

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 13

(Docket No. 25690; Notice No. 90-8)

Rules of Practice for FAA Civil Penalty Actions

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking.

SUMMARY: This notice invites public comment on policy issues and proposed changes to the rules of practice regarding the FAA's civil penalty authority in actions not exceeding \$50,000 for a violation of the Federal Aviation Act of 1958, or any rule, regulation, or order issued thereunder. At the conclusion of a hearing before the House Subcommittee on Aviation of the Committee on Public Works and Transportation in November 1989, the FAA agreed to reexamine several objections to the rules of practice raised by individuals and by organizations representing air carriers, airport operators, and pilots. In addition to soliciting written comments, the FAA also will hold a public meeting to allow interested persons to comment orally on the issues and proposed changes raised herein. These comments will assist the FAA in its consideration of changes to the rules of practice to be applied in future and, where appropriate, pending civil penalty actions.

DATES: Written comments on the notice of proposed rulemaking must be received on or before March 30, 1990. The FAA has published concurrently with this notice, but in a separate section of the *Federal Register*, a notice providing information on the date and location of the public meeting.

ADDRESSES: Written comments, in triplicate, on this notice may be mailed or delivered to the Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket (AGC-10), Room 915G, Docket No. 25690, 800 Independence Avenue SW., Washington, DC 20591. Comments submitted on the notice must be marked "Docket No. 25690." Comments may be inspected in the Rules Docket (Room 915G) between 8:30 a.m. and 5:00 p.m. on weekdays, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Denise Daniels Ross, Special Assistant to the Chief Counsel (AGC-3), Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-3773.

SUPPLEMENTARY INFORMATION:

Comments Invited

This notice of proposed rulemaking (NPRM) is issued to solicit broad public participation in rulemaking proceedings on specific areas of the rules of practice in civil penalty proceedings. Interested persons are invited to participate in this rulemaking proceeding by submitting such written data, views, or arguments as they may desire. Comments must identify the regulatory docket number or notice number of this document and must be submitted in triplicate to the address listed above. All comments received on or before the closing date for comments will be considered before taking further rulemaking action. Persons wishing the FAA to acknowledge receipt of their comments must submit with their comments a preaddressed postcard on which the following statement is made: "Comments to Docket No. 25690." The postcard will be date and time stamped and returned to the commenter. All comments submitted in response to this notice 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 involved in this rulemaking will be filed in the docket.

Availability of the NPRM

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

Background

On August 31, 1988, by final rule, the FAA promulgated rules of practice (53 FR 34646; Sept. 7, 1988) for civil penalty actions conducted under a statutory amendment (Pub. L. 100-223; Dec. 30, 1987) to the Federal Aviation Act of 1958 (FA Act). That amendment empowers the Administrator to assess civil penalties, not to exceed \$50,000, for violations of the FA Act and the FAA's safety regulations promulgated thereunder. Under this program, a civil penalty may be assessed only after

notice and an opportunity for a hearing on the record. In the final rule, the FAA invited interested persons to comment on the rules of practice.

On March 17, 1989, the FAA issued a detailed disposition of the 20 comments submitted on the rules of practice, responding to the commenters' objections to specific provisions of the rules of practice. 54 FR 11914; March 22, 1989. In the disposition of comments, the agency explained the purpose of the rules of practice and discussed its expectations of the manner in which cases would proceed under those rules.

The Air Transport Association of America (ATA) filed a petition for review in the United States Court of Appeals for the District of Columbia (No. 89-1195), challenging the agency's promulgation of the final rule and the rules of practice for civil penalty actions. Several persons in their individual capacity, the Aircraft Owners and Pilots Association (AOPA), the National Air Carrier Association (NACA), the Air Line Pilots Association (ALPA), and America West intervened in support of ATA's petition for review. Briefs have been filed in that action and oral argument was held on February 2, 1990. The agency's position on the legal issues is articulated in the brief filed with the court. This NPRM is not intended to address the legal issues or arguments involved in that case.

The House Subcommittee on Aviation of the Public Works and Transportation Committee held a hearing on November 15, 1989, to consider an extension of the FAA's authority to assess civil penalties administratively. The FAA and representatives of the aviation industry, among others, testified about the FAA's authority and the rules of practice implementing that authority. On November 22, 1989, shortly before Congress concluded its legislative session, a 4-month extension of the FAA's authority was passed (Pub. L. 101-236). The President signed that bill into law on December 15, 1989. Under that law, the FAA's authority to assess civil penalties will expire on April 30, 1990, unless further extended by Congress.

Purpose of the NPRM

This document is intended to fulfill a commitment made by the agency to the members of the House Subcommittee on Aviation of the Committee on Public Works and Transportation at the hearing held on November 15, 1989. As the FAA repeated at the hearing, the rules of practice provide significant and substantial procedural safeguards and meet all requirements governing the

procedural rights of persons and entities charged with violations. Administrative adjudication of civil penalties is an effective and expeditious means of prosecuting aviation safety and security violations, and, in particular, is a far more efficacious procedure than one in which penalties may be adjudicated only in a United States district court. The authority granted by Congress contributes to the maintenance and improvement of aviation security and safety by providing swifter, more certain enforcement and increased accountability for violations of critical safety and security regulations.

At the hearing, the rules of practice received a significant amount of criticism from the witnesses representing the aviation community. The agency acknowledges that the nature and extent of this criticism resulted in only a 4-month extension of the FAA's authority. At the conclusion of the Congressional hearing, the FAA agreed to review the objections raised by those members of the aviation community who testified at the hearing and who previously commented on the rules. This effort is not intended to provide another forum for litigating matters that are before the United States Court of Appeals. Instead, this document is intended to invite comment on changes to the rules of practice proposed herein and on the public interest and policy served by amending the rules of practice in the manner suggested by participants at the Congressional hearing. Interested persons may offer changes, different from those proposed herein by the agency, to the rules addressed in this notice; commenters are asked to justify the policy and practical benefits expected from their suggested changes.

In March 1990, the FAA anticipates that an agency-requested study of the civil penalty assessment authority and the rules of practice implementing that authority, commissioned by the Administrative Conference of the United States (ACUS), will be completed and a final report of the study will be available for review. On January 22, 1990, the FAA received a copy of a draft report prepared for ACUS. The report provides an independent evaluation of the agency's rules of practice for hearings conducted under its civil penalty assessment authority. The agency has examined the draft report in sufficient detail to propose changes to the rules of practice that address the recommended revisions to the rules of practice contained in that report. The FAA will include a copy of the draft

report in the public docket for this rulemaking.

Because the authority given to the Administrator has been extended only temporarily, the FAA must proceed expeditiously with any rulemaking action that may follow this notice. Consequently, the comment period for this NPRM is relatively short. It is important that the aviation community understand that the speed with which the agency is proceeding is not intended to circumvent meaningful comment. Instead, the FAA requests the aviation community's cooperation in providing reasoned and constructive comment on the issues discussed in this notice within a relatively brief time period.

DISCUSSION: Complaints about the FAA's rules of practice in civil penalty actions under \$50,000 have been advanced by a number of aviation groups, aviation attorneys, and other organizations and persons. The FAA has responded to the objections raised by the aviation community on numerous occasions, including in its disposition of comments, and in other documents directed to different audiences. The agency briefly referenced the objections in its Report to Congress on the efficacy of the Civil Penalty Assessment Demonstration Program, submitted in July 1989. The Department of Justice, on the FAA's behalf, set forth the Government's legal position on a number of these issues in its detailed brief in the litigation pending before the United States Court of Appeals. The agency also explained its rules of practice in a comprehensive response to Chairman Oberstar in preparation for the subcommittee's hearing. The FAA has included a copy of the disposition of comments, the agency's Report to Congress, the Justice Department's brief, and the agency's response to Chairman Oberstar in the public docket for review by interested persons.

At this point, the particular objections of the aviation community appear to have coalesced into discrete categories. Specifically, these complaints focus on several areas of the rules of practice perceived to be biased in favor of the prosecution, to afford less process than desired in on-the-record hearings, or simply contrary to the interests of alleged violators. Those areas in which specific questions have been raised either by the Subcommittee members, by those who have commented previously, and by those who testified at the hearing, are discussed below. Comments on the rules of practice submitted after promulgation of the final rule are contained in the public docket. The FAA also has included in the public docket a

copy of a letter from the president of the Air Transport Association of America, and interlineated changes to the rules of practice supported by ATA, for comment by interested persons.

Following discussion of each of the objections that have been most commonly raised, the FAA in this notice proposes a specific revision to the rules of practice. These proposed changes are based upon the information and material submitted thus far by those persons who have commented on the rules and who testified at the Congressional hearing. While the scope of this notice is limited to specific sections of the rules of practice, commenters may propose alternatives different from those suggested by the agency and submit supporting information for their alternatives.

1. *Orders of Civil Penalty.* Section 13.202 states, in pertinent part, that an "order of civil penalty" is "an order issued after a person requests a hearing * * * and which is filed with the docket clerk as the complaint in the proceedings." Section 13.208(a) states that " * * * an order of civil penalty shall serve as the complaint * * * "

Objections have been raised that issuing an "order of civil penalty" prior to a hearing creates an apparent presumption of guilt before any hearing has been held and may discourage alleged violators from contesting the allegations set forth in the complaint. In accordance with § 13.202 and § 13.208(a) of the rules, an order of civil penalty is issued solely to serve as the complaint containing the allegations to be proven by the agency at a hearing. This step follows the issuance initially of a notice proposing the penalty and opportunities for an informal conference and written responses to the charges. This process is identical to current practice before the National Transportation Safety Board (NTSB) but many have suggested, in effect, that the Board's procedures not be followed in this instance. While the agency does not believe that any alleged violator would suffer any adverse consequences as a result of this provision, the agency proposes in this document a change in nomenclature to allay any putative fears.

Based on the information submitted thus far, the FAA proposes to change the designation "order of civil penalty" to "complaint" throughout the rules of practice and redefine "complaint" in § 13.202, the "definitions" section of the rules of practice. Section 13.16(h) ("order of civil penalty") also would be revised to reflect that the agency will issue a "complaint" if a hearing is requested pursuant to the rules. The FAA has

included all sections of the rules that would be affected by the redesignation. Because an administrative law judge would no longer issue a decision affirming, modifying or reversing an "order," the FAA proposes to insert language providing that an administrative law judge would issue a decision "that affirms, modifies, or reverses the allegations contained, or the civil penalty sought, in a complaint." Sections 13.18(l) and 13.232(a). The FAA seeks comment on this or any other alternative that commenters believe would improve the rules of practice in this specific regard, with a discussion of benefits or other consequences expected to arise from any such change.

2. *Separation of functions.* Section 13.203(b) states, in pertinent part:

Any agency attorney engaged in the performance of prosecutorial functions in a case shall not, in that case or a factually related case, participate in, or advise the FAA decisionmaker regarding, an initial decision or any appeal to the FAA decisionmaker* * * *

It has been noted by some that the rules of practice do not also expressly provide for the separation of investigatory and adjudicatory functions performed by agency personnel and do not expressly insulate administrative law judges from those who investigate or prosecute civil penalty actions. The present rules expressly address only the separation of prosecutorial and adjudicative functions because some personnel employed in the same office (the Office of the Chief Counsel) participate in one or the other of those functions.

In its detailed response to the Subcommittee on Aviation, the FAA advised that the agency is structured in a manner such that persons who normally investigate violations are employed within agency offices that are separate from the offices that house those who assist in the decisionmaking function. The omission of specific reference to separation of investigative and adjudicative functions was not intended to allow off-the-record communication between persons involved in those functions and the agency is aware of no instance in which separation of those functions has not been observed.

However, so that what is already true in practice is reflected in the rules, the FAA proposes to amend § 13.203 of the rules of practice. The agency proposes to include an express prohibition directed to agency employees, including inspectors or other investigators, and attorneys in the extremely rare case that they may be involved in an investigation. Thus, those persons who

participate in an investigation would be prohibited from advising (as opposed to testifying in a particular case) any person who performs an adjudicatory function in a case, or a factually-similar case. Also, the FAA proposes to expand § 13.203(b), (c), and (d) to reflect the division of labor and supervisory functions that were explained in the FAA's Federal Register announcement regarding separation of functions. 54 FR 1335; Jan. 13, 1989. Thus, the rules of practice would show clearly the separation of those agency employees who advise the Administrator and those who investigate or prosecute civil penalty actions.

In addition, the FAA proposes to amend the rules of practice specifically to restrict communications between agency employees and administrative law judges who issue initial decisions. While this restriction now exists in the Administrative Procedure Act and has been strictly observed by agency employees and administrative law judges, the practice can be codified. Commenters are invited to address the necessity and desirability of adding such a provision.

3. *Effect of Admissions.* Some have objected to a sentence in the rules of practice (§ 13.220(l)(3)), which provides that the FAA may use, in a subsequent enforcement proceeding, formal admissions made by an alleged violator in a previous civil penalty action. The relevant sentence states:

Any matter admitted or deemed admitted [pursuant to a written request for admission] under this section that results in a finding of violation may be used by the Administrator in a subsequent enforcement proceeding.

Objectors to this provision urge that this gives an "advantage" to the government, without a corresponding benefit to an alleged violator.

As the FAA has previously stated, the parties in these proceedings are not symmetrical and those who defend civil penalty actions are not similarly situated with the agency in these actions. So that the agency can determine whether this section should be expanded to become "symmetrical," commenters are invited to describe the circumstances under which persons charged with a violation would have a comparable need to use admissions by agency personnel made in a previous case.

In the absence of such comment, the agency is inclined simply to delete the sentence in § 13.220(l)(3) quoted above, as many commenters have already requested, and so proposes in this document. Such deletion would not appear to have a significant effect on the

agency's prosecution of civil penalty actions. It also would not affect agency consideration of prior violations in future cases, so long as the agency otherwise could consider such prior violations. (See the discussion of the "compromise" issue.) The FAA requests comment on any consequences of expanding or deleting the provision.

4. *Opinion Testimony, Hearsay Testimony, and FAA Employee Testimony.* Section 13.227 states, in pertinent part:

An employee of the agency may testify in a proceeding governed by this subpart only as to facts, within the employee's personal knowledge, giving rise to the incident or violation.

Objections to this section focus on a perceived limitation on the expert testimony of FAA employees and an apparent disparity between the government and private parties in that the rules do not similarly address the testimony of employees of private parties. While the agency has previously explained the sound basis for this section, the FAA proposes to amend this section to assuage the fears of some that the fairness of a hearing may be affected by the operation of this provision.

As to the first objection, the phrases "within the employee's personal knowledge" and "giving rise to the incident or violation" were never intended to, and do not in context, limit introduction of relevant and probative evidence. Nevertheless, the FAA acknowledges that the phrase "within the employee's personal knowledge" facially suggests the inadmissibility of hearsay testimony otherwise allowed under the rules of practice. Therefore, the FAA proposes to eliminate those phrases from the rule by deleting the second sentence of § 13.227 quoted above. Thus, FAA employees could testify as to any fact relevant to a disputed issue, and hearsay testimony by agency employees would be admissible on the same basis as hearsay testimony by any other witness. The FAA believes that the rule as revised would address the commenters' concerns about the appearance or possibility of restricting factual testimony by the agency's experts. Commenters should address the proposal posed above or suggest other alternatives. Commenters should address the policy behind whatever suggestion they propose in their comments.

Some commenters also objected to the first sentence of § 13.227, which allows agency employees to testify as experts or opinion witnesses only for the FAA.

