 11, 12, 22, 31, and 33. Clearly all passengers benefit if the persons seated in an exit row can determine quickly whether its door or window remains operable or conditions outside allow its use.

Recognizing, Comprehending the Instructions for Use, and Operating the Exit Opening Mechanism

These tasks call for the ability to locate and identify the mechanism and the range and direction of motion required to use the mechanism effectively. They require the ability to perceive and understand the normally available directions pertaining to use of the mechanism. Ascertaining the complete directions for opening an exit often requires observation of both the exit itself, which may have on it a graphic illustration regarding the direction of motion of the mechanism required to open the exit, and a passenger information card and/or video tape presentation. These contain further graphic illustrations of the complete set of actions required for use of the opening mechanism.

It should be emphasized that these presentations rely on graphic displays as well as on words. Reliable oral interpretation of the graphics for the benefit of a blind person by another passenger depends on the ability of the person attempting to convey the information. There would be no practical way to test this in advance. Similarly, relying on another passenger to translate instructions would be impractical in the case of persons who do not speak the same language. In addition, other passengers have no legal duty to convey such information to a handicapped, non-English speaking, or illiterate passenger, and it would not be feasible to require them to demonstrate such an ability.

Further, many passenger information cards focus on main handles of the exit, on the assumption that passengers will be able to see or read further instructions or find adjunct mechanisms.

To illustrate, at the Flight Attendants Recurrent Training Course, the following were noted:

An overwing window exit generally will have a handle marked "Pull" or "Pull Down," but no placard or information concerning the other hand grip which must be located and grasped at the same time as the movable handle. Both must be grasped to enable the person opening the exit window to move it out of the way to prevent blockage of the exit.

Certain operating mechanisms are not integral parts of the exit doors but may be located adjacent to the exit door. Still others have covers, labeled with words indicating they should be removed to allow use of the mechanism in an emergency.

On power-assisted exit doors, in addition to the mechanism for opening it, there often is an arming device located near the opening handle. If activated by mistake, it will prevent the door from opening. Sighted persons can differentiate this handle from the door mechanisms, which are fully labelled. No instructions are provided to passengers in connection with the arming devices because they are intended for crew use only. Yet, their proximity to the opening handles presents a chance that a person, who cannot discern the difference between the two mechanisms, inadvertently could render the exit useless. Once this occurs, it is not reversible without the assistance of trained mechanics.

Several persons have suggested that the locations and types of mechanisms may pose problems for persons other than those with disabilities. They recommend more detailed instructions on both the passenger evacuation cards and near the emergency exits. The FAA invites further comment on this issue.

Assessing Conditions

This requirement includes both sensory and cognitive abilities. The primary sense involved is sight. Cognitive abilities include the capacity to judge danger. Young children, for example, may lack the ability to make the required judgments. Opening an exit in an emergency may increase the danger to which all passengers are exposed, if doing so allows an external fire or even its smoke to enter the cabin. Danger to passengers also can be increased if they are encouraged to use an exit which might open onto dangerous conditions, such as jagged metal, ice, water, unexpected distance to the ground or some condition which might be avoided by using another exit.

It has been suggested that a blind person could be advised orally of a sighted person's assessment without derogating the safety of others. The FAA does not agree that this offers a practical alternative to excluding blind people from exit rows. Emergencies are more likely than not to foster confusion. To add a requirement for one person to assess conditions and relay that assessment to another before an emergency exit can be opened, solely to provide that other with the right to sit in an exit row, would be to increase danger unnecessarily.

It also has been suggested that a blind person can assess the danger presented by external fire through the sense of touch. The argument is that a blind person could sense an external fire by feeling the inside of the door. While that may be true in some cases, this argument is not valid in the case of fire that is not yet near enough to the airplane or of sufficient intensity to cause the inside of the door to be warm enough to warn against opening the door. Large, modern aircraft are extremely well-insulated. At 30,000 feet, a passenger cannot feel the intense cold (as low as -70 degrees centigrade) by placing a hand on the fuselage.

In addition, this assertion does not deal with the dangers presented by smoke, jagged metal, and other hazards such as those mentioned above. The certificate holders train crewmembers to "feel" the door while looking out the window to assess conditions, but this action is designed to cause a pause for assessment of viewed conditions before reaching for the exit operating mechanism. It is not considered an independent means of assessment.

In some doors, prism windows now allow visual assessment along the full length of the aircraft all the way to the ground to determine whether fire or obstacles are present. Clearly, blind persons cannot make such an assessment.

Automatic slides fail from time to time. When this happens, the person nearest the exit must recognize that manual deployment will be necessary, find the manual deployment handle, and operate it. If this fails, it may be necessary to find and communicate the need for a totally different means of escape. Sighting flashing door lights, following floor lights, or seeing the hand signals of others may be necessary for effective escape leadership. While this leadership may fall to a passenger outside the exit row, it will do so more rapidly if those in the exit row can quickly and accurately assess the state of that exit.

Finally, it has been suggested that blind persons are better able to function in the dark and actually may be more useful than sighted persons in an emergency evacuation. It is not certain, however, that in any given crash scenario darkness will be so complete as to render sight useless. Crashes involving fire and smoke may lead ultimately to total darkness in the cabin, but data available to the FAA at this time indicate that light cues usually are available. These may come from the fire itself, airport or other lighting, red emergency lights near the doors, and floor track lights. Even in dense smoke, an open door may appear shades lighter than the balance of the surroundings and draw passengers to safety.

Assessing Whether a Slide Can Be Used Safely

This includes judging whether the slide has extended, whether it terminates in a safe area, whether the physical integrity of the slide is adequate for its use, and whether passengers are accumulating on the slide in such numbers as to threaten its integrity.

Stowing or Securing the Exit Door

The action needed to stow or secure the exit door expeditiously and safely varies widely. On power-assisted doors, no separate action beyond turning the handle may be required. Removal of an exit window, however, will require maneuvering a 40- to 80-pound, approximately 2- x 3-foot window over the adjacent seat back into the row behind the exit or onto seats in the balance of the exit row. This requires strength, sight to ensure that others are out of harm's way of the detached window, and speaking ability to issue the appropriate orders or warnings to passengers in the way.

In stowing doors that swing outward, such as those on some Boeing 727 models, care must be taken to avoid falling out of the airplane. A handle near the door is provided for just this purpose, and its purpose is obvious to a sighted person attempting to open the door. In the passenger information cards of one major certificate holder, this handle is visible in pictures of the door, but its use is not discussed. This makes it unlikely that it would be revealed to a blind person being apprised of the exit operating instructions by a sighted companion. Such communication was suggested by at least one witness appearing before the advisory committee as being all a blind person would need to function as effectively as a sighted person in regard to opening an emergency exit safely and expeditiously.

A similar argument could be made with respect to passengers who cannot read the languages in which the instructions are presented. It is the FAA's position that such instruction or explanation by another person constitutes an unnecessary delay factor and simply points to the need for placing sighted persons in exit rows.

Safely Using the Exit

This includes passing expeditiously through the exit and assessing, selecting, and following a safe path away from the exit. A person leading the way out of an exit in an emergency should have the agility to exit quickly, the strength to assist other passengers, and the ability to avoid hazards such as water, jagged metal, unexpected heights (such as might be caused by failed or damaged slides), and rescue vehicles and associated equipment.

Following Oral Directions or Hand Signals From a Crewmember

During an anticipated evacuation, survival may depend on the ability of persons in exit rows to see, hear, and understand the instructions issued by crewmembers. As discussed previously herein, exits may become inoperable or unavailable due to fire, structural damage, or damage to slides. In some situations, opening an exit may exacerbate the danger by allowing flames or smoke to rush into the cabin. The potential for such danger is increased if persons in these exit rows cannot see it or hear and understand shouted directions and warnings from crewmembers.

Other Options for Exit Row Seating

In addition to the proposal in this NPRM, the FAA considered a number of other options in regard to exit row seating.

The first of these was the approach originally proposed in Notice 74-25 in 1974. Basically, this would have prohibited handicapped passengers from sitting in all exit row seats except the seat farthest from the exit. The FAA did not select this approach for the following reasons. (1) In the event the remaining seats in the exit row were not assigned, the sole passenger in that row could be a handicapped person; (2) similarly, if the other passengers became incapacitated, the sole passenger in that row could be a handicapped person; and (3) even if the other passengers were able-bodied, a handicapped person in the exit row would be more likely than an able-bodied person to cause some delay in establishing the evacuation

flow, as demonstrated in the CAMI studies.

The second approach was suggested by a representative of one of the groups of persons with disabilities. This called for only the seat adjacent to a window exit to be reserved for only persons capable of performing the necessary functions. Again, this approach presupposed the survival or undiminished capacity of the able-bodied person during an accident or emergency landing. Further, it would have allowed handicapped persons to sit in floor-level exit rows. This approach is not viable, given the available data on evacuation flow.