One option to address the "disparity" objection would be to provide that the FAA may not use expert or opinion testimony from employees of an alleged violator, in accordance with its current practice. The rule then would ensure that opinion testimony of employees of private parties would only be used by those parties. However, after review of this section and the draft report to ACUS, the FAA does not believe that such a provision is necessary.

Instead, the FAA has decided to retain the narrow restriction in the rule as written. The section appropriately restricts only agency employees with respect to their expert or opinion testimony while employed by the FAA, without restricting their factual testimony and without so limiting expert or opinion testimony proffered by private parties. The FAA believes the current provision is necessary because it would be nearly impossible to distinguish "official" and "unofficial" testimony of government employees in different cases. Moreover, the FAA believes that the public interest would not be served by the confusion that might arise over an FAA employee's expert or opinion testimony.

Some commenters may object to keeping this restriction. Nevertheless, it must be observed that the limitation on expert and opinion testimony by agency employees only reflects, and was included in the rules to inform those not familiar with, longstanding rules promulgated by the Office of the Secretary of Transportation governing the testimony of all DOT employees in legal proceedings. 49 CFR 9.5(a). Therefore, while the FAA could delete this sentence from its own rules of practice in civil penalty actions, as some in effect have asked, commenters must be mindful that a similar provision would continue to exist in the rules of the Office of the Secretary, governing all employees in the Department of Transportation. Deleting this section from the rules of practice would not affect equally binding departmental rules and, thus, would not change the limitation on testimony by agency employees with respect to expert or opinion testimony.

5. Written Arguments. Section 13.231(a) addresses argument during a hearing and states, in pertinent part:

During the hearing, the administrative law judge shall give the parties a reasonable opportunity to present oral arguments on the record * * * Only in a clearly complex or unusual case, the administrative law judge may request or the parties may agree to file written arguments * * *

Section 13.231(b) addresses final oral argument and states, in pertinent part:

At the conclusion of the hearing and before the administrative law judge issues an initial decision in the proceedings, the parties are entitled to submit oral proposed findings of fact and conclusions of law * * * and supporting arguments * * *

Section 13.231(c) addresses posthearing briefs and states:

Only in a clearly complex or unusual case, the administrative law judge may request or the parties may agree to file written posthearing briefs, instead of final oral argument, before the administrative law judge issues an initial decision in the proceedings.

Some have stated that the rules of practice prohibit written motions before and during a hearing and written arguments at the conclusion of a hearing except in clearly complex and unusual cases. The commenters claim that this "ban" precludes alleged violators from effectively presenting their case to the administrative law judge. The FAA notes that the sections quoted above apply only to motions during a hearing and posthearing briefs. Written motions and supporting arguments made before a hearing are covered by § 13.218, which does not distinguish between straightforward or relatively simple cases and "clearly complex or unusual" cases.

The agency included this provision in the rules to save the parties time, effort, and costs in relatively simple disputes that do not require extensive research, elaborate or detailed presentation, or legal debate. In addition, it was believed that those persons who choose to represent themselves or to appear without counsel might benefit from such a provision. The agency is concerned that the critics of this section have not focused on its benefits to such persons.

The FAA requests comment on whether submission of written briefs in support of motions made at the hearing or closing arguments might best be left entirely to the discretion of the parties, to the discretion of the administrative law judge, or to some agreement among the parties and the administrative law judge. Commenters who support submission of written briefs in all cases should address the costs and benefits that may be expected. If a commenter believes that written submissions should be allowed in some but not all cases, the commenter should describe the types of cases in which written submissions are desired and the basis for the commenter's choices. Commenters should discuss whether, if the matter were left entirely to the discretion of the administrative law judge, such

discretion should be unfettered or limited by considerations of the convenience of the parties, complexity of the case, representation of a party by counsel, or the amount of a proposed civil penalty.

The FAA specifically requests comment on the extent to which an administrative law judge should be authorized to require written briefs where a party expressly waives that opportunity and, instead, wishes to present argument orally. In considering the interests of those persons who are not represented by counsel, commenters should advise whether a provision in the rules, ensuring that no adverse inference is drawn from a party's failure to file a brief, would be necessary or appropriate.

While inviting comment on the issues raised above, the FAA proposes to delete the phrase "only in a clearly complex or unusual case" in § 13.231 of the rules of practice. In its place, the FAA proposes to insert language in those sections of the rule quoted above, stating that written submissions during the hearing and posthearing briefs would be allowed only in those cases where the administrative law judge finds that written argument is necessary or required for resolution of the issues or the case. The FAA proposes to delete the phrase "only in a clearly complex or unusual case" in § 13.232(c) and to include similar language to that noted above in that section regarding written decisions by administrative law judges.

The FAA believes that the proposal would address the concerns of commenters who prefer written submissions while preserving the presumption in favor of oral argument and decisions in straightforward or routine cases. Thus, under the proposed rule, the administrative law judge may determine, within the context of a specific civil penalty action, whether written submissions in support of motions during a hearing or posthearing briefs are necessary to help resolve factual disputes or issues of law.

6. Modification of Civil Penalty by an Administrative Law Judge. A sentence in § 13.232(a) states:

If the administrative law judge reduces the civil penalty contained in the order of civil penalty, the administrative law judge shall provide a basis supporting the reduction in civil penalty.

This sentence has been criticized as improperly shifting the burden of justifying a civil penalty from the agency attorney to the administrative law judge. Because administrative law judges do not increase a civil penalty proposed in

an order of civil penalty, there is no bias in the rule simply because it refers only to "reduction" of a civil penalty. Moreover, the rules of practice expressly place upon the agency prosecutor at all times the burden of proving the agency's case, which includes establishing the amount of a proposed civil penalty, by a preponderance of the evidence in the record. See § 13.223 and § 13.224 (a) and (b).

This requirement is not unique to the FAA; among other agencies with similar provisions, the FAA patterned this section after decisions of the NTSB. Indeed, the NTSB requires even more of a showing (a "clear and compelling basis"), and the agency is not aware of any previous criticism of NTSB practice that it improperly shifts the burden of proof. This section was intended to implement the requirement in section 557(c) of the Administrative Procedure Act that a decisionmaker rendering initial decisions provide an adequate explanation for a particular ruling or order, and to enable the parties, the Administrator, or a court on appeal to understand the basis for the civil penalty amount in the initial decision. Commenters should address whether it is appropriate for an administrative law judge, who finds that all the facts and violations alleged in the agency's complaint have been established, to nonetheless reduce the proposed sanction without stating any reason for such reduction.

One option would be to require an administrative law judge to issue an opinion that sets forth, in every case and in sufficient detail, an explanation for each finding, order, or decision made by the administrative law judge. The bases for each initial decision in its entirety would then be available for the parties, the Administrator on appeal, and any reviewing court of appeals. The FAA is not convinced that a detailed articulation of every decision or ruling made by an administrative law judge is required or necessary. However, commenters should feel free to address whether such a provision is desirable and whether it would have any adverse effects.

To address concerns that § 13.232(a) reverses the burden of proof and creates the appearance of bias in favor of the agency, the FAA proposes to delete the fourth sentence in § 13.232(a) that requires an administrative law judge to provide a supporting basis for a reduction of a civil penalty. In addition, based on the recommendation made in the draft report to ACUS, the FAA proposes to modify the second sentence

of § 13.232(a), which now requires an administrative law judge to include in an initial decision the " * * * findings of fact and conclusions of law, and the grounds supporting those findings and conclusions, upon * * * the reasonableness of any sanction contained in the order of civil penalty * * * ". The proposed modification would substitute for the underlined phrase the language "the amount of any civil penalty found appropriate by the administrative law judge." The proposed change would require an administrative law judge to explain the basis for adopting, modifying, or reversing the allegations contained, or the amount of a civil penalty sought, in a complaint. The agency seeks comment on any adverse effect or benefit of the proposal. It is important to emphasize here that the FAA is not seeking anything more than is contemplated under the Administrative Procedure Act. The proposal does not alter an administrative law judge's role in adjudicating the agency's complaint and is not intended to imply that only a detailed and elaborate articulation will satisfy this requirement.

7. Compromise of Penalties. While not directly related to the procedures adopted in the rules of practice, considerable comment has been made on the agency's current policy against civil penalty settlements that result in no formal finding of a violation by the alleged violator. Changes to the agency's policy in this regard need not necessarily result in a change to the rules of practice. Nevertheless, the FAA believes that public comment on this issue will aid the agency's review of existing settlement policy and assist in the formulation of possible changes to that policy.

Because this issue was misunderstood by some at the Congressional hearing, it bears emphasizing that the use of the word "compromise" here is distinct from the use of the word to denote a compromise of the amount of the civil penalty. The term "compromise" also is often referred to as a "settlement." A compromise or settlement of the amount of civil penalty has always been and still is available for all civil penalty cases, regardless of amount. (See § 13.16(p) for cases involving civil penalties of \$50,000 or less and § 13.15(c)(3-5) for cases involving civil penalties in excess of \$50,000.) In this NPRM, the word "compromise" is used to refer to resolution of a civil penalty action without a formal finding of violation. Commenters are invited to suggest other terms, both for a

settlement of the amount of a civil penalty and a compromise resulting in no finding of violation, that may clarify this distinction in the agency's rules of practice.

As noted in the disposition of comments on the final rule, the agency's current practice is to issue an order under its authority assessing a civil penalty in all cases in which the agency is satisfied that a violation has occurred and that a civil penalty is appropriate. Such a policy can provide accountability for safety violations and thereby serve the public interest as a deterrent. The agency based its current policy on its reading of the statutory authority in question (i.e., authority to "assess" penalties under the program "upon written notice and finding of violation"), 49 U.S.C. App. 1475. In establishing this policy, the agency construed the statute to mean that Congress intended that the FAA exercise its authority in every instance rather than continue to accept "compromise" penalty payments without formal findings of violations.

The Chairman and other members of the Subcommittee, as well as critics of the agency's policy, have questioned whether the statute enabling the program requires, as opposed to authorizes, formal findings of violation. While the enabling language does state that the Administrator "may assess a civil penalty," it has been the agency's view that Congress intended this as general, discretionary authority to establish a program for administrative adjudication of cases under \$50,000, not discretion to initiate some cases under this authority and to initiate others under the previous (and also current, as to cases in excess of \$50,000) "compromise" system.

The agency is willing to consider a change in policy to allow compromises, in which it is expressly recognized that the alleged violator does not admit the allegations in a notice or complaint, but agrees to pay a penalty in order to avoid further litigation. At this time, the agency has not developed criteria to distinguish between cases involving civil penalties of \$50,000 or less that could be compromised without a finding of violation and those that should not be so compromised. Nor have critics thus far offered suggestions for making such distinctions. Commenters should address whether there are particular types of cases in which the public interest would be served or disserved by such compromises, or discuss the general criteria that would be appropriate for selecting cases in which such compromises should be acceptable to the agency. Commenters should

discuss any interests, both public and private, that might be affected by such compromises. The commenters also should discuss all relevant factual or policy bases for the agency's use of such compromises.

Commenters should discuss whether such compromises would enable a party to avoid collateral use of the order assessing civil penalty (i.e., use in subsequent court and administrative proceedings) and the public and private interests in avoiding such collateral use. Or, should such compromises be considered as relevant to that person's compliance history to enable at least the FAA, and perhaps the NTSB, to take them into account in the consideration of appropriate action in the event of a future violation by that person? The FAA requests comment on whether it is in the public interest for the FAA to consider previous civil penalty payments for alleged regulatory violations in subsequent administrative or judicial proceedings involving the same person or entity. If not, why not? To what extent, if any, should previous civil penalty payments be considered relevant by FAA, DOT, NTSB, or the courts in subsequent proceedings? If so, under what circumstances, in what sort of proceedings, and what amount of weight should be accorded such payments? Commenters should discuss, in light of public and private interests, the ability of the agency to restrict, and the purpose for restricting, any future use of a compromised civil penalty.

In this regard, the FAA notes that, in economic enforcement proceedings before the Department of Transportation, counsel for the Office of the Secretary have entered into compromise or settlement agreements with alleged violators in which the latter neither admit nor deny the allegations against them. In general, these agreements state expressly that the allegations asserted therein are nevertheless considered "findings" and they will be considered by the Department in determining appropriate action for future violations by the same person or entity. The FAA could adopt a similar policy and could publish its policy by incorporating it into FAA Order 2150.3A, Compliance and Enforcement Program, or by "codifying" that policy in § 13.16 of the regulations.

For example, § 13.16(p) could include a subsection or a statement to the effect that the agency may accept the payment of money and enter into "a civil penalty compromise agreement, in which a person charged with a violation does not admit the allegations contained in a notice of proposed civil penalty, if such

an agreement is in the public interest." Commenters are encouraged to discuss the merits of including such language in § 13.16. Commenters also are asked to discuss whether an amendment of § 13.16 should state in which cases the agency could consider such agreements or whether such a description would unduly limit the agency's authority to enter into such agreements. Commenters also may describe the compromise or settlement policies of other Federal agencies that the commenters believe should be considered by the FAA.

Of considerable interest to the agency is how accountability for violations of safety regulations could be preserved or enhanced by payment of a civil penalty without any adjudication or finding. How could the agency ensure that the payment of money without a finding of violation will not be treated by large commercial aviation entities as merely a cost of doing business? The authority to assess civil penalties was not sought initially by the FAA and has never been used as a means of collecting money. The challenge facing the agency is to ensure that payments of small civil penalties, without more, serve the objective of deterrence as effectively as civil penalty payments that contain findings of violations. The FAA specifically requests comment on whether compromises, in which there are only allegations and not findings of violations, contribute to a system of accountability for past violations and deterrence of future violations. Commenters are invited to suggest any alternatives to current FAA policy that achieve both the agency's interest in ensuring accountability and a party's interest in resolution of a case upon payment of civil penalty, but without an admission of guilt or a finding of violation.

In order to facilitate agency consideration of a policy to provide for some sort of compromise of civil penalties, commenters are encouraged to address the details or mechanics of their proposals so that the agency can formulate and evaluate an appropriate policy. For example, should the agency consider an offer to compromise only if it is made at certain times (e.g., any time before a hearing; before a hearing is requested and the administrative process has been invoked by a respondent; at the discretion of the FAA; any time in the proceedings, including before or after an administrative law judge issues an initial decision or the Administrator issues a final agency order)? Should the agency revise the definition or the title of an "order assessing civil penalty" so that this

document could encompass a compromised civil penalty action? Or should the agency issue a separate and different document in compromised civil penalties? If so, what kind of document should the agency issue, and what title should be given to that document, in cases that have been compromised to reflect payment of a civil penalty but also to show that a respondent has not admitted the allegations contained in a notice?

8. *Conforming amendments and editorial changes.* Several sections of the rules of practice, other than those to which specific objections and comments have been directed, have been set forth in this NPRM. Some sections of the rules have been included herein so that the rules will be consistent internally. For example, the definition of "party" and "respondent" would be changed to reflect the proposed redesignation of an "order of civil penalty" as a "complaint." Those sections of the rules that would be affected by the proposed redesignation have been set forth completely in the NPRM. Similarly, the definition of an "agency attorney" and the delegation of authority to initiate and assess civil penalties in § 13.16(c) would be revised to mirror the proposed changes to § 13.203 (separation of functions).

In several other sections, the FAA is proposing several editorial and conforming amendments to clarify the rules of practice and to reflect accurately the agency's statutory authority in certain matters. For example, the authority citation for part 13 would be revised to incorporate a recent statutory amendment to the FA Act. On November 18, 1988, the President signed the Federal Aviation Administration Drug Enforcement Assistance Act of 1988 (Pub. L. 100-690). That amendment, among other things, empowers the Administrator to initiate and assess civil penalties not exceeding \$50,000 for violations of title V of the FA Act, or a rule, regulation, or order issued thereunder, related to aircraft registration or recordation of title documents. The Administrator's authority in these civil penalty actions is identical to the authority granted under section 905 (the Civil Penalty Assessment Demonstration Program) except that it is permanent. Title V already was referenced in § 13.16(a); however, although not excluded under § 13.201 (the applicability section for the rules of practice), the authority to bring these civil penalty actions was not referenced specifically in the authority citation. In order to implement that statutory authority at the earliest

possible opportunity, the FAA proposes to reference the statutory amendment in the authority citation.

In addition, Congress in 1986 increased to \$10,000 the maximum civil penalty applicable where a person who boards or attempts to board any aircraft in air transportation or intrastate air transportation with a concealed deadly or dangerous weapon on or about his or her person or property that would be accessible in flight. 49 U.S.C. App. 1471(d). While the agency has clear authority to seek a penalty up to \$10,000 for such a violation, § 13.16 and the rules of practice should accurately reflect this authority. The FAA proposes simply to delete the reference to "\$1000" in § 13.16(a)(1), believing that reference to a specific dollar amount in that section is not necessary. Accordingly, any statutory civil penalty which is sought by the agency under its civil penalty assessment authority would be subject to the rules of practice in subpart G, as amended.

The FAA requests comment on the proposed conforming and editorial changes discussed above. However, it must be emphasized that the FAA does not want to delay the rulemaking action that would address the objections to the specific rules of practice that have been raised by the aviation community. Commenters should note any problems with the proposed conforming or editorial changes that might unduly delay adoption of the other changes proposed herein.

Regulatory Evaluation and Economic Consequences

The FAA has determined that this notice of proposed rulemaking is not a major rule under the criteria of Executive Order 12291; thus, the FAA is not required to prepare a draft Regulatory Impact Analysis under either the Executive Order or the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034; February 26, 1979).

In nonmajor rulemaking actions, the DOT Regulatory Policies and Procedures require the FAA to prepare a draft regulatory evaluation, analyzing the economic consequences of proposed regulations and quantifying, to the extent practicable, the estimated costs and anticipated benefits and impacts of proposed regulations. This notice invites comment on policy issues and proposes changes to the agency's rules of practice. If adopted, the FAA believes that the proposed changes to the rules of practice discussed in this NPRM, aimed more at perception than at substance, would not significantly alter the basic process by which civil penalties not

exceeding \$50,000 are adjudicated within, and assessed by, the agency. Instead, these proposals would address only those sections of the rules of practice that have been the subject of criticism and specific comment by the aviation industry. For example, the proposals discussed in this NPRM would change the designation of a document filed in civil penalty actions, expand certain sections of the rules to comport with existing statutes or regulations, eliminate several sentences that are perceived to favor the agency, and expand the discretion of an administrative law judge regarding submission of certain written documents in civil penalty actions.

Preliminarily, the FAA has not identified any specific economic consequences that would be attributed to the procedural changes discussed in this notice. Moreover, the FAA does not anticipate that the proposed changes would result in any significant costs or substantial benefits to respondents or the agency. If there are any costs or benefits associated with the changes to specific sections of the rules, the FAA expects that the any economic consequences or impacts would be minimal under the criteria of applicable Executive Orders, statutes, or regulations. If that expectation is accurate, the FAA would not be required to prepare a full regulatory evaluation of the changes adopted in any final rulemaking document.

Nevertheless, the agency will analyze the economic consequences, if any, of the proposed changes to the rules of practice. So that the FAA may prepare, if necessary, a full regulatory evaluation of changes to the rules of practice or the agency's policies, commenters are encouraged to submit for the agency's review any data regarding potential costs or expected benefits and impacts of any suggested changes made by the agency or proposals made by the commenters.

Commenters should discuss any significant economic impact, positive or negative, on small entities, as those terms are defined in the Regulatory Flexibility Act of 1980, that may arise from adopting the proposals in this notice. Commenters also should note any expected impact on trade opportunities for U.S. firms operating outside the United States or foreign firms operating within the United States. At this point, the FAA believes that neither small entities nor trade opportunities for businesses would be affected if the proposed changes were adopted. It is the FAA's preliminary opinion that the proposals in this NPRM do not have sufficient Federalism

implications to warrant preparation of a Federalism Assessment under the criteria of Executive Order 12612. Commenters should identify and discuss any Federalism issues that may be adversely affected if the proposals are adopted.

Conclusion

The FAA has determined that the NPRM is not a major regulation under the criteria of Executive Order 12291 and, thus, this action does not warrant preparation of a draft Regulatory Impact Analysis. The FAA also expects that the proposals in this NPRM, if adopted, would not have a significant economic impact, positive or negative, on a substantial number of small entities. Because the FAA has been unable to identify any economic consequences associated with the proposals in this NPRM, the agency has not prepared a full draft regulatory evaluation for this rulemaking. The FAA anticipates that there would be little or no economic cost or benefit associated with adoption of these proposals; thus, preparation of a full regulatory evaluation would not be required if the proposed changes are adopted. Because of the interest expressed by the public on the rules of practice, the FAA has determined that this notice of proposed rulemaking is significant under the Regulatory Policies and Procedures of the Department of Transportation (44 FR 11034; February 26, 1979).

List of Subjects in 14 CFR Part 13

Enforcement procedures,
Investigations, Penalties.

The Proposed Amendments

Accordingly, the FAA proposes to amend part 13 of the Federal Aviation Regulations (14 CFR part 13) as follows:

PART 13—INVESTIGATIVE AND ENFORCEMENT PROCEDURES

1. The authority citation for part 13 is revised to read as follows:

Authority: 49 U.S.C. App. 1354 (a) and (c), 1374(d), 1401-1406, 1421-1428, 1471, 1475, 1481, 1482(a), (b), and (c), and 1484-1489, 1523 (Federal Aviation Act of 1958) (as amended, 49 U.S.C. App. 1471(a)(3) (Federal Aviation Administration Drug Enforcement Assistance Act of 1988); 49 U.S.C. App. 1475 (Airport and Airway Safety and Capacity Expansion Act of 1987); 49 U.S.C. App. 1655(c) (Department of Transportation Act, as revised, 49 U.S.C. 166(g)); 49 U.S.C. 1727 and 1730 (Airport and Airway Development Act of 1970); 49 U.S.C. 1308, 1809, and 1810 (Hazardous Materials Transportation Act); 49 U.S.C. 2218 and 2219 (Airport and Airway Improvement Act of 1982); 49 U.S.C. 2201 (as amended, 49 U.S.C. App. 2218, Airport and Airway Safety and

Capacity Expansion Act of 1967); 18 U.S.C. 6002 and 6004 (Organized Crime Control Act of 1970); 49 CFR 1.47(f), (k), and (q) (Regulations of the Office of the Secretary of Transportation).

2. Section 13.16 is amended by revising the title of the section and revising paragraphs (a)(1), (c), (e)(3), (g)(3), (h), (l), and (m) to read as follows:

§ 13.16 Civil Penalties: Federal Aviation Act of 1958, as amended, involving an amount in controversy not exceeding \$50,000; Hazardous Materials Transportation Act.

(a) * * *

(1) Any person who violates any provision of Title III, V, VI, or XII of the Federal Aviation Act of 1958, as amended, or any rule, regulation, or order issued thereunder, is subject to a civil penalty of not more than the amount specified in the Act for each violation, in accordance with section 901 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1471, *et seq.*).

(c) The authority of the Administrator, under sections 901 and 905 of the Federal Aviation Act of 1958, as amended, and section 110 of the Hazardous Materials Transportation Act, to initiate and assess civil penalties for a violation of those Acts, or a rule, regulation, or order issued thereunder, is delegated to the Deputy Chief Counsel, the Assistant Chief Counsel for Regulations and Enforcement, and the Assistant Chief Counsel for a region or center. The authority of the Administrator to refer cases to the Attorney General of the United States, or the delegate of the Attorney General, for the collection of assessed civil penalties, is delegated to the Chief Counsel, the Deputy Chief Counsel, the Assistant Chief Counsel for Regulations and Enforcement, and the Assistant Chief Counsel for a region or center.

(e) * * *

(3) The person shall request a hearing, pursuant to paragraph (i) of this section, in which case a complaint shall be issued and shall be filed with the hearing docket clerk.

(g) * * *

(3) The person shall request a hearing, pursuant to paragraph (i) of this section, in which case a complaint shall be issued and shall be filed with the hearing docket clerk.

(h) *Complaint.* A complaint shall be issued if the person charged with a violation requests a hearing in accordance with paragraph (e)(3) or paragraph (g)(3) of this section.

(1) *Hearing.* If the person charged with the violation requests a hearing pursuant to paragraph (e)(3) or paragraph (g)(3) of this section, a complaint shall be issued and shall be filed with the hearing docket clerk. The procedural rules in subpart G of this part apply to the hearing and any appeal. At the close of the hearing, the administrative law judge shall issue, either orally on the record or in writing, an initial decision, including the reasons for the decision, that affirms, modifies, or reverses the allegations contained, or the civil penalty sought, in the complaint. If the administrative law judge affirms or modifies the allegations contained, or the civil penalty sought, in a complaint, the initial decision issued by the administrative law judge shall become an order assessing civil penalty if a party does not appeal the administrative law judge's initial decision to the FAA decisionmaker.

(m) *Appeal.* Either party may appeal the administrative law judge's initial decision to the FAA decisionmaker pursuant to the procedures in subpart G of this part. If a party files a notice of appeal pursuant to § 13.233 of subpart G, the effectiveness of the initial decision is stayed until a final decision and order of the Administrator has been entered on the record. The FAA decisionmaker shall review the record and issue a final decision and order of the Administrator that affirms, modifies, or reverses the initial decision. The FAA decisionmaker shall not assess a civil penalty in an amount greater than the amount stated in the complaint.

3. Section 13.201 is amended by revising paragraphs (a)(1) and (a)(2) to read as follows:

§ 13.201 Applicability.

(a) * * *

(1) A civil penalty action in which a complaint has been issued for an amount not exceeding \$50,000 for a violation arising under the Federal Aviation Act of 1958, as amended (49 U.S.C. 1301, *et seq.*), or a rule, regulation, or order issued thereunder.

(2) A civil penalty action in which a complaint has been issued for a violation arising under the Federal Aviation Act of 1958, as amended (49 U.S.C. 1471, *et seq.*) and the Hazardous Materials Transportation Act (49 U.S.C. 1801, *et seq.*), or a rule, regulation, or order issued thereunder.

4. Section 13.202 is amended by removing the definition "Order of Civil Penalty" and by revising the definitions "Agency attorney," "Complaint,"

"Party," and "Respondent" to read as follows:

§ 13.202 Definitions.

"*Agency attorney*" means the Deputy Chief Counsel, the Assistant Chief Counsel for Regulations and Enforcement, the Assistant Chief Counsel for a region or center, or an attorney on their staff who prosecutes a civil penalty action. An agency attorney shall not include the Chief Counsel, the Assistant Chief Counsel for Litigation, or any attorney on their staff who advises the FAA decisionmaker regarding an initial decision or any appeal to the FAA decisionmaker or who is supervised by a person who provides such advice in a civil penalty action.

"*Complaint*" means a document issued by an agency attorney pursuant to the Federal Aviation Act of 1958, as amended, or a rule, regulation, or order issued thereunder, or the Hazardous Materials Transportation Act, or a rule, regulation, or order issued thereunder, which has been filed with the Hearing Docket after a hearing has been requested pursuant to § 13.16(e)(3) or § 13.16(g)(3) of this subpart.

"*Party*" means the agency attorney, or the respondent named in a complaint.

"*Respondent*" means a person to whom a civil penalty is directed and who has received a complaint.

5. Section 13.203 is revised to read as follows:

§ 13.203 Separation of functions.

(a) Civil penalty proceedings, including hearings, shall be prosecuted by an agency attorney.

(b) An FAA employee engaged in the performance of investigative or prosecutorial functions in a civil penalty action shall not, in that case or a factually-related case, participate or give advice in a decision by the administrative law judge or by the FAA decisionmaker on appeal, except as counsel or a witness in the public proceedings. The prohibition described in this paragraph shall begin at the time that a notice of proposed civil penalty is issued.

(c) The Chief Counsel, the Assistant Chief Counsel for Litigation, and attorneys on their staff will advise the FAA decisionmaker regarding an initial decision or any appeal to the FAA decisionmaker.

6. Section 13.208 is amended by revising paragraph (a) to read as follows:

§ 13.208 Complaint.

(a) The agency attorney shall serve the original complaint on the person requesting the hearing.

7. Section 13.209 is amended by revising paragraphs (a), (d), and (f) to read as follows:

§ 13.209 Answer.

(a) *Writing required.* A person who receives a complaint shall file a written answer to the complaint, or a motion pursuant to § 13.218(f)(1-4) of this subpart, not later than 30 days after service of the complaint. The answer may be in the form of a letter but must be dated and signed by the person responding to the complaint. An answer may be typewritten or may be legibly handwritten.

(d) *Specific denial of allegations required.* A person filing an answer shall admit, deny, or state that the person is without sufficient knowledge or information to admit or deny each allegation in each numbered paragraph of the complaint. A general denial of the complaint is deemed a failure to file an answer. Any statement or allegation contained in the complaint that is not specifically denied in the answer is deemed an admission of the truth of that allegation.

(f) *Failure to file answer.* A person's failure to file an answer without good cause is deemed an admission of the truth of each allegation contained in the complaint and an order assessing civil penalty shall be issued.

8. Section 13.218 is amended by revising paragraphs (f) (1), (2), and (3) to read as follows:

§ 13.218 Motions.

(f) * * *

(1) *Motion to dismiss for insufficiency.* A party may file a motion to dismiss the complaint for insufficiency instead of an answer. If the administrative law judge denies the motion to dismiss the complaint for insufficiency, the party who received the complaint shall file an answer not later than 10 days after service of the administrative law judge's denial of the motion. A motion to dismiss the complaint for insufficiency must show that the complaint fails to state a violation of the Federal Aviation Act of 1958, as amended, or a rule, regulation, or order issued thereunder, or a violation of the Hazardous Materials Transportation Act, or a rule, regulation, or order issued thereunder.

(2) *Motion to dismiss.* A party may file a motion to dismiss a complaint instead of an answer, specifying the grounds for dismissal.

(ii) * * *

(ii) If the administrative law judge grants a motion to dismiss and terminates the proceedings with a hearing, the agency attorney may file an appeal pursuant to § 13.233 of this subpart. If the administrative law judge grants a motion to dismiss in part, the agency attorney may appeal the administrative law judge's decision to dismiss part of the complaint under the provisions of § 13.219(c) of this subpart. If required by the decision on appeal, the respondent shall file an answer with the administrative law judge and shall serve a copy of the answer on each party not later than 10 days after service of the decision on appeal.

(3) *Motion for more definite statement.* A party may file a motion for more definite statement of any pleading which requires a response under this subpart. A party shall set forth, in detail, the indefinite or uncertain allegations contained in a complaint or response to any pleading and shall submit the details that the party believes would make the allegation or response definite and certain.

(i) *Complaint.* A party may file a motion requesting a more definite statement of the allegations contained in the complaint instead of an answer. If the administrative law judge grants the motion, and the agency attorney does not supply a more definite statement not later than 15 days after service of the order granting the motion, the administrative law judge shall strike the allegations in the complaint to which the motion is directed. If the administrative law judge denies the motion, the respondent shall file an answer with the administrative law judge and shall serve a copy of the answer on each party not later than 10 days after service of the order of denial.