The FAA's objective in this proposal is to maximize the likelihood for survival. In order to do so, it is necessary that only persons capable of performing the necessary functions be seated in exit rows, to enhance the ability of all passengers to evacuate safely. Persons in exit rows may have to work as a team. In the window exit rows, for example, the task of removing the window hatch ordinarily would fall to the person next to the window hatch. The window hatches weigh 45 to 80 pounds and must be maneuvered either over the back of the seat to the next row or placed on the seat next to the window exit seat. In either case, nearby passengers must have the capacity to recognize the need for moving out of the way rapidly and have the capacity to do so. In addition, the whole row of passengers must be capable of performing the necessary functions because the seat adjacent to the emergency exit may be unoccupied.

The initial evacuees also may have to work as a team on the ground. In a high wind, it may be necessary for several persons to hold down a slide and to catch passengers (especially disabled ones) and assist them away from the slide. The FAA invites comments, however, on the other options considered as well as any other options the agency may not have considered.

Other Issues

One issue that has been raised concerning exit row seating is whether there should be restrictions on seating persons who have been consuming alcohol in exit rows or on serving alcohol to persons seated in exit rows. Section 121.575 of the FAR prohibits a certificate holder from boarding, or serving alcohol to, a passenger who appears intoxicated. In any event, this proposed rule would apply to inebriated persons just as it applies to any other person who could not be expected to perform the functions described herein in an emergency exit row during an

evacuation. The FAA seeks comment on whether more specific requirements are needed on this subject.

Another concern that has been expressed relates to the questionable need for exit row seating restrictions, in light of the allegedly negligible probability that a crash would occur with a handicapped person sitting in an exit row. The suggestion is that this limited chance should be balanced against the inconvenience to persons who are removed from exit row seats assigned by mistake or inadvertence.

This suggestion overlooks the purpose of crashworthiness rules such as proposed herein. Crashworthiness rules are designed to deal with the post-crash environment by creating the greatest possible chance for survivors to escape the aircraft. Another example of a crashworthiness measure is the use of seatbelts. Very rarely do passengers encounter turbulence that requires fastened seatbelts during flight. It is well-established, however, that a fastened seatbelt may be the difference between saving and losing a life.

The FAA's goal in this matter is safety for the maximum number of people possible. It is clear from the studies discussed herein that any delay in beginning the flow of persons through an exit works to the detriment of all those trying to use the exit. The FAA studies show that persons without handicaps are less likely to cause such delays than are persons with handicaps. The studies also show that a handicapped person, who might cause a substantial delay at the head of an exit queue, can be accommodated once the queue is established and moving without detriment to the flow rate or to his or her own escape through an exit.

The FAA seeks any additional studies or data concerning the issues raised by this rulemaking. For example, FAA has heard references to an evacuation exercise the National Federation of the Blind conducted in conjunction with World Airways in 1985. However, FAA has been unable to obtain tapes or other reports relating to that exercise.

Requirements for Compliance With the Rule

In order to comply with the proposed regulations, certificate holders would have to develop procedures and revise their pertinent handbooks, for review and approval by the principal operations inspectors (POIs) at the FAA Flight Standards District Offices that hold their certificates. The procedures would not become effective until final approval is granted by the Director, Flight Standards Service in Washington.

To ensure that the procedures of all certificate holders are consistent with the regulations, explicit criteria for the selection of exit row occupants have been included in the proposed rule. To be approved, a certificate holder's procedures would have to include the criteria and address all of the functions enumerated in the proposed regulations as ones that may fall to a person in an exit row.

The procedures also would have to include provisions by each certificate holder to make available at each airport it serves and at each seat affected by the proposed regulations the information advising the occupying passenger that he or she may be called upon to perform the enumerated functions.

Certificate holders also would have to include provisions for verifying the appropriateness of exit row seating assignments prior to takeoff and for briefing passengers on the need to identify themselves and to move out of the exit row if they cannot meet the criteria or do not wish to be responsible for performing the required functions. For example, a procedure might consist of a flight attendant asking questions to ensure that a person seated in an exit row can hear and understand English. The flight attendant would then instruct the passenger briefly as to the responsibilities of sitting in that seat, and the person would indicate whether he or she felt capable of performing those functions. Any procedure that ensures that the criteria are applied in a non-discriminatory manner would be acceptable. The FAA invites comments on the best way to accomplish this.

Approval will be based solely upon the safety aspects of the certificate holders' procedures. The FAA's approval of procedures will not insulate the certificate holder, therefore, from challenges based upon discrimination or other matters not related to safety.