(ii) *Answer.* A party may file a motion requesting a more definite statement if an answer fails to clearly respond to the allegations in the complaint. If the administrative law judge grants the motion, the respondent shall supply a more definite statement not later than 15 days after service of the ruling on the motion. If the respondent fails to supply a more definite statement, the administrative law judge shall strike those statements in the answer to which the motion is directed. A party's failure to supply a more definite statement is deemed a failure to answer and the unanswered allegations in the complaint are deemed admitted.

9. Section 13.219 is amended by revising paragraph (c)(4) to read as follows:

§ 13.219 Interlocutory appeals.

(c) * * *

(4) A ruling by the administrative law judge granting, in part, a respondent's motion to dismiss a complaint pursuant to § 13.218(f)(2)(b).

10. Section 13.220 is amended by revising paragraph (l)(3) to read as follows:

§ 13.220 Discovery.

(l) * * *

(3) *Effect of admission.* Any matter admitted or deemed admitted under this section is conclusively established for the purpose of the hearing and appeal.

11. Section 13.227 is revised to read as follows:

§ 13.227 Testimony by agency employees.

An employee of the agency may not testify as an expert or opinion witness, for any party other than the agency, in any proceeding governed by this subpart.

12. Section 13.231 is revised to read as follows:

§ 13.231 Argument before the administrative law judge.

(a) *Arguments during the hearing.* During the hearing, the administrative law judge shall give the parties a reasonable opportunity to present oral arguments on the record supporting or opposing motions, objections, and rulings if the parties request an opportunity for argument. The administrative law judge may request or the parties may agree to file written arguments during the hearing where the administrative law judge finds that written argument is necessary or required for resolution of the issues or the case.

(b) *Final oral argument.* At the conclusion of the hearing and before the administrative law judge issues an initial decision in the proceedings, the parties are entitled to submit oral proposed findings of fact and conclusions of law, exceptions to rulings of the administrative law judge, and supporting arguments for the findings, conclusions, or exceptions. At the conclusion of the hearing, a party may waive final oral argument.

(c) *Posthearing briefs.* The administrative law judge may request or the parties may agree to file written posthearing briefs, instead of final oral argument, before the administrative law

judge issues an initial decision in the proceedings where the administrative law judge finds that written argument is necessary or required for resolution of the issues or the case. If a party files a written posthearing brief, the party shall include proposed findings of fact and conclusions of law, exceptions to rulings of the administrative law judge, and supporting arguments for the findings, conclusions, or exceptions. The administrative law judge shall give the parties a reasonable opportunity, not more than 30 days after receipt of the transcript, to prepare and submit the briefs.

13. Section 13.232 is revised to read as follows:

§ 13.232 Initial decision.

(a) *Contents.* The administrative law judge shall issue an initial decision at the conclusion of the hearing and may affirm, modify, or reverse the allegations contained, or the civil penalty sought, in the complaint. In each oral or written decision, the administrative law judge shall include findings of fact and conclusions of law, and the grounds supporting those findings and conclusions, upon all material issues of fact, the credibility of witnesses, the applicable law, any exercise of the administrative law judge's discretion, the amount of any civil penalty found appropriate by the administrative law judge, and a discussion of the basis for any order issued in the proceedings. The administrative law judge is not required to provide a written explanation for rulings on objections, procedural motions, and other matters not directly relevant to the substance of the initial decision. If the administrative law judge refers to any previous unreported or unpublished initial decision, the administrative law judge shall make copies of that initial decision available to all parties and the FAA decisionmaker.

(b) *Oral decision.* Except as provided in paragraph (c) of this section, at the conclusion of the hearing, the administrative law judge shall issue the initial decision and order orally on the record.

(c) *Written decision.* The administrative law judge may issue a written initial decision not later than 30 days after the conclusion of the hearing or submission of the last posthearing brief where the administrative law judge finds that a written initial decision is necessary or required for resolution of the issues or the case. The administrative law judge shall serve a copy of the written initial decision on each party.

(d) *Order assessing civil penalty.* If the administrative law judge affirms or modifies the allegations contained, or the civil penalty sought, in a complaint, the initial decision issued by the administrative law judge shall become an order assessing civil penalty.

Issued in Washington, DC on February 28, 1990.

Gregory S. Walden,
Chief Counsel.

[FR Doc. 90-4975 Filed 3-1-90; 10:00 am]
BILLING CODE 4910-13-M

14 CFR Part 13

[Docket No. 25690]

Rules of Practice for FAA Civil Penalty Actions

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of public meeting.

SUMMARY: This notice announces a meeting to provide an opportunity for public comment on proposed changes and policy issues related to the FAA's rules of practice implementing the civil penalty authority in actions not exceeding \$50,000 for a violation of the Federal Aviation Act of 1958, or any rule, regulation, or order issued thereunder. At the conclusion of a hearing before the House Subcommittee on Aviation of the Committee on Public Works and Transportation in November 1989, the FAA agreed to reexamine several objections to the rules of practice raised by individuals and by organizations representing air carriers, airport operators, and pilots. In addition to this public meeting, the FAA is soliciting written comments on the matters raised in a notice of proposed rulemaking published concurrently with this notice. The written comments and the comments received at this meeting will assist the FAA in its consideration of potential changes to the rules of practice to be applied in future and, where appropriate, pending civil penalty actions.

DATES: The public meeting will be held on March 12, 1990, from 9:00 a.m. to 4:00 p.m. Written comments on the notice of proposed rulemaking must be received on or before March 30, 1990.

ADDRESSES: The public meeting will be held in the FAA Auditorium, Federal Aviation Administration, 800 Independence Avenue, SW., 3rd Floor, Washington, DC 20591.

Comments on the notice of proposed rulemaking should be submitted, in

triplicate, to the Federal Aviation Administration, Office of the Chief Counsel, Attention: Rules Docket (AGC-10), Room 915G, Docket No. 25690, 800 Independence Avenue, SW., Washington, DC 20591. Comments submitted on the notice of proposed rulemaking must be marked "Docket No. 25690." Comments may be inspected in the Rules Docket (Room 915G) between 8:30 a.m. and 5:00 p.m. on weekdays, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Denise Daniels Ross, Special Assistant to the Chief Counsel (AGC-3), Federal Aviation Administration, 800 Independence Avenue SW., Washington, DC 20591; telephone (202) 267-3773.

SUPPLEMENTARY INFORMATION

Background

The House Subcommittee on Aviation of the Public Works and Transportation Committee held a hearing on November 15, 1989, to consider an extension of the FAA's authority to assess civil penalties administratively. The FAA and representatives of the aviation industry, among others, testified about the FAA's authority and the rules of practice implementing that authority. At the hearing, the rules of practice received a significant amount of criticism from the witnesses representing the aviation community.

On November 22, 1989, shortly before Congress concluded its legislative Session, a 4-month extension of the FAA's authority was passed (Public Law 101-236). The President signed that bill into law on December 15, 1989. Under that law, the FAA's authority to assess civil penalties now will expire on April 30, 1990 unless further extended by Congress.

At the conclusion of the Congressional hearing, the FAA agreed to review objections raised by those members of the aviation community who testified at the hearing and who previously commented on the rules. The FAA issued a notice of proposed rulemaking (NPRM) on February 28, 1990, published in a separate part of today's Federal Register.

In the NPRM, the agency discussed the most widespread objections to specific rules of practice. Specifically, these complaints focused on several areas of the rules of practice perceived to be biased in favor of the prosecution, to afford less process than desired in on-the-record hearings, or simply contrary to the interests of alleged violators. In the NPRM, the agency requested comment on possible changes to the

rules and a discussion of the public interest and policy served by amending the rules of practice in the manner suggested by participants at the Congressional hearing.

Purpose of the Public Meeting

The NPRM issued on February 28, 1990, is intended to fulfill a commitment made by the agency to the members of the House Subcommittee on Aviation of the Committee on Public Works and Transportation at the hearing held on November 15, 1989. In furtherance of that commitment, this public meeting affords an additional opportunity for interested persons to comment on the proposed changes, the policy and practical effect of the proposals, and to offer and justify other specific changes to the rules. Consistent with the agency's stated position in the NPRM, the FAA is not seeking comment at this public meeting on the legal issues contained in a petition for review filed by the Air Transport Association of America, currently pending before the United States Court of Appeals for the District of Columbia.

Because the authority given the Administrator has been extended only temporarily, the FAA must proceed expeditiously with this rulemaking

action. Consequently, the comment period for the NPRM and the notice provided for this meeting are relatively short. As stated in the NPRM, it is important that the aviation community understand that the speed with which the agency is proceeding is not intended to circumvent meaningful comment. Instead, the FAA requests the aviation community's cooperation in providing reasoned and constructive comment on the policies discussed in the NPRM within a relatively brief time period. The purpose of this meeting is to provide for the expeditious collection of widest possible public comment on the issues raised in the notice. The FAA intends to issue a final rulemaking document soon after the comment period for the NPRM closes.

Meeting Procedures

The meeting will be informal in nature and will be conducted by officials of the FAA. The meeting will be open to all persons on a space-available basis. There will be no admission fee or charge to attend the meeting.

Any person wishing to make a presentation to the FAA will be asked to sign an attendance list and to estimate the amount of time needed for any presentation. This procedure will permit

allocation of an appropriate amount of time for each speaker. The FAA may allocate the time available for each presentation in order to accommodate all speakers. The FAA will make every effort to see that each person on the attendance list has an opportunity to address the panel of FAA officials. The FAA may adjourn the meeting at any time if all persons present have had the opportunity to speak.

Any person who wishes to present a position paper or written comments dealing with the issues raised in the NPRM to the panel is encouraged to submit those comments to the docket prior to the meeting but may present the comments to the panel at the meeting. The meeting will be recorded to ensure that each speaker's oral comments are noted accurately. A copy of the transcript of the oral comments and any written comments received at the hearing will be placed in the public docket for this rulemaking.

Issued in Washington, DC on February 28, 1990.

Gregory S. Walden,
Chief Counsel.

[FR Doc. 90-4976 Filed 3-1-90; 10:00 am]

BILLING CODE 4910-13-M

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 27, 29, and 133

[Docket No. 25570, Amdts. 27-26, 29-30, and 133-12]

FIN 2120-AA29

Airworthiness Standards; Rotorcraft Regulatory Review Program Amendment No. 4

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This rule adopts new and revised airworthiness standards for certification of airframe and related equipment on both normal and transport category rotorcraft. In addition, one amendment changes an operating rule affecting external load operators. These amendments grew out of a rotorcraft regulatory review program and the recognition by both government and industry that updated safety standards are needed. These amendments provide a high level of safety in design requirements, while removing certain unnecessary existing burdens and better utilizing the unique characteristics and capabilities of rotorcraft.

EFFECTIVE DATE: April 5, 1990.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 5, 1990.

FOR FURTHER INFORMATION CONTACT: Mr. James H. Major, FAA, Rotorcraft Directorate, Aircraft Certification Service, Fort Worth, Texas 76193-0111, telephone (817) 624-5117.

SUPPLEMENTARY INFORMATION:

Background

These amendments are the last in a series of amendments issued as a part of the Rotorcraft Regulatory Review Program. The first of the series of amendments in this program addressed applicability and icing certification standards and was published in the *Federal Register* on January 31, 1983 (48 FR 4374). The second of the series of amendments dealt with rotorcraft flight characteristics and systems and equipment and was published in the *Federal Register* on November 6, 1984 (49 FR 44422). The third in the series upgraded operation and maintenance rules and was published in the *Federal Register* on November 7, 1986 (51 FR 40692). The fourth in the series involved the powerplant, rotor drive mechanism, and their associated support systems,

and was published in the *Federal Register* on September 2, 1988 (53 FR 34198).

These amendments are based on Notice of Proposed Rulemaking (NPRM) No. 88-7 published in the *Federal Register* on March 21, 1988 (53 FR 9190). In addition, a correction notice, containing minor editorial changes, was published in the *Federal Register* on April 5, 1988 (53 FR 11162).

All interested persons have been given an opportunity to participate in the making of these amendments and due consideration has been given to all matters presented. A number of nonsubstantive changes and minor changes of an editorial and clarifying nature have been made to the proposals based upon relevant comments received and upon further review by the FAA. Except as indicated herein, the proposals contained in the notice have been adopted without change.

A total of six commenters responded to the notice. The commenters represented airframe manufacturers, airworthiness authorities of other countries, rotorcraft owners and operators, and individuals. A majority of the commenters agree with the substance of the NPRM and, in addition, recommend several changes. These recommendations and their dispositions are contained in the following discussion.

Discussion of Comments

Sections 27.307-29.307 Proof of Structure

The notice proposed to clarify these sections by revising paragraph (a) of each section to require proof of compliance with the strength and deformation requirements of subpart C (parts 27 and 29) for the environmental conditions that the structure will experience in operation. These standards apply to metallic as well as composite (nonmetallic) structures.

One commenter supports the proposal for § 29.307 and notes that the requirement also applies to metal components, since the strength of bonded joints in metal structures can be susceptible to temperature and humidity. Another commenter, commenting on both §§ 27.307 and 29.307, agrees with accounting for potential environmental effects but recommends a change to ensure that mandatory full-scale environmental tests would not be required unless necessary. Rather than the wording "in the environment," the commenter recommends "accounting for the environment" to allow coupon/element environmental tests or analysis when

based on proper substantiation. The FAA agrees, and the proposals are adopted with this change. In addition, an editorial change is made to both standards. The word "structures" is added after "those" in the second sentence of each paragraph (a) to clarify the use of structural analysis.

Sections 27.337/29.337 Limit Maneuvering Load Factor

The notice proposed to clarify these standards by revising paragraphs (a) and (b) and adding new subparagraphs (b)(1) and (b)(2) to § 27.337.

The revisions, which also make the two sections parallel, reflect present certification practice in the application of each of these sections. One commenter questions whether the proposal for § 29.337 clarifies the standard, but provided no alternate wording. Therefore, these amendments are adopted as proposed.

Sections 27.351/29.351 Yawing Conditions

The notice proposed to add a new § 27.351 for normal category rotorcraft yawing conditions. Rotorcraft manufacturers have advocated yawing standards for part 27, and several designs have been voluntarily substantiated for yawing conditions. This amendment ensures that objective and limited yawing conditions are considered and uniformly applied for structural design of normal category rotorcraft. No comments were received on the proposal for § 27.351.

The notice also proposed to revise § 29.351 to establish a maximum sideslip angle of 15° at V_{NE} (never-exceed speed) or V_H (maximum speed in level flight with maximum continuous power), whichever is less, and 90° at 0.6 V_{NE} . The design sideslip angle for airspeeds between these two speed points must vary directly with the airspeed. Smaller sideslip angles may be used when substantiated. One commenter was not certain that the specific figure of 15° sideslip at V_{NE} will always be conservative but recommended no other value. Fifteen degrees has been used in the past, and experience shows that it provides a safe structural design standard for rotorcraft.

Therefore, these proposals are adopted without change.

Sections 27.391/29.391 Control Surface and System Loads, General

References to new §§ 27.427 and 29.427 concerning unsymmetrical loads on the horizontal stabilizer need to be added to §§ 27.391 and 29.391 on control surfaces. In addition, a previous

omission is corrected by adding § 27.399 to the reference list in § 27.391. No comments were received, and these amendments are adopted as proposed.

Sections 27.395/29.395 Control System

The notice proposed to divide paragraph (b) of these sections into three subparagraphs for clarification of control boost or actuation systems and to add a new paragraph (b)(4) that contains an increase in minimum design load. The increase in design load accounts for possible jamming, ground gusts, control inertia, or friction.

One comment was received on § 29.395 supporting the proposal. These amendments are adopted as proposed.

Sections 27.427/29.427 Unsymmetrical Loads

The notice proposed to add new and identical §§ 27.427 and 29.427 requiring application of unsymmetrical loads when evaluating horizontal stabilizing surfaces on normal and transport category rotorcraft. Design loads derived from a rational analysis or the proposed empirical design load distributions may be used.

One commenter addressed the proposal for new § 29.427 for transport rotorcraft and agrees that unsymmetrical load distribution on the rotorcraft empennage is different from airplanes due to the unique configuration of rotorcraft. The commenter also agrees with the necessity for a standard but notes that the requirements of paragraph (b)(1) are arbitrary and may not be conservative for certain designs. In the absence of more data, the commenter recommends that the load on the empennage should be related to the maximum loads obtained from all the symmetrical design conditions that have been used to design the rotorcraft as a whole, rather than the proposed loading case.

The FAA has evaluated this comment for both the normal and transport category rotorcraft proposals and disagrees with the suggestion to omit the proposed design loads. Specified design loads are a viable means of achieving safe structural aircraft designs. Further, the specified load distribution is conservative in comparison to the existing standard for small airplanes. The commenter does not provide a substantive argument or recommend an additional factor or design loads to eliminate the alleged lack of conservatism of the design loads or conditions proposed in the notice. The proposal for §§ 27.427 and 29.427 are, therefore, adopted without change.

Sections 27.501/29.501 Ground Loading Conditions: Landing Gear with Skids

The notice proposed to reduce the inward- and outward-acting sideload standard by 50 percent for skid landing gear on normal and transport category rotorcraft. In addition, the notice proposed to distribute the special empirical skid tube, mid-point obstruction design loads evenly.

One commenter supports the proposal for § 29.501 as being a more realistic design requirement. These standards are adopted as proposed.

Section 29.519 Hull type rotorcraft: Water Based and Amphibian

The notice proposed to remove the reference to "limited amphibian" from this section since limited amphibian configurations are obsolete. The notice also proposed to require consideration of wave profiles and the most critical wave and further proposed to define a reference line for the vertical descent velocity.

One comment was received. The commenter supports the proposal and offers an editorial suggestion of inserting the conjunction "and" between the words "hull" and "auxiliary" in paragraph (a). The FAA agrees, and the proposal is adopted with this change.

Sections 27.563/29.563 Structural Ditching Provisions

The notice proposed extensive revisions to these sections to add new standards that would provide a consistent basis for design and evaluation of rotorcraft ditching configurations.

Three commenters responded to these proposals.

One commenter does not recommend a change in the proposals but notes that guidance material for yaw attitude and forward velocity contained in Advisory Circulars (AC) 27-1, Certification of Normal Category Rotorcraft, dated August 29, 1985, and 29-2A, Certification of Transport Category Rotorcraft, dated September 16, 1987, is not consistent with the proposal. The FAA recognizes this, and future changes to the advisory circulars will reflect these amendments.

Another commenter recommends a change to the introductory text of § 27.563 to include an evaluation of survival equipment operation as well as the rotorcraft structure for a particular sea state. The commenter strongly believes that sea state considerations should be an integral part of rotorcraft ditching certification; however, a specific sea state was not recommended.

These standards concern structural strength of the rotorcraft and the associated aircraft flotation devices and not the use or application of the survival equipment. The operating rules are the proper place for such equipment rules. To add either an evaluation of survival equipment operation or a specific sea state to the standard is beyond the scope of the notice. However, guidance material, such as that found in AC's 27-1 and 29-2A, refers to Sea State 4, as defined by the World Meteorological Organization, as an appropriate sea state to consider in pursuing ditching configuration approvals under §§ 27.801 and 29.801.

A third commenter, responding to § 29.563, agrees with adopting a structural design standard for rotorcraft ditching. The commenter notes that one-engine failure and a resulting "ditching" are not as likely as a total power failure or other failure that results in an autorotational landing or ditching at sea. In the commenter's view, the requirement should reflect "an autorotational descent" not a "one-engine-out touchdown." Further, due to "difficulty in achieving accurate control over an autorotational landing," the commenter suggests a forward velocity at touchdown of up to two-thirds of the best autorotational descent speed (V_y) rather than the 30 knots or a lower descent speed as proposed. The commenter further recommends a 6.5 feet per second limit vertical descent speed based on the landing gear design standard rather than the proposed 5 feet per second limit descent velocity which is derived from the minor crash conditions of §§ 27.561(b)(3) and 29.561(b)(3).

Adopting these additional recommendations is beyond the scope of the notice. An editorial change was made to clarify paragraph (b)(1) in each standard by revising the last sentence to read " * * * the float deployed airspeed operating limit multiplied by 1.11." rather than "1.11 of the float deployed airspeed operating limit." Therefore, these proposals are adopted with the editorial change to paragraph (b)(1).

Sections 27.571/29.571 Fatigue Evaluation of Flight Structure

The notice proposed to revise the introductory text of paragraph (a) and paragraph (a)(4) of § 27.571 to require fatigue evaluation of the landing gear, assessment of the effects of the ground-air-ground cycle on the entire rotorcraft, and assessment of the effects of external cargo operations on the rotorcraft whenever approval of an external cargo configuration is requested.

As stated in the notice, a note may be added to the rotorcraft type certification data sheet to convey that an external cargo configuration (which is optional) was not presented for evaluation and approval. However, the type certificate applicant would normally present this type of a configuration for approval, and such a note would be unlikely.

One comment was received on § 27.571. The commenter recommends changes to the proposal to consider the operators who either do not conduct external load lift operations or who only conduct such operations infrequently. The commenter states that the proposal, if adopted without change, would place an undue burden (or penalty) on certain operators. In addition, the commenter states that it is possible to establish a factor that conservatively reduces the basic service life of affected components for each external load lift.

The proposal addressed optional configurations such as external cargo (load lift) operations and other high frequency, high power cycle operations. The FAA believes that this standard can be applied equitably to all operators. The comment relates more to the application of the proposed standard than to the standard itself, and application of the standard can be more appropriately addressed by examples in advisory material. Related draft advisory material for transport category rotorcraft fatigue evaluation was published in Draft AC 29.571-X, Fatigue Evaluation of Transport Category Rotorcraft Structure (51 FR 45424; December 18, 1986). Similar advisory material addressing types of operations and loading spectrum will be developed, if necessary, for normal category rotorcraft. The proposal for § 27.571 is, therefore, adopted as proposed.

The notice also proposed to amend § 29.571 in a manner similar to that proposed for § 27.571 to require fatigue evaluation of the landing gear, assessment of the effects of the ground-air-ground cycle on the entire rotorcraft (not just the landing gear), and assessment of the effects of applicable external cargo operations on a transport category rotorcraft. The FAA has proposed to amend § 29.571 in Notice 86-13, Rotorcraft Structural Fatigue and Damage Tolerance (51 FR 33704; September 22, 1986) by adding a requirement for flaw tolerance to the fatigue evaluation of transport category rotorcraft structure. Notice 86-13 includes the requirement proposed in Notice 88-7. Therefore, the proposal to amend § 29.571 in this rulemaking is not adopted.

Sections 27.613/29.613 Material Strength Properties and Design Values

The notice proposed to amend §§ 27.613 and § 29.613 to include material property design standards for rotorcraft materials that parallel the airplane standards, and to correct an address. Material property design standards are not affected by the aircraft type or category.

One commenter responded to the proposal to amend § 29.613 and notes that the proposed revision to paragraph (b) eliminates the need for a directive verb in proposed paragraph (d). The commenter recommends "may" instead of "must" in paragraph (d) to signify that applicants may use materials which meet published design values or which are otherwise satisfactory. The FAA agrees, and since this comment also applies to § 27.613, both sections have been changed. Except for the wording change in paragraph (d), the standards are adopted as proposed.

Sections 27.629/29.629 Flutter

The notice proposed to remove the word "part" and insert the words "aerodynamic surface" in these sections. These revisions prevent any misunderstanding since flutter is an aeroelastic phenomenon associated with aerodynamic surfaces, such as stabilizers, fins, control surfaces, wings, and rotor blades.

One comment was received on the proposal for § 29.629. The commenter contends that the proposed requirement is inadequate but did not submit a counterproposal. The commenter provides arguments and procedures for an analysis but concludes by recommending advisory material to encompass procedures, criteria, and concerns. The commenter's recommendation will be considered and may be included in future advisory material, but it is not appropriate for an objective design standard such as § 29.629. These proposals are, therefore, adopted without change.

Sections 27.663/29.663 Ground Resonance Prevention Means

The notice proposed to amend paragraph (a) of § 27.663 to include failure assessment and allow the use of analysis or tests to prove that a malfunction or failure of a single means will not result in ground resonance of the rotorcraft (dynamic instability of the rotorcraft while in contact with the ground). No comments were received on § 27.663, and this section is adopted as proposed.

In addition, the notice proposed to revise paragraph (a) of § 29.663 to

include failure assessment and to allow the use of analysis or tests to prove that a malfunction or failure of a single means will not cause ground resonance of the rotorcraft. The notice also proposed to revise paragraph (b) to result in a standard parallel to present § 27.663(b).

One comment was received on § 29.663. The commenter recommends adding a specific level of reliability in paragraph (a) or initiating guidance material. The FAA will consider adding a reliability value to advisory material as the commenter recommends, but amending the standard is beyond the scope of the notice. It is noted that compliance with the standard may be achieved by means other than reliability methods; e.g., by showing that malfunction or failure of a single means will not cause ground resonance. In this way, a deterministic method rather than a probability assessment method may be employed. This section is adopted as proposed.

Sections 27.674/29.674 Interconnected Controls

The notice proposed to add new §§ 27.674 and 29.674 for interconnected controls. These proposed standards would require continued operation of the flight control systems after malfunction, failure, or jamming of an interconnected flight control or engine control for normal and transport category rotorcraft. These standards specifically include primary flight controls such as the cyclic and collective controls, if interconnected.

One commenter contends that these proposals are unrealistic and unnecessary in light of the present flight control design standards and the excellent service experience of primary flight controls, even for those that are interconnected. The commenter also states that safe flight is generally impossible after a malfunction, failure, or jam of a primary control. The commenter proposes to limit the standard to consideration of malfunctions of auxiliary controls when connected to primary flight controls since current state-of-the-art flight control system designs can address malfunctions of an auxiliary control when connected to a primary control. These systems allow continued safe flight and landing after such malfunctions. The FAA agrees, and the comment is incorporated.

Another comment was received on § 29.674 that applies equally to § 27.674. The commenter suggests inserting the word "primary" between "each" and "flight" for clarity and further suggests

that the examples given in the last clause of the proposal are confusing and should be deleted.

The FAA agrees with the commenter's recommendations and further agrees that the present standards provide for reliable primary control systems. Therefore, proposed §§ 27.674 and 29.674 are revised to apply to each primary flight control when connected to an auxiliary control, and the last clause, which contains examples, is removed. Advisory material will be used to provide examples. The amendments are also clarified by adding the words "and landing" after "safe flight." This completes the last and final phase of a safe flight. In addition, an editorial change to § 29.674 reverses the words "independently operate" to "operate independently" to agree with § 27.674. The amendments to §§ 27.674 and 29.674 are adopted with the changes discussed.

Section 27.685 Control System Details

The notice proposed to amend the standard for control system details by adding a new paragraph (d) for cable control system standards and new paragraphs (e) and (f), identical to § 29.685 (e) and (f) for control system bearing standards. This amendment adds design standards for a cable control system that are similar to those for transport rotorcraft control system found in § 29.685(d). No comments were received. The proposal is adopted without change.

Sections 27.727/29.727 Reserve Energy Absorption Drop Test

The notice proposed to clarify these sections by adding a definition for the collapse of any type landing gear on normal and transport category rotorcraft. One comment was received in support of these proposals. The proposals are adopted without change.

Section 29.755 Hull Buoyancy

The notice proposed to remove paragraph (b), which contains superfluous standards for limited amphibian hull buoyancy, and to remove the designator "(a)" from paragraph (a). Present §§ 29.519 and 29.803 for rotorcraft ditching configurations are sufficient. See the discussions of §§ 29.519 and 29.803 for further information. No comments were received, and the proposal is adopted without change.

Sections 27.783/29.783 Doors

The notice proposed to revise paragraph (b) of § 27.783 by removing the word "disc" following "rotor" to avoid possible confusion between rotorcraft rotors and turbine engine rotor discs. For passenger protection, the

notice proposed to further revise paragraph (b) to require consideration of engine intakes, exhausts, and propellers so that the requirements parallel those of proposed § 29.783(b). No comments were received on § 27.783, and it is adopted as proposed.

The notice also proposed to revised paragraphs (b) and (c) of § 29.783 to clarify the standard and improve protection of passengers and other persons who use rotorcraft doors. Two commenters were received.

One commenter suggests retaining the sentence from present § 27.783(b) for the standard to require the location of passenger doors way from any rotor disc. The commenter, however, would rely on door operating procedures only when the door could not be located away from any rotor disc. The commenter supports the remaining aspects of the proposal. The FAA believes the amendment, as adopted, achieves the overall objective of the comment, but further advisory material may be developed, as necessary, to explain the standard concerning door location and/or procedures related to the potential hazards that are listed in the amendment.

Another commenter proposes adding a new paragraph (h) to refer to § 29.783(e) and exclude cargo, baggage, and service doors that are not suitable or approved as passenger exits. The FAA disagrees. As stated in the notice proposal for § 29.783, the FAA intends to require that "each external door" not "just the passenger doors" be included in the evaluation. Rotorcraft cargo and baggage doors are commonly loaded or unloaded with the engines running and rotors turning.

No commenters object to adding the phrase "persons crowding against doors, including inward opening doors" to paragraph (c). However, as an editorial oversight, the phrase "with the rotorcraft on the ground" was dropped from the second sentence in paragraph (c) in the notice. Other than adding this phrase back into the amendment as an editorial change to paragraph (c), § 29.783 is adopted as proposed.

Section 29.803 Emergency Evacuation

The notice proposed to remove and reserve paragraph (c) concerning limited amphibians (current helicopters are designed for ditching rather than limited amphibious operations) and to add new paragraphs (d) and (e). New paragraph (d) addresses and evacuation demonstration for certain rotorcraft designs, and paragraph (e) allows a combination of analysis and tests or demonstrations, as prescribed. The explanation in the notice contained a

sequence for use in determining when a demonstration is required. Appendix D to part 29, adopted herein, contains the demonstration procedures.

One commenter contends that the proposal is confusing and does not achieve the objective expressed in the explanation. The commenter also raises questions about the standard, as related to exits, exit size, and the number of passengers, and suggests that a cabin seating capacity of less than 40 seats may be more critical than higher capacity arrangements. In addition, the commenter recommends an evacuation demonstration of all larger rotorcraft, while resting on one side, as an objective measurement of compliance with § 29.807(c)(1). The NPRM proposed an evacuation demonstration for rotorcraft resting on their sides for configurations that have only side exits and a maximum seating capacity of 10 or more passengers. The commenter states that a single, small roof exit complies with the present standard and the proposed standard but contends it may not suffice for rapid evacuation of the rotorcraft. The commenter also contends that the proposal would allow provision of a roof exit to exempt the rotorcraft from an evacuation demonstration. The commenter further suggests that demonstration criteria be related to 10 or more passengers per exit and suggests that the number of passengers should be related to the exit size.