As with any changes to Part 121 or 135, certificate holders' procedures would have to provide for training, as already required by FAA regulations in 14 CFR Part 121, specifically, §§ 121.415, "Crewmember and dispatcher training requirements"; 121.417, "Crewmember emergency training"; 135.295, "Initial and recurrent flight attendant crewmember testing requirements"; and 135.319, "Crewmember training requirements". Accordingly, proposed §§ 121.585 and 135.127 contain no separate requirement for training.

In developing the foregoing proposed compliance procedures, the FAA considered eliminating the requirement for submission of the procedures to the FAA for approval. The rationale

presented for nonsubmission include: (1) The proposed rule is very explicit and could be implemented with minimal written procedures; (2) passengers with complaints based either on safety or discrimination have adequate recourse to the FAA or the Office of the Secretary of Transportation, whether or not written procedures have been submitted for approval; and (3) since the rule could be implemented with minimal written procedures, there would be little to review and approve, and the cost of submission would not be warranted.

On the other hand, the FAA considered the following factors: (1) Representatives of handicapped groups have expressed strong disapproval of the fact that the procedures developed by certificate holders under § 121.586, "Authority to refuse transportation", were submitted solely for review and not for approval by the FAA. A compliance mechanism that eliminates even the submission of the procedures may be considered a step in the wrong direction, regardless of the proposed rule's increased level of detail; (2) if the procedures are not submitted for approval, the FAA will have to rely solely on complaints to determine the compliance of the certificate holders; (3) without ready access to the procedures, the FAA will be in a less informed position, when attempting to resolve a problem informally; and (4) there is no guarantee that each certificate holder will interpret the proposed rule in exactly the same way.

The FAA welcomes comments on this matter.

The requirements would be applicable to all part 135 air taxi operators and commercial operators, as well as to Part 121 domestic, flag, and supplemental air carriers and commercial operators of large aircraft. The FAA considered limiting the applicability of § 135.127, however, to aircraft having a passenger seating configuration of more than 19 passengers.

Many small aircraft do not have complicated assist mechanisms, such as evacuation slides, and have fewer types of doors and fewer passengers to evacuate in an emergency. It is conceivable that these factors may make it less necessary to restrict exit row seating. On the other hand, damage to an aircraft that precludes the use of even one evacuation route may have a greater impact in a small aircraft than in a large one. Further, the limited space for movement actually may increase the need for seating restrictions. The FAA invites comments on the extent to which the proposed rule should apply to Part 135 commuter and on-demand air carriers and commercial operators.

Compliance Dates

As previously discussed herein, the Department of Transportation has proposed a rule to implement the Air Carrier Access Act, to which the FAA's proposed exit row rule relates. It is the intention of the Department that both proposed rules, if adopted, become effective simultaneously to the extent possible, to avoid a hiatus between the existing procedures of certificate holders, concerning exit row seating, and the requirements established through amending Parts 121 and 135.

While the Department recognizes that the existing procedures of certificate holders may have many shortcomings, they presently constitute the only available mechanism for monitoring emergency exit row seating from the standpoint of safety. The FAA believes that a hiatus would not be in the best interests of safety and that the present procedures must be used until proposed §§ 121.585 and 135.127, if adopted, become effective.

The Department also recognizes that both the certificate holders and the handicapped groups have concerns regarding the timing of the implementation. The certificate holders' concerns relate to the length of time that it would take to train their personnel before the provisions of both rules become fully effective. The handicapped groups, particularly with respect to Part 382, are concerned that there be no needless delays in the implementation of the provisions. The issue of the timing of the effective dates for both rules will be resolved on the basis of comments received on this proposal.

Regulatory Evaluation Summary

Analysis of Benefits and Costs

The FAA has estimated the costs and benefits associated with this proposed rule by analyzing it section by section.

This proposal would replace the industry's inconsistent policies and inconstant practices with a uniformly applicable rule. The proposed rule provides a comprehensive set of procedures, based on explicit criteria, that can be carried out with only minimal training cost. Changes to the appropriate parts of the crewmembers' manuals and appropriate segments of airlines' training programs are made periodically as a matter of routine. The provisions of this proposal would be incorporated routinely into those manuals and training programs at little additional cost. Factors such as an accelerated training schedule, if used, could result, however, in some additional training costs. Presently, the

FAA does not anticipate this will be necessary.

The requirement for passengers to comply with instructions, or be subject to denial of transportation at the discretion of the certificate holder, would impose no cost because such a requirement is presently industry practice reflecting section 902(j) of the Federal Aviation Act of 1958 (49 U.S.C. 1472(j)).