The FAA disagrees with the commenter. The present certification standards for interior arrangements and exits have provided an acceptable level of safety for transport rotorcraft. The present exit locations and size, as related to the number of passengers, have proven satisfactory. The amendment adds explicit demonstration requirements rather than relying on the application of design standards alone. The amendment addresses the concerns for "dense" interior arrangements for either smaller or larger transport rotorcraft designs. An evacuation demonstration of every transport rotorcraft design has not been required in the past and is unnecessary. A second commenter requests that the FAA withdraw the proposals for paragraph (d)(3) of § 29.803, paragraph (c)(2) of § 29.807, and associated paragraph (b) of the new Appendix D that would require evacuation demonstrations with rotorcraft resting on their side for certain configurations. The commenter recommends a standard similar to current § 29.807(c). The commenter contends that a mandatory rollover evacuation demonstration is not

justified by service history and that the cost of such a demonstration would unduly restrain rotorcraft design flexibility without contributing to passenger safety. The commenter states that an evacuation demonstration with the rotorcraft resting on its side would cost from \$500,000 to \$800,000, disregarding liability insurance costs. This is significantly higher than the \$125,000 to \$300,000 cost range estimate in Notice 88-7 for the one-time evacuation demonstration with the rotorcraft upright. Since the concerns of the second commenter are beyond the scope of the notice, separate rulemaking will be necessary to achieve the intent of the commenter's proposal. Accordingly, proposed paragraph (d)(3) of § 29.803 is not adopted. Other than this change, the amendment is adopted as proposed. For comments on related changes, see § 29.807 and Appendix D.

Section 29.805 Flightcrew Emergency Exits

The notice proposed to amend the standard to ensure that crew exits are not obstructed in the event of a "ditching." One comment was received which supports the proposal. An editorial change is made to the first sentence of paragraph (c) by removing "may" and inserting "must." The proposal is adopted with this editorial change.

Sections 27.807/29.807 Passenger Emergency Exits

The notice proposed to amend paragraph (c) of § 29.807 to add options allowing approval of smaller transport rotorcraft designs having only side-of-fuselage exits. These options include (1) an evacuation demonstration; (2) design features to allow evacuation of rotorcraft having nine or less passengers with the rotorcraft on its side; or (3) design features that minimize the probability of the rotorcraft coming to rest on its side. One comment was received in support of this part of the proposal. As noted in the comments for § 29.803, a commenter objects to requiring an evacuation demonstration with the rotorcraft resting on its side and requests that proposed § 29.807 (c)(2) and (c)(3) be withdrawn. For the reasons stated in the discussions for § 29.803, the FAA agrees, and proposed paragraphs § 29.807 (c)(2) and (c)(3) are not adopted.

In addition, the notice proposed to amend the "ditching" exit standards in both §§ 27.807(d) and 29.807(d) to ensure the exits are not blocked during the conditions or obstructions noted.

One commenter responded to the proposals for both §§ 27.807(d) and

29.807(d). The commenter recommends changes (exit threshold below the water line) which would allow water to enter the cabin interior, thereby reducing the rotorcraft height above the water, improving the stability, and reducing the probability of capsizing in rough seas. The commenter acknowledges that stability on the water must be approved with the exits open and water inside the cabin.

The commenter justifies the recommendation by stating that the helicopter's stability on water can be significantly improved by reducing its center of gravity height above the water level. This improvement in stability compensates for the inconvenience of water over the threshold and inside the cabin, which cannot be avoided in rough seas anyway. Positive stability characteristics are essential for safety. The commenter suggests that larger ditching exits should be used to accommodate passengers who wear life jackets or survival clothing.

A commenter submitted an interpretation of the phrase "be above the water line" for the transport rotorcraft exit standard. The commenter states that operators, especially North Sea operators, support the interpretation to allow water above the exit threshold. The comment was directed at advisory material and not to the standard.

The FAA agrees that capsize stability would be improved by adopting these recommendations; however, they far exceed the scope of the notice to ensure that exits are usable. The commenters did not otherwise disagree with the proposal. The proposals for §§ 27.807(d) and 29.807(d) are, therefore, adopted without change.

Section 29.809 Emergency Exit Arrangement

The notice proposed to amend this standard for exit arrangement to include consideration of descent provisions with the landing gear damaged or the rotorcraft resting on its side and to provide specific criteria for the slide currently required for a floor level exit. The notice also proposed to allow a rope or other means to assist descent instead of the slide, provided an evacuation demonstration is successfully completed.

One comment was received. The commenter agrees with the intent to provide for damaged or disarranged landing gear in the demonstration but questions that necessity for a slide at a floor level exit when the exit threshold is less than 6 feet from the ground. Contrary to the commenter's statement, none is required by the standard. The commenter expresses concern with

potential problems in complying with the proposal whenever the rotorcraft is resting on its side, but this concern is adequately addressed by the requirements of §§ 29.803 and 29.807. In addition, the commenter opposes use of a rope in place of a slide. Since the use of a rope is restricted to helicopters having 30 seats or fewer and requires an evacuation demonstration to validate the effectiveness of using the rope, the FAA disagrees.

Finally, the commenter suggests consideration of the words "appropriate assist means" rather than "slide" for paragraph (f). The FAA does not agree. The word "slide" is more appropriate and is derived from a similar standard, § 25.809(f)(1), for airplanes.

The proposal is, therefore, adopted without change.

Section 29.811 Emergency Exit Marking

The notice proposed to allow a 2-inch colored band outlining each exit release lever or device of each exit if the exit is also normally used for entering and leaving the rotorcraft. One comment was received which supports the proposal. The proposal is adopted without change.

Section 29.855 Cargo and Baggage Compartments

The notice proposed to amend the standard to allow small, accessible cargo and baggage compartments to be lined with passenger compartment materials rather than fire resistant materials.

One comment was received. The commenter believes protective breathing equipment should be required. The FAA disagrees because rotorcraft are typically unpressurized, have simple ventilation systems, fly at altitudes of 3,000 feet or less above the ground, and do not have integral supplemental oxygen systems. For rotorcraft with small, accessible compartments of 200 cubic feet or less, protective breathing equipment for appropriate crewmembers is unnecessary as an airworthiness standard. Protective breathing equipment, typically portable, may be imposed by the applicable operating rules when necessary for certain rotorcraft cargo operations. Therefore, the proposal is adopted without change.

Sections 27.861/29.861 Fire Protection of Structures, Controls, and Other Parts

The notice proposed to amend §§ 27.861 and 29.861 to allow use of fireproof material parts in areas affected by powerplant fires, in normal category and transport Category B rotorcraft.

without further proof or qualification. One comment was received on both proposals. The commenter notes that the definition of "fireproof" in § 1.1 of part 1 does not specify the temperature and time interval for which a fireproof part must continue to perform its intended function.

The commenter provided a hypothetical case which assumes a steel drive shaft is exposed to a 2,000 °F fire for 30 minutes. In the case, the steel drive shaft could sustain sufficient loss of stiffness to affect airworthiness adversely. The FAA finds the hypothetical case overly conservative and unreasonable. The FAA currently accepts use of fireproof parts, without further proof, in areas affected by aircraft powerplant fires as stated in §§ 23.865 and 25.865 for airplanes and § 29.861(d) for transport category A rotorcraft. The level of safety for § 27.861 is, in general, increased by adoption of the proposal, not decreased.

Also, the specific extreme case presented by the commenter may be adequately addressed, when necessary, by application of § 21.21(b)(2). The definition of fireproof advocated by the commenter agrees with the FAA-accepted definition such as that found in AC 23-2, "Flammability Tests," dated August 20, 1984; i.e., 2,000 °F exposure for 15 minutes. Specific design features for future rotorcraft designs may be evaluated, as they have in the past, by use of fireproof materials in conjunction with any other design consideration under § 21.21(b)(2).

Notwithstanding the concern of the commenter, the standards cited for airplanes and transport rotorcraft have been found to provide safe aircraft. The equivalent standard should be extended to normal category and transport category B rotorcraft as an option within the standards proposed in the notice. The proposals are, therefore, adopted without change.

Sections 27.865/29.865 External Load Attaching Means

The notice proposed to amend §§ 27.865 and 29.865 to allow use of a design factor less than 2.5 g's, provided the lower load factor is not likely to be exceeded by virtue of the rotorcraft characteristics and capability. It also proposed to exclude fatigue evaluation of the cargo attaching means except as stated in the requirements.

Two comments were received that apply to both sections. One commenter recommends significant changes to the proposal to address both a "vertical" type of Class B rotorcraft-load combination and a "nonvertical" type of Class C rotorcraft-load combination

such as wire pulling or stringing. The commenter recommends removing the sections referenced in the proposal and adding phrases to allow use of a reduced design load factor, since the application of the specific sections does not implement the objective of the proposal. In addition, for the nonvertical type load (Class C or noncargo hook), the external load is primarily horizontal and the maximum maneuver load factor is well below 2.5 g's.

The commenter recommends a standard allowing use of a design "load factor due to flight and design characteristics for which authorization is requested * * *" In conjunction with the reduced load factor, the load direction would be "in any direction for which there is a possibility of loading."

The citation of the standards is essential to establish the rational design load factor, which is less than 2.5 g's. The commenter's recommendation may have merit, but the present standard and its predecessor have been used successfully for both vertical and nonvertical types of loads. Further, to reduce the design load factor below 2.5 g's, other than as proposed, is beyond the scope of the notice.

Another commenter agrees with the proposal but further recommends amending the driveshaft standard of § 27.935, Shafting joints, to require the applicant to list the maximum driveshaft misalignment angle and further prove that this angle will not be exceeded for all types of operation for which certification is requested. This recommendation is beyond the scope of the notice and is, therefore, not adopted. Additional advisory material may address the driveshaft misalignment problem encountered in certain external cargo operations.

One commenter recommends an editorial change to remove the word "of" and insert "times" in place thereof to clarify that the maximum external load is multiplied by the factor in the standard. The FAA agrees; however, instead of the word "times," the words "multiplied by" are being inserted to clarify the standard even further.

One additional comment was submitted specifically for proposed § 29.865. The commenter expresses dissatisfaction with the proposed reduction in the design limit load factor below 2.5 g's. The FAA notes that the reduction in load factor is related to the characteristics and capability of the rotorcraft design approved under the standards referenced. (For example, reduced load factors below 2.5 g's are already provided for in current § 29.337.) The commenter further notes fatigue substantiation is not required for the

attaching means, and rotorcraft use in "external cargo" service results in temporary, high loads for the reasons cited by the commenter. Fatigue evaluation of external cargo attaching means was not proposed in the notice; failure of the attaching means is not considered a hazard to the rotorcraft because "emergency" release of the cargo is a typical feature and requirement.

The commenter also states that the effect of the external load and operations on the whole rotorcraft must be determined. The commenter offered examples such as swinging loads. However, the commenter would consider the proposal to amend § 29.865 acceptable if the fatigue substantiation proposal to amend § 29.571 were adopted. As noted above, the FAA has not adopted proposed § 29.571. The fatigue substantiation of the whole rotorcraft for certain heavy-lift operations has been proposed in Notice 86-13, and the issue raised by the commenter will be addressed in that proceeding, if adopted.

Therefore, the proposals to amend §§ 27.865 and 29.865 are adopted without change.

Section 29.1415 Ditching Equipment

The notice proposed to revise the equipment standard of § 29.1415 for ditching equipment to agree with the operating rules. The operating rules require enough liferafts to accommodate the occupants of the aircraft. The amendment to paragraph (b)(1) requires at least two liferafts to accommodate all occupants.

Two commenters responded, and both disagree with the proposal. One recommends changing the operating rules instead of the airworthiness standards, and the other suggests that the airworthiness standards supplement the operating rules cited.

The FAA notes that the operating rules supplement or complement the airworthiness standards and that they also apply to airplanes. Consideration of the loss of a liferaft is not in operating rules such as FAP parts 91 and 135, which are typically used for helicopter operations. Changing the operating rules is beyond the scope of the notice.

One commenter further states that rotorcraft have a higher probability of ditching and should have more stringent requirements such as those contained in present § 29.1415(b)(1). The commenter's experience in actual ditchings is that loss of liferafts can be expected, and asserts that the standard should not be relaxed; i.e., sufficient liferafts should be required to provide for all occupants if

one liferaft is lost. The FAA disagrees. Experience under current operating rules has shown that excess capacity of liferafts beyond the rated capacity has been sufficient without also requiring excess liferafts. Therefore, the proposal is adopted without change.

Appendix D to Part 29—Criteria for Demonstration of Emergency Evacuation Procedures Under § 29.803

The notice proposed to add a new appendix D that contains the provisions, criteria, or conditions for compliance with the emergency evacuation demonstration standards required by § 29.803, as amended. One commenter supports the proposal.

Notice 89-23 (54 FR 37414; September 8, 1989), proposes, in part, to change the age and sex distribution of participants for use in the evacuation demonstration of transport airplanes having 44 or more passengers. This proposed change would avoid the risk of injury to participants over 60 years of age and prevent violation of state child labor laws while complying with airplane evacuation demonstration standards. The proposed change to part 25 was considered "comparable to * * * current (part 25 rules)" (i.e., the new distribution of age and sex for the mixture of demonstration participants is expected to give results comparable to those demonstrations with the current age and sex distribution of participants). Since the age and sex distribution proposed in Notice 89-23 for transport airplanes is different from the distribution proposed in Notice 88-7 for rotorcraft, possible final rulemaking action resulting from Notice 89-23 will be evaluated to determine if additional rulemaking is warranted for transport rotorcraft. Adopting the age and sex distribution proposals of Notice 89-23 at this time is beyond the scope of Notice 88-7.

Another commenter responding to § 29.803 requests that the FAA withdraw the proposals related to an evacuation demonstration with the rotorcraft resting on its side, and the FAA agrees. Because of the resulting changes to § 29.803, corresponding changes are also necessary to appendix D. Therefore, appendix D is revised by deleting paragraph (b), by deleting the title and designator for paragraph (a), and by redesignating the remaining paragraphs respectively. This proposal is adopted with the changes discussed.

Section 133.43 Structure and Design

The notice proposed to amend this operating rule to allow use of restricted category (military) rotorcraft cargo hook systems that have a primary and manual

load release device. No comments were received, and the proposal is adopted without change.

Regulatory Evaluation Summary

Introduction

This is a summary of the industry cost impact and benefit assessment for RRRP Amendment No. 4. This amendment adds new standards, amends existing airframe and related equipment standards in parts 27 and 29, and amends external cargo standards in part 133.

Summary

The estimates of economic impacts for the changes to parts 27 and 29, and the change to part 133, are based on the best information currently available to the FAA. This information indicates that the great majority of the amendments update the FAR to reflect current technology and, therefore, would have negligible or no cost.

The amendment to § 29.803(d)(3) expected to have some economic impact is related to the added emergency evacuation demonstration required for two categories of rotorcraft: (1) Those with a seating capacity of more than 44 passengers and (2) those with 10 or more passengers per exit, no main aisle to each row of seats, and access to each passenger exit by virtue of design features of seats, such as folding or break-over seat backs or folding seats. The evacuation demonstration is to be conducted with the rotorcraft in an upright position. Although few rotorcraft are now included in these categories, future certifications are possible.

The FAA requested detailed information on evacuation demonstration costs from interested persons, including rotorcraft manufacturers, in Notice No. 88-7. However, such costs were not provided during the comment period. The FAA's own estimates, based on evacuation demonstrations or tests conducted with small airplanes having 10 or more passengers, indicate one-time discounted certification costs ranging from \$61,470 to \$102,450 in 1989 dollars.

The expected benefit of requiring demonstrations is the assurance that the emergency exits allow rapid evacuation in the event of an incident or accident. Available data of past transport rotorcraft accidents do not identify whether an insufficient number of, or difficult to reach, emergency exits contributed to injuries or fatalities in otherwise survivable accidents, but it is possible that this could occur if emergency egress is not assured for certain transport rotorcraft designs. In

terms of dollar benefits, the evacuation demonstration requirement will be cost beneficial if only one life were saved over the operating life of the rotorcraft design (assumed to be 20 years).