The requirement that certificate holders make available, at each seat affected, information advising the occupant of the functions he or she might be called upon to perform in an emergency and the requirement that passenger information cards be presented in multiple languages would cost, at maximum, approximately \$310,000 for all potentially affected seats under the proposed applicability in both Part 121 and Part 135. The maximum approximate cost per aircraft would range from \$20 to \$80 for Part 135 commuters with more than 19 seats and airplanes operating under Part 121. The maximum approximate cost per aircraft for Part 135 commuters with 19 or fewer seats and for air taxis would average \$5.

The cost of making copies of the criteria available at airports would be negligible. The incremental cost of printing the procedures and making them available at each airport would range from less than \$100 to probably no more than \$1,000 per year for each Part 121 operator and Part 135 commuter operator, depending on the number of airports each operator serves. Air taxi operators likely would incur only the negligible costs of using a copying machine to copy the criteria.

The requirement for verification of appropriately occupied affected seats prior to closing all passenger entry doors preparatory to taxi or pushback would be accomplished during the currently-required baggage stowage check with no delay of flight or incremental cost.

The required inclusions in the passenger briefings are minimal expansions and would be accomplished at no cost.

Accommodating a passenger being relocated from an exit row seat when non-exit row seats are fully booked would involve no cost. That person would not be denied transportation, nor would any cost result from moving another passenger, who is willing and able to assume the evacuation functions that may be required, into an exit row seat.

The certificate holder's submission of procedures to the FAA would involve a negligible administrative cost for the transaction.

Since no passenger would be denied transportation, there would be no loss of revenue.

The potential benefits that would be derived from this proposed rule are substantial. The FAA estimates the potential benefits based on a broad body of information which is discussed in detail elsewhere in this NPRM. Of particular import is the information contained in a study completed in October 1970 by the FAA's Office of Aviation Medicine, entitled "Survival in Emergency Escape from Passenger Aircraft" (Report No. AM-70-16), which concluded that in aircraft accidents in which decelerative forces do not result in massive cabin destruction and overwhelming trauma to passengers, survival is determined largely by the ability of the uninjured passenger to make his or her way from a seat to an exit within time limits imposed by the thermotoxic environment. Seconds can mean the difference between life and death in the aftermath of a crash inasmuch as evacuation might be terminated abruptly by an explosion at any point.

The reason for this proposed rulemaking is a concern for potential derogation of safety. Any effort to calculate monetary values for expected saved lives would be speculative, since there is no historical base from which to derive valid estimates. Nevertheless, the FAA estimates that the proposed rules would account for a benefit of substantial numbers of lives saved as contrasted with potential loss of life in the absence of such regulations.

It is obvious that the prevention of only one life lost in an accident would alone more than pay for the cost of this proposed rule. The data clearly indicate that the proposed rule would be justified on a benefit-to-cost basis. Each proposed section in Part 121 and Part 135 is identified and explained in the detailed section-by-section analysis contained in the full Regulatory Evaluation placed in the docket.

Regulatory Flexibility Determination

Since there would be only negligible cost associated with this rule for an operator, the FAA has determined that the proposal would not have a significant economic impact, positive or negative, on a substantial number of small entities.

Trade Impact Statement

Since this proposed rule would affect only Part 121 and Part 135 certificate holders regarding seating of passengers in exit rows, the FAA has determined that the proposed regulation would not have an impact on international trade.

Federalism Implications

The regulations proposed herein would not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government. Thus, in accordance with Executive Order 12612, it is determined that such a regulation does not have federalism implications warranting 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 not major under Executive Order 12291 and certifies that this rule, if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. This proposal is considered significant under Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). An initial regulatory evaluation of the proposal, including a Regulatory Flexibility Determination and Trade Impact Analysis, has been placed in the regulatory docket. A copy may be obtained by contacting the person identified under "FOR FURTHER INFORMATION CONTACT."

List of Subjects

14 CFR Part 121

Transportation, Air safety, Safety, Aviation safety, Air transportation, Air carriers, Airplanes, Aircraft, Handicapped.

14 CFR Part 135

Transportation, Air safety, Safety, Aviation safety, Air transportation, Air carriers, Airplanes, Aircraft, Handicapped.

The Proposal

Accordingly, the FAA proposes to amend Parts 121 and 135 of the Federal Aviation Regulations (14 CFR Parts 121 and 135) as follows:

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

1. The authority citation for 14 CFR Part 121 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355, 1356, 1357, 1401, 1421-1430, 1472, 1485, and 1502; 49 U.S.C. 106(g) (Revised, Pub. L. 97-449, January 12, 1983).

2. New § 121.585 is added to read as follows:

§ 121.585 Exit row seating.

(a) Each certificate holder shall determine, to the extent necessary to perform the applicable functions of paragraph (d) of this section, the suitability of each person it permits to occupy a seat in a row of seats that provides the most direct access to an exit (including all of the seats in the row from the fuselage to the first aisle inboard of the exit or, in cases where there is no aisle, in any seat that has direct access to an exit), in accordance with this section. These determinations shall be made in a non-discriminatory manner consistent with the requirements of this section, by persons designated in the certificate holder's required operations manual.

(b) No certificate holder may seat a person in a seat covered by this section if the certificate holder determines that the person would likely be unable to perform one or more of the applicable functions in paragraph (d) of this section because—

(1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs, to reach upward, sideways, and downward to the location of door and exit-slide operating mechanisms; to grasp and push, pull, turn, or otherwise manipulate those mechanisms; to push, shove, pull, or otherwise open doors; to lift out, hold, deposit on nearby seats, or maneuver over the seatbacks to the next row objects the size and weight of over-wing window exit doors; to remove obstructions of similar size and weight; to reach the exit expeditiously; to maintain balance while removing obstructions; to exit expeditiously; to stabilize an escape slide after deployment; and to assist others in getting off an escape slide;

(2) The person lacks sufficient cognitive capacity to perform one or more of those functions without the assistance of an adult companion, parent, or other relative;

(3) The person lacks the ability to read and understand instructions related to emergency evacuation provided by the certificate holder in printed, handwritten, or graphic form;

(4) The person lacks sufficient visual capacity to perform one or more of the applicable functions in paragraph (d) of this section without the assistance of

visual aids beyond contact lenses or eyeglasses;

(5) The person lacks sufficient aural capacity to hear and understand instructions shouted by flight attendants, without assistance beyond a hearing aid, and the ability to understand the language spoken by the flight attendants;

(6) The person lacks the ability adequately to impart information orally to other passengers; or

(7) The person has:

(i) A condition or responsibilities, such as caring for small children, that might be likely to prevent the person from performing one or more of the applicable functions listed in paragraph (d) of this section; or

(ii) A condition that might be likely to cause the person harm if he or she performs one or more of the applicable functions or result in harm that would prevent the person from performing one or more of the applicable functions listed in paragraph (d) of this section.

(c) Each passenger shall comply with instructions given by a crewmember or other authorized employee of the certificate holder, implementing exit row seating restrictions established in accordance with this section.

(d) Each certificate holder shall include on passenger information cards, presented in the languages used by the certificate holder for passenger information cards, at each seat affected by this section, the following information: In the event of an emergency in which a crewmember is not available to assist, passengers occupying an exit row seat (or any seat that has direct access to an exit) may be called upon to perform the following functions:

- (1) Locate the exit;
- (2) Recognize the exit opening mechanism;
- (3) Comprehend the instructions for operating the exit;
- (4) Operate the exit;
- (5) Assess whether opening the exit will increase the hazards to which passengers may be exposed;
- (6) Followed oral directions and hand signals given by a crewmember;
- (7) Stow or secure the exit door so that it will not impede use of the exit;
- (8) Assess the condition of an escape slide, activate the slide, and stabilize the slide after deployment to assist others in getting off the slide;
- (9) Pass expeditiously through the exit; and
- (10) Assess, select, and follow a safe path away from the exit.

(e) Each certificate holder shall include, on passenger information cards at all seats affected by this section, the

criteria set forth in paragraph (b) of this section, presented in the languages used by the certificate holder for passenger information cards.

(f) Each certificate holder shall make available for inspection by the public at all passenger loading gates and ticket counters at each airport where it conducts passenger operations, written procedures established for making determinations in regard to exit row seating.

(g) No certificate holder shall allow all passenger entry doors to be closed in preparation for taxi or pushback unless at least one required crewmember has verified that each occupied seat affected by this section is occupied by a person the crewmember determines is likely to be able to perform the applicable functions in paragraph (d) of this section.

(h) Each certificate holder shall include in its passenger briefings a reference to the passenger information cards, required by paragraphs (d) and (e), the criteria set forth in paragraph (b), and the functions set forth in paragraph (d) of this section.

(i) Each certificate holder shall include in the briefings and in the written criteria a request that a passenger identify himself or herself to allow reseating if he or she—

- (1) Cannot meet the criteria set forth in paragraph (b) of this section;
- (2) Has a nondiscernible condition that will prevent him or her from performing the applicable functions listed in paragraph (d) of this section;
- (3) May suffer bodily harm as the result of performing one or more of those functions; or,
- (4) Does not wish to perform those functions. A certificate holder shall not require the passenger to disclose his or her reason for needing reseating.