Regulatory Flexibility Determination

The FAA has determined that under the criteria of the Regulatory Flexibility Act (RFA) of 1980, the amendments to parts 27, 29, and 133 will not have a significant economic impact on a substantial number of small entities. The RFA requires agencies to specifically review rules which may have a "significant economic impact on a substantial number of small entities." Significant economic impact on a small manufacturer, one with fewer than 75 employees, means annualized net compliance costs greater than or equal to the threshold value of \$15,340, in 1988 dollars. A substantial number of small entities means a number which is not less than 11 and which is more than one-third of the small entities subject to a proposed or existing rule, or any number of small entities affected which is substantial in the judgment of the rulemaking official. Only 2 of the 10 rotorcraft manufacturers that are subject to the amendments to parts 27 and 29 have fewer than 75 employees, neither one of which would incur costs by an amount in excess of the threshold cost value as a result of these amendments.

International Trade Impact Statement

The FAA believes that the certification costs that may be imposed by the amendments will not result in a competitive trade disadvantage for U.S. manufacturers in domestic or foreign markets. This conclusion is based on the fact that foreign manufacturers must comply with the certification standards of parts 27 and 29 as a condition of entry into the U.S. market, which is the largest segment of their export market. The FAA further believes that to remain competitive in overseas markets, foreign vendors will export similarly equipped rotorcraft to both the United States and other countries. Foreign and U.S. rotorcraft manufacturers are expected to pass the new certification costs on to consumers.

Federalism Implications

The regulations adopted herein will 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. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not

have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

Conclusion

For the reasons discussed in the preamble, and based on the findings in the Regulatory Flexibility Determination and the International Trade Impact Analysis, the FAA has determined that this regulation is not major under Executive Order 12291. In addition, the FAA certifies that these amendments do not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. These amendments are considered nonsignificant under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A regulatory evaluation of the amendments, including a Regulatory Flexibility Determination and Trade Impact Analysis, has been placed in the docket. A copy may be obtained by contacting the person identified under "FOR FURTHER INFORMATION CONTACT."

List of Subjects:

14 CFR Parts 27 and 29

Air transportation, Aircraft, Aviation safety, Safety, Rotorcraft, Incorporation by reference.

Part 133

Aircraft, Narcotics, Pilots, Drugs, Mail.

Adoption of the Amendments

Accordingly, parts 27, 29 and 133 of the Federal Aviation Regulations (14 CFR parts 27, 29, and 133) are amended as follows:

PART 27—AIRWORTHINESS STANDARDS: NORMAL CATEGORY ROTORCRAFT

1. The authority citation for part 27 continues to read as follows:

Authority: 49 U.S.C. 1344, 1354(a), 1355, 1421, 1423, 1425, 1428, 1429, and 1430; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

2. Section 27.307 is amended by revising paragraph (a) to read as follows:

§ 27.307 Proof of structure.

(a) Compliance with the strength and deformation requirements of this subpart must be shown for each critical loading condition accounting for the environment to which the structure will be exposed in operation. Structural analysis (static or fatigue) may be used only if the structure conforms to those structures for which experience has shown this method to be reliable. In

other cases, substantiating load tests must be made.

3. Section 27.337 is revised to read as follows:

§ 27.337 Limit maneuvering load factor.

The rotorcraft must be designed for—

(a) A limit maneuvering load factor ranging from a positive limit of 3.5 to a negative limit of -1.0 ; or

(b) Any positive limit maneuvering load factor not less than 2.0 and any negative limit maneuvering load factor of not less than -0.5 for which—

(1) The probability of being exceeded is shown by analysis and flight tests to be extremely remote; and

(2) The selected values are appropriate to each weight condition between the design maximum and design minimum weights.

4. A new § 27.351 is added to read as follows:

§ 27.351 Yawing conditions.

(a) Each rotorcraft must be designed for the loads resulting from the maneuvers specified in paragraphs (b) and (c) of this section with—

(1) Unbalanced aerodynamic moments about the center of gravity which the aircraft reacts to in a rational or conservative manner considering the principal masses furnishing the reacting inertia forces; and

(2) Maximum main rotor speed.

(b) To produce the load required in paragraph (a) of this section, in unaccelerated flight with zero yaw, at forward speeds from zero up to $0.6 V_{NE}$ —

(1) Displace the cockpit directional control suddenly to the maximum deflection limited by the control stops or by the pilot force specified in § 27.395(a);

(2) Attain a resulting sideslip angle or 90° , whichever is less; and

(3) Return the directional control suddenly to neutral.

(c) To produce the load required in paragraph (a) of this section, in unaccelerated flight with zero yaw, at forward speeds from $0.6 V_{NE}$ up to V_{NE} or V_H , whichever is less—

(1) Displace the cockpit directional control suddenly to the maximum deflection limited by the control stops or by the pilot force specified in § 27.395(a);

(2) Attain a resulting sideslip angle or 15° , whichever is less, at the lesser speed of V_{NE} or V_H ;

(3) Vary the sideslip angles of paragraphs (b)(2) and (c)(2) of this section directly with speed; and

(4) Return the directional control suddenly to neutral.

5. Section 27.391 is revised to read as follows:

§ 27.391 General.

Each auxiliary rotor, each fixed or movable stabilizing or control surface, and each system operating any flight control must meet the requirements of §§ 27.395, 27.397, 27.399, 27.401, 27.403, 27.411, 27.413, and 27.427.

6. Section 27.395 is amended by revising paragraph (b) to read as follows:

§ 27.395 Control system.

(b) Each primary control system, including its supporting structure, must be designed as follows:

(1) The system must withstand loads resulting from the limit pilot forces prescribed in § 27.397.

(2) Notwithstanding paragraph (b)(3) of this section, when power-operated actuator controls or power boost controls are used, the system must also withstand the loads resulting from the force output of each normally energized power device, including any single power boost or actuator system failure.

(3) If the system design or the normal operating loads are such that a part of the system cannot react to the limit pilot forces prescribed in § 27.397, that part of the system must be designed to withstand the maximum loads that can be obtained in normal operation. The minimum design loads must, in any case, provide a rugged system for service use, including consideration of fatigue, jamming, ground gusts, control inertia, and friction loads. In the absence of rational analysis, the design loads resulting from 0.60 of the specified limit pilot forces are acceptable minimum design loads.

(4) If operational loads may be exceeded through jamming, ground gusts, control inertia, or friction, the system must withstand the limit pilot forces specified in § 27.397, without yielding.

7. A new § 27.427 is added following § 27.413 and before the heading, Ground Loads, to read as follows:

§ 27.427 Unsymmetrical loads.

(a) Horizontal tail surfaces and their supporting structure must be designed for unsymmetrical loads arising from yawing and rotor wake effects in combination with the prescribed flight conditions.

(b) To meet the design criteria of paragraph (a) of this section, in the absence of more rational data, both of the following must be met:

(1) One hundred percent of the maximum loading from the symmetrical flight conditions in § 27.413 acts on the surface on one side of the plane of symmetry, and no loading acts on the other side.

(2) Fifty percent of the maximum loading from the symmetrical flight conditions in § 27.413 acts on the surface on each side of the plane of symmetry but in opposite directions.

(c) For empennage arrangements where the horizontal tail surfaces are supported by the vertical tail surfaces, the vertical tail surfaces and supporting structure must be designed for the combined vertical and horizontal surface loads resulting from each prescribed flight condition, considered separately. The flight conditions must be selected so the maximum design loads are obtained on each surface. In the absence of more rational data, the unsymmetrical horizontal tail surface loading distributions described in this section must be assumed.

8. Section 27.501 is amended by revising paragraphs (d)(3) and (f)(2)(ii) to read as follows:

§ 27.501 Ground loading conditions: Landing gear with skids.

(d) * * *

(3) The total sideload must be applied equally between the skids and along the length of the skids.

(f) * * *

(2) * * *

(ii) Distributed equally over 33.3 percent of the length between the skid tube attachments and centrally located midway between the skid tube attachments.

9. Section 27.563 is revised to read as follows:

§ 27.563 Structural ditching provisions.

If certification with ditching provisions is requested, structural strength for ditching must meet the requirements of this section and § 27.801(e).

(a) *Forward speed landing conditions.* The rotorcraft must initially contact the most critical wave for reasonably probable water conditions at forward velocities from zero up to 30 knots in likely pitch, roll, and yaw attitudes. The rotorcraft limit vertical descent velocity may not be less than 5 feet per second relative to the mean water surface. Rotor lift may be used to act through the center of gravity throughout the landing impact. This lift may not exceed two-thirds of the design maximum weight. A maximum forward velocity of less than 30 knots may be used in design if it can

be demonstrated that the forward velocity selected would not be exceeded in a normal one-engine-out touchdown.

(b) *Auxiliary or emergency float conditions—(1) Floats fixed or deployed before initial water contact.* In addition to the landing loads in paragraph (a) of this section, each auxiliary or emergency float, of its support and attaching structure in the airframe or fuselage, must be designed for the load developed by a fully immersed float unless it can be shown that full immersion is unlikely. If full immersion is unlikely, the highest likely float buoyancy load must be applied. The highest likely buoyancy load must include consideration of a partially immersed float creating restoring moments to compensate the upsetting moments caused by side wind, unsymmetrical rotorcraft loading, water wave action, rotorcraft inertia, and probable structural damage and leakage considered under § 27.801(d). Maximum roll and pitch angles determined from compliance with § 27.801(d) may be used, if significant, to determine the extent of immersion of each float. If the floats are deployed in flight, appropriate air loads derived from the flight limitations with the floats deployed shall be used in substantiation of the floats and their attachment to the rotorcraft. For this purpose, the design airspeed for limit load is the float deployed airspeed operating limit multiplied by 1.11.

(2) *Floats deployed after initial water contact.* Each float must be designed for full or partial immersion prescribed in paragraph (b)(1) of this section. In addition, each float must be designed for combined vertical and drag loads using a relative limit speed of 20 knots between the rotorcraft and the water. The vertical load may not be less than the highest likely buoyancy load determined under paragraph (b)(1) of this section.

10. Section 27.571 is amended by revising the introductory text of paragraph (a) and paragraph (a)(4) to read as follows:

§ 27.571 Fatigue evaluation of flight structure.

(a) *General.* Each portion of the flight structure (the flight structure includes rotors, rotor drive systems between the engines and the rotor hubs, controls, fuselage, landing gear, and their related primary attachments), the failure of which could be catastrophic, must be identified and must be evaluated under paragraph (b), (c), (d), or (e) of this section. The following apply to each fatigue evaluation:

(4) The loading spectra must be as severe as those expected in operation including, but not limited to, external cargo operations, if applicable, and ground-air-ground cycles. The loading spectra must be based on loads or stresses determined under paragraph (a)(3) of this section.

11. Section 27.613 is amended by revising paragraphs (b) and the introductory text of (d) and by adding a new paragraph (e) to read as follows:

§ 27.613 Material strength properties and design values.

(b) Design values must be chosen to minimize the probability of structural failure due to material variability. Except as provided in paragraphs (d) and (e) of this section, compliance with this paragraph must be shown by selecting design values that assure material strength with the following probability—

(1) Where applied loads are eventually distributed through a single member within an assembly, the failure of which would result in loss of structural integrity of the component, 99 percent probability with 95 percent confidence; and

(2) For redundant structure, those in which the failure of individual elements would result in applied loads being safely distributed to other load-carrying members, 90 percent probability with 95 percent confidence.

(d) Design values may be those contained in the following publications (available from the Naval Publications and Forms Center, 5601 Tabor Avenue, Philadelphia, Pennsylvania 19120) or other values approved by the Administrator:

(e) Other design values may be used if a selection of the material is made in which a specimen of each individual item is tested before use and it is determined that the actual strength properties of that particular item will equal or exceed those used in design.

§ 27.629 [Amended]

12. Section 27.629 is amended by removing the word "part" and inserting in place thereof the words "aerodynamic surface."

13. Section 27.663 is amended by revising paragraph (a) to read as follows:

§ 27.663 Ground resonance prevention means.

(a) The reliability of the means for preventing ground resonance must be shown either by analysis and tests, or reliable service experience, or by showing through analysis or tests that malfunction or failure of a single means will not cause ground resonance.

14. A new § 27.674 is added to read as follows:

§ 27.674 Interconnected controls.

Each primary flight control system must provide for safe flight and landing and operate independently after a malfunction, failure, or jam of any auxiliary interconnected control.

15. Section 27.685 is amended by adding new paragraphs (d), (e), and (f) to read as follows:

§ 27.685 Control system details.

(d) Cable systems must be designed as follows:

(1) Cables, cable fittings, turnbuckles, splices, and pulleys must be of an acceptable kind.

(2) The design of the cable systems must prevent any hazardous change in cable tension throughout the range of travel under any operating conditions and temperature variations.

(3) No cable smaller than three thirty-seconds of an inch diameter may be used in any primary control system.

(4) Pulley kinds and sizes must correspond to the cables with which they are used. The pulley cable combinations and strength values which must be used are specified in Military Handbook MIL-HDBK-5C, Vol. 1 & Vol. 2, Metallic Materials and Elements for Flight Vehicle Structures, (Sept. 15, 1976, as amended through December 15, 1978). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. section 552(a) and 1 CFR part 51. Copies may be obtained from the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, Pennsylvania, 19120. Copies may be inspected at the FAA, Rotorcraft Standards Staff, 4400 Blue Mount Road, Fort Worth, Texas, or at the Office of the Federal Register, 1100 L Street NW., Room 8301, Washington, DC.

(5) Pulleys must have close fitting guards to prevent the cables from being displaced or fouled.

(6) Pulleys must lie close enough to the plane passing through the cable to prevent the cable from rubbing against the pulley flange.

(7) No fairlead may cause a change in cable direction of more than 3°.

(8) No clevis pin subject to load or motion and retained only by cotter pins may be used in the control system.

(9) Turnbuckles attached to parts having angular motion must be installed to prevent binding throughout the range of travel.

(10) There must be means for visual inspection at each fairlead, pulley, terminal, and turnbuckle.

(e) Control system joints subject to angular motion must incorporate the following special factors with respect to the ultimate bearing strength of the softest material used as a bearing:

(1) 3.33 for push-pull systems other than ball and roller bearing systems.

(2) 2.0 for cable systems.

(f) For control system joints, the manufacturer's static, non-Brinell rating of ball and roller bearings must not be exceeded.

16. Section 27.727 is amended by revising paragraph (c) to read as follows:

§ 27.727 Reserve energy absorption drop test.

(c) The landing gear must withstand this test without collapsing. Collapse of the landing gear occurs when a member of the nose, tail, or main gear will not support the rotorcraft in the proper attitude or allows the rotorcraft structure, other than the landing gear and external accessories, to impact the landing surface.

17. Section 27.783 is amended by revising paragraph (b) to read as follows:

§ 27.783 Doors.

(b) Each external door must be located where persons using it will not be endangered by the rotors, propellers, engine intakes, and exhausts when appropriate operating procedures are used. If opening procedures are required, they must be marked inside, on or adjacent to the door opening device.

18. Section 27.807 is amended by revising paragraph (d) to read as follows:

§ 27.807 Emergency exits.

(d) *Ditching emergency exits for passengers.* If certification with ditching provisions is requested, one emergency exit on each side of the fuselage must be proven by test, demonstration, or analysis to—

(1) Be above the waterline;

(2) Have at least the dimensions specified in paragraph (b) of this section; and

(3) Open without interference from flotation devices whether stowed or deployed.