(j) Each certificate holder shall expeditiously honor a passenger's request to be relocated to a seat not affected by this section.

(k) In the event a certificate holder determines in accordance with this section that a passenger assigned to an exit row seat is not likely to be able to perform the functions described in paragraph (d) of this section, or a passenger requests a non-exit row seat, the certificate holder shall relocate the passenger to a non-exit row seat.

(l) In the event of full booking in the non-exit row seats, the certificate holder shall move a passenger, if necessary to accommodate a passenger being relocated from an exit row seat, who is willing and able to assume the evacuation functions that may be required, to an emergency exit row seat. Persons being moved out of an

emergency exit row seat shall not be denied transportation.

(m) A certificate holder may deny transportation or exit row seating to any passenger who refuses to comply with instructions given by a crewmember or other authorized employee of the certificate holder, implementing exit row seating restrictions established in accordance with this section.

(n) In order to comply with this section,

(1) Certificate holders shall develop procedures that:

(i) Include the criteria enumerated in paragraph (b) of this section;

(ii) Address all of the functions enumerated in paragraph (d) of this section;

(iii) Provide for airport information, passenger information cards, crewmember verification of appropriate seating in exit rows, passenger briefings, seat assignments, and denial of transportation as set forth in paragraphs (e) through (i) and (o) of this section;

(2) Certificate holders shall submit their procedures for preliminary review and approval to the principal operations inspectors assigned to them at the FAA Flight Standards District Offices that hold their certificates.

(o) Certificate holders shall:

(1) Deny transportation only on the basis of refusal to comply with instructions as set forth in paragraph (c) of this section; and

(2) Assign seats prior to boarding consistent with the criteria in paragraph (b) and the functions in paragraph (d) of this section, to the maximum extent feasible.

(p) The procedures required by paragraph (m) of this section will not become effective until final approval is granted by the Director, Flight Standards Service, Washington, DC. Approval will be based solely upon the safety aspects of the certificate holders' procedures.

PART 135—AIR TAXI OPERATORS AND COMMERCIAL OPERATORS

3. The authority citation for Part 135 continues to read as follows:

Authority: 49 U.S.C. 1354(a), 1355(a), 1421 through 1431, and 1502; 49 U.S.C. 106(g) (Revised Pub. L. 97-448, January 12, 1983)

4. New § 135.127 is added to read as follows:

§ 135.127 Exit row seating.

(a) Each certificate holder shall determine, to the extent necessary to perform the applicable functions of paragraph (d) of this section, the suitability of each person it permits to

occupy a seat in a row of seats that provides the most direct access to an exit (including all of the seats in the row from the fuselage to the first aisle inboard of the exit or, in cases where there is no aisle, in any seat that has direct access to an exit), in accordance with this section. These determinations shall be made in a non-discriminatory manner consistent with the requirements of this section, by persons designated in the certificate holder's required operational manual.

(b) No certificate holder may seat a person in a seat covered by this section if the certificate holder determines that the person would likely be unable to perform one or more of the applicable functions in paragraph (d) of this section because—

(1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs, to reach upward, sideways, and downward to the location of door and exit-slide operating mechanisms; to grasp and push, pull, turn, or otherwise manipulate those mechanisms; to push, shove, pull, or otherwise open doors; to lift out, hold, deposit on nearby seats, or maneuver over the seatbacks to the next row objects the size and weight of over-wing window exit doors; to remove obstructions of similar size and weight; to reach the exit expeditiously; to maintain balance while removing obstructions; to exit expeditiously; to stabilize an escape slide after deployment; and to assist others in getting off an escape slide;

(2) The person lacks sufficient cognitive capacity to perform one or more of those functions without the assistance of an adult companion, parent, or other relative;

(3) The person lacks the ability to read and understand instructions related to emergency evacuation provided by the certificate holder in printed, handwritten, or graphic form;

(4) The person lacks sufficient visual capacity to perform one or more of the applicable functions in paragraph (d) of this section without the assistance of visual aids beyond contact lenses or eyeglasses;

(5) The person lacks sufficient aural capacity to hear and understand instructions shouted by flight attendants, without assistance beyond a hearing aid, and the ability to understand the language spoken by the flight attendants;

(6) The person lacks the ability adequately to impart information orally to other passengers; or,

(7) The person has:

(i) A condition or responsibilities, such as caring for small children, that

might be likely to prevent the person from performing one or more of the applicable functions listed in paragraph (d) of this section; or

(ii) A condition that might be likely to cause the person harm if he or she performs one or more of the applicable functions or result in harm that would prevent the person from performing one or more of the applicable functions listed in paragraph (d) of this section.

(c) Each passenger shall comply with instructions given by a crewmember or other authorized employee of the certificate holder, implementing exit row seating restrictions established in accordance with this section.

(d) Each certificate holder shall include on passenger information cards, presented in the languages used by the certificate holder for passenger information cards, at each seat affected by this section, the following information: In the event of an emergency in which a crewmember is not available to assist, passengers occupying an exit row seat (or any seat that has direct access to an exit) may be called upon to perform the following functions:

- (1) Locate the exit;
- (2) Recognize the exit opening mechanism;
- (3) Comprehend the instructions for operating the exit;
- (4) Operate the exit;
- (5) Assess whether opening the exit will increase the hazards to which passengers may be exposed;
- (6) Follow oral directions and hand signals given by a crewmember;
- (7) Stow or secure the exit door so that it will not impede use of the exit;
- (8) Assess the condition of an escape slide, activate the slide, and stabilize the slide after deployment to assist others in getting off the slide;
- (9) Pass expeditiously through the exit; and
- (10) Assess, select, and follow a safe path away from the exit.

(e) Each certificate holder shall include, on passenger information cards at all seats affected by this section, the criteria set forth in paragraph (b) of this section, presented in the languages used by the certificate holder for passenger information cards.

(f) Each certificate holder shall make available for inspection by the public at all passenger loading gates and ticket counters at each airport where it conducts passenger operations, written procedures established for making determinations in regard to exit row seating.

(g) No certificate holder shall allow all passenger entry doors to be closed in preparation for taxi or pushback unless

at least one required crewmember has verified that each occupied seat affected by this section is occupied by a person the crewmember determines is likely to be able to perform the applicable functions in paragraph (d) of this section.

(h) Each certificate holder shall include in its passenger briefings a reference to the passenger information cards required by paragraphs (d) and (e), the criteria set forth in paragraph (b), and the functions set forth in paragraph (d) of this section.

(i) Each certificate holder shall include in the briefings and in the written criteria a request that a passenger identify himself or herself to allow reseating if he or she—

(1) Cannot meet the criteria set forth in paragraph (b) of this section;

(2) Has a nondiscernible condition that will prevent him or her from performing the applicable functions listed in paragraph (d) of this section;

(3) May suffer bodily harm as the result of performing one or more of those functions; or

(4) Does not wish to perform those functions. A certificate holder shall not require the passenger to disclose his or her reason for needing reseating.

(j) Each certificate holder shall expeditiously honor a passenger's request to be relocated to a seat not affected by this section.

(k) In the event a certificate holder determines in accordance with this section that a passenger assigned to an exit row seat is not likely to be able to perform the functions described in paragraph (d) of this section, or a passenger requests a non-exit row seat, the certificate holder shall relocate the passenger to a non-exit row seat.

(l) In the event of full booking in the non-exit row seats, the certificate holder shall move a passenger, if necessary to accommodate a passenger being relocated from an exit row seat, who is willing and able to assume the evacuation functions that may be required, to an emergency exit row seat. Persons being moved out of an emergency exit row seat shall not be denied transportation.

(m) A certificate holder may deny transportation or exit row seating to any passenger who refuses to comply with instructions given by a crewmember or other authorized employee of the certificate holder, implementing exit row seating restrictions established in accordance with this section.

(n) In order to comply with this section,

(1) Certificate holders shall develop procedures that:

(i) Include the criteria enumerated in paragraph (b) of this section;

(ii) Address all of the functions enumerated in paragraph (d) of this section;

(iii) Provide for airport information, passenger information cards, crewmember verification of appropriate seating in exit rows, passenger briefings, seat assignments, and denial of transportation as set forth in paragraphs (e) through (i) and (o) of this section;

(2) Certificate holders shall submit their procedures for preliminary review

and approval to the principal operations inspectors assigned to them at the FAA Flight Standards District Offices that hold their certificates.

(o) Certificate holders shall:

(1) Deny transportation only on the basis of refusal to comply with instructions as set forth in paragraph (c) of this section; and

(2) Assign seats prior to boarding consistent with the criteria in paragraph (b) and the functions in paragraph (d) of this section, to the maximum extent feasible.

(p) The procedures required by paragraph (m) of this section will not become effective until final approval is granted by the Director, Flight Standards Service, Washington, DC. Approval will be based solely upon the safety aspects of the certificate holders' procedures.

Issued in Washington, DC, on March 7, 1989.

D.C. Beaudette,

Acting Director, Flight Standards Service.

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