19. Section 27.861 is revised to read as follows:

§ 27.861 Fire protection of structure, controls, and other parts.

Each part of the structure, controls, rotor mechanism, and other parts essential to a controlled landing that would be affected by powerplant fires must be fireproof or protected so they can perform their essential functions for at least 5 minutes under any foreseeable powerplant fire conditions.

20. Section 27.865 is amended by revising the introductory text of paragraph (a) and by adding a new paragraph (d) to read as follows:

§ 27.865 External load attaching means.

(a) It must be shown by analysis or test, or both, that the rotorcraft external load attaching means can withstand a limit static load equal to 2.5, or some lower factor approved under §§ 27.337 through 27.341, multiplied by the maximum external load for which authorization is requested. The load is applied in the vertical direction and in any direction making an angle of 30° with the vertical, except for those directions having a forward component. However, the 30° angle may be reduced to a lesser angle if—

(d) The fatigue evaluation of § 27.571(a) does not apply to this section except for a failure of the cargo attaching means that results in a hazard to the rotorcraft.

PART 29—AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY ROTORCRAFT

21. The authority citation for part 29 continues to read as follows:

Authority: 49 U.S.C. 1344, 1354(a), 1355, 1421, 1423, 1424, 1425, 1426, 1429, and 1430; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

22. Section 29.307 is amended by revising paragraph (a) to read as follows:

§ 29.307 Proof of structure.

(a) Compliance with the strength and deformation requirements of this subpart must be shown for each critical loading condition accounting for the environment to which the structure will be exposed in operation. Structural analysis (static or fatigue) may be used only if the structure conforms to those structures for which experience has shown this method to be reliable. In

other cases, substantiating load tests must be made.

23. Section 29.337 is amended by revising paragraph (a) and the introductory text of paragraph (b) to read as follows:

§ 29.337 Limit maneuvering load factor.

(a) A limit maneuvering load factor ranging from a positive limit of 3.5 to a negative limit of -1.0; or

(b) Any positive limit maneuvering load factor not less than 2.0 and any negative limit maneuvering load factor of not less than -0.5 for which—

24. Section 29.351 is revised to read as follows:

§ 29.351 Yawing conditions.

(a) Each rotorcraft must be designed for the loads resulting from the maneuvers specified in paragraphs (b) and (c) of this section, with—

(1) Unbalanced aerodynamic moments about the center of gravity which the aircraft reacts to in a rational or conservative manner considering the principal masses furnishing the reacting inertia forces; and

(2) Maximum main rotor speed.

(b) To produce the load required in paragraph (a) of this section, in unaccelerated flight with zero yaw, at forward speeds from zero up to $0.6 V_{NE}$ —

(1) Displace the cockpit control suddenly to the maximum deflection limited by the control stops or by the maximum pilot force specified in § 29.395(a);

(2) Attain a resulting sideslip angle or 90° , whichever is less; and

(3) Return the directional control suddenly to neutral.

(c) To produce the load required in paragraph (a) of the section, in unaccelerated flight with zero yaw, at forward speeds from $0.6 V_{NE}$ up to V_{NE} or V_H , whichever is less—

(1) Displace the cockpit directional control suddenly to the maximum deflection limited by the control stops or by the pilot force specified in § 29.395(a);

(2) Attain a resulting sideslip angle or 15° , whichever is less, at the lesser speed of V_{NE} or V_H ;

(3) Vary the sideslip angles of paragraphs (b)(2) and (c)(2) of this section directly with speed; and

(4) Return the directional control suddenly to neutral.

25. Section 29.391 is revised to read as follows:

§ 29.391 General.

Each auxiliary rotor, each fixed or movable stabilizing or control surface, and each system operating any flight control must meet the requirements of §§ 29.395 through 29.403, 29.411, 29.413, and 29.427.

26. Section 29.395 is amended by revising paragraph (b) to read as follows:

§ 29.395 Control system.

(b) Each primary control system, including its supporting structure, must be designed as follows:

(1) The system must withstand loads resulting from the limit pilot forces prescribed in § 29.397;

(2) Notwithstanding paragraph (b)(3) of this section, when power-operated actuator controls or power boost controls are used, the system must also withstand the loads resulting from the limit pilot forces prescribed in § 29.397 in conjunction with the forces output of each normally energized power device, including any single power boost or actuator system failure;

(3) If the system design or the normal operating loads are such that a part of the system cannot react to the limit pilot forces prescribed in § 29.397, that part of the system must be designed to withstand the maximum loads that can be obtained in normal operation. The minimum design loads must, in any case, provide a rugged system for service use, including consideration of fatigue, jamming, ground gusts, control inertia, and friction loads. In the absence of a rational analysis, the design loads resulting from 0.60 of the specified limit pilot forces are acceptable minimum design loads; and

(4) If operational loads may be exceeded through jamming, ground gusts, control inertia, or friction, the system must withstand the limit pilot forces specified in § 29.397, without yielding.

27. A new § 29.427 is added following § 29.413 and before the heading, Ground Loads, to read as follows:

§ 29.427 Unsymmetrical loads.

(a) Horizontal tail surfaces and their supporting structure must be designed for unsymmetrical loads arising from yawing and rotor wake effects in combination with the prescribed flight conditions.

(b) To meet the design criteria of paragraph (a) of this section, in the absence of more rational data, both of the following must be met:

(1) One hundred percent of the maximum loading from the symmetrical flight conditions in § 29.413 acts on the

surface on one side of the plane of symmetry, and no loading acts on the other side.

(2) Fifty percent of the maximum loading from the symmetrical flight conditions in § 29.413 acts on the surface on each side of the plane of symmetry, in opposite directions.

(c) For empennage arrangements where the horizontal tail surfaces are supported by the vertical tail surfaces, the vertical tail surfaces and supporting structure must be designed for the combined vertical and horizontal surface loads resulting from each prescribed flight condition, considered separately. The flight conditions must be selected so that the maximum design loads are obtained on each surface. In the absence of more rational data, the unsymmetrical horizontal tail surface loading distributions described in this section must be assumed.

28. Section 29.501 is amended by revising paragraphs (d)(3) and (f)(2)(ii) to read as follows:

§ 29.501 Ground loading conditions: Landing gear with skids.

(d) * * *

(3) The total sideload must be applied equally between skids and along the length of the skids.

(f) * * *

(2) * * *

(ii) Distributed equally over 33.3 percent of the length between the skid tube attachments and centrally located midway between the skid tube attachments.

29. Section 29.519 is amended by revising the section heading and by revising paragraphs (a), (b), and (c) to read as follows:

§ 29.519 Hull type rotorcraft: Water-based and amphibian.

(a) *General.* For hull type rotorcraft, the structure must be designed to withstand the water loading set forth in paragraphs (b), (c), and (d) of this section considering the most severe wave heights and profiles for which approval is desired. The loads for the landing conditions of paragraphs (b) and (c) of this section must be developed and distributed along and among the hull and auxiliary floats, if used, in a rational and conservative manner, assuming a rotor lift not exceeding two-thirds of the rotorcraft weight to act throughout the landing impact.

(b) *Vertical landing conditions.* The rotorcraft must initially contact the most critical wave surface at zero forward speed in likely pitch and roll attitudes

which result in critical design loadings. The vertical descent velocity may not be less than 6.5 feet per second relative to the mean water surface.

(c) *Forward speed landing conditions.* The rotorcraft must contact the most critical wave at forward velocities from zero up to 30 knots in likely pitch, roll, and yaw attitudes and with a vertical descent velocity of not less than 6.5 feet per second relative to the mean water surface. A maximum forward velocity of less than 30 knots may be used in design if it can be demonstrated that the forward velocity selected would not be exceeded in a normal one-engine-out landing.

30. Section 29.563 is revised to read as follows:

§ 29.563 Structural ditching provisions.

If certification with ditching provisions is requested, structural strength for ditching must meet the requirements of this section and § 29.801(e).

(a) *Forward speed landing conditions.* The rotorcraft must initially contact the most critical wave for reasonably probable water conditions at forward velocities from zero up to 30 knots in likely pitch, roll, and yaw attitudes. The rotorcraft limit vertical descent velocity may not be less than 5 feet per second relative to the mean water surface. Rotor lift may be used to act through the center of gravity throughout the landing impact. This lift may not exceed two-thirds of the design maximum weight. A maximum forward velocity of less than 30 knots may be used in design if it can be demonstrated that the forward velocity selected would not be exceeded in a normal one-engine-out touchdown.

(b) *Auxiliary or emergency float conditions.*—(1) *Floats fixed or deployed before initial water contact.* In addition to the landing loads in paragraph (a) of this section, each auxiliary or emergency float, or its support and attaching structure in the airframe or fuselage, must be designed for the load developed by a fully immersed float unless it can be shown that full immersion is unlikely. If full immersion is unlikely, the highest likely float buoyancy load must be applied. The highest likely buoyancy load must include consideration of a partially immersed float creating restoring moments to compensate the upsetting moments caused by side wind, unsymmetrical rotorcraft loading, water wave action, rotorcraft inertia, and probable structural damage and leakage considered under § 29.801(d). Maximum roll and pitch angles determined from compliance with § 29.801(d) may be

used, if significant, to determine the extent of immersion of each float. If the floats are deployed in flight, appropriate air loads derived from the flight limitations with the floats deployed shall be used in substantiation of the floats and their attachment to the rotorcraft. For this purpose, the design airspeed for limit load is the float deployed airspeed operating limit multiplied by 1.11.

(2) *Floats deployed after initial water contact.* Each float must be designed for full or partial immersion prescribed in paragraph (b)(1) of this section. In addition, each float must be designed for combined vertical and drag loads using a relative limit speed of 20 knots between the rotorcraft and the water. The vertical load may not be less than the highest likely buoyancy load determined under paragraph (b)(1) of this section.

31. Section 29.613 is amended by revising paragraph (b) and the introductory text of paragraph (d) and by adding a new paragraph (e) to read as follows:

§ 29.613 Material strength properties and design values.

(b) Design values must be chosen to minimize the probability of structural failure due to material variability. Except as provided in paragraphs (d) and (e) of this section, compliance with this paragraph must be shown by selecting design values that assure material strength with the following probability—

(1) Where applied loads are eventually distributed through a single member within an assembly, the failure of which would result in loss of structural integrity of the component, 99 percent probability with 95 percent confidence; and

(2) For redundant structures, those in which the failure of individual elements would result in applied loads being safely distributed to other load-carrying members, 90 percent probability with 95 percent confidence.

(d) Design values may be those contained in the following publications (available from the Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120) or other values approved by the Administrator:

(e) Other design values may be used if a selection of the material is made in which a specimen of each individual item is tested before use and it is determined that the actual strength

properties of that particular item will equal or exceed those used in design.

§ 29.629 [Amended]

32. Section 29.629 is amended by removing the word "part" and inserting in place thereof the words "aerodynamic surface."

33. Section 29.663 is revised to read as follows:

§ 29.663 Ground resonance prevention means.

(a) The reliability of the means for preventing ground resonance must be shown either by analysis and tests, or reliable service experience, or by showing through analysis or tests that malfunction or failure of a single means will not cause ground resonance.

(b) The probable range of variations, during service, of the damping action of the ground resonance prevention means must be established and must be investigated during the test required by § 29.241.

34. A new § 29.674 is added to read as follows:

§ 29.674 Interconnected controls.

Each primary flight control system must provide for safe flight and landing and operate independently after a malfunction, failure, or jam of any auxiliary interconnected control.

35. Section 29.727 is amended by revising paragraph (c) to read as follows:

§ 29.727 Reserve energy absorption drop test.

(c) The landing gear must withstand this test without collapsing. Collapse of the landing gear occurs when a member of the nose, tail, or main gear will not support the rotorcraft in the proper attitude or allows the rotorcraft structure, other than landing gear and external accessories, to impact the landing surface.

§ 29.755 [Amended]

36. Section 29.755 is amended by removing the designator "(a)" from paragraph (a) and by removing paragraph (b).

37. Section 29.783 is amended by revising paragraphs (b) and (c) to read as follows:

§ 29.783 Doors.

(b) Each external door must be located, and appropriate operating procedures must be established, to ensure that persons using the door will not be endangered by the rotors,

propellers, engine intakes, and exhausts when the operating procedures are used.

(c) There must be means for locking crew and external passenger doors and for preventing their opening in flight inadvertently or as a result of mechanical failure. It must be possible to open external doors from inside and outside the cabin with the rotorcraft on the ground even though persons may be crowded against the door on the inside of the rotorcraft. The means of opening must be simple and obvious and so arranged and marked that it can be readily located and operated.

38. Section 29.803 is amended by removing and reserving paragraph (c) and by adding new paragraphs (d) and (e) to read as follows:

§ 29.803 Emergency evacuation.

(d) Except as provided in paragraph (e) of this section, the following categories of rotorcraft must be tested in accordance with the requirements of appendix D of this part to demonstrate that the maximum seating capacity, including the crewmembers required by the operating rules, can be evacuated from the rotorcraft to the ground within 90 seconds:

- (1) Rotorcraft with a seating capacity of more than 44 passengers.
- (2) Rotorcraft with all of the following:
 - (i) Ten or more passengers per passenger exit as determined under § 29.807(b).
 - (ii) No main aisle, as described in § 29.815, for each row of passenger seats.
 - (iii) Access to each passenger exit for each passenger by virtue of design features of seats, such as folding or break-over seat backs or folding seats.

(e) A combination of analysis and tests may be used to show that the rotorcraft is capable of being evacuated within 90 seconds under the conditions specified in § 29.803(d) if the Administrator finds that the combination of analysis and tests will provide data, with respect to the emergency evacuation capability of the rotorcraft, equivalent to that which would be obtained by actual demonstration.

39. Section 29.805 is amended by adding a new paragraph (c) to read as follows:

§ 29.805 Flightcrew emergency exits.

(c) Each exit must not be obstructed by water or flotation devices after a ditching. This must be shown by test, demonstration, or analysis.

40. Section 29.807 is amended by revising paragraph (d) (introductory text); and by adding a new paragraph (d)(3) to read as follows:

§ 29.807 Passenger emergency exits.

(d) *Ditching emergency exits for passengers.* If certification with ditching provisions is requested, ditching emergency exits must be provided in accordance with the following requirements and must be proven by test, demonstration, or analysis unless the emergency exits required by paragraph (b) of this section already meet these requirements.

(3) Flotation devices, whether stowed or deployed, may not interfere with or obstruct the exits.

41. Section 29.809 is amended by revising paragraph (f) and by adding new paragraphs (g), (h), and (i) to read as follows:

§ 29.809 Emergency exit arrangement.

(f) Except as provided in paragraph (h) of this section, each land-based rotorcraft emergency exit must have an approved slide as stated in paragraph (g) of this section, or its equivalent, to assist occupants in descending to the ground from each floor level exit and an approved rope, or its equivalent, for all other exits, if the exit threshold is more than 6 feet above the ground—

- (1) With the rotorcraft on the ground and with the landing gear extended;
 - (2) With one or more legs or part of the landing gear collapsed, broken, or not extended; and
 - (3) With the rotorcraft resting on its side, if required by § 29.803(d).
- (g) The slide for each passenger emergency exit must be a self-supporting slide or equivalent, and must be designed to meet the following requirements:

- (1) It must be automatically deployed, and deployment must begin during the interval between the time the exit opening means is actuated from inside the rotorcraft and the time the exit is fully opened. However, each passenger emergency exit which is also a passenger entrance door or a service door must be provided with means to prevent deployment of the slide when the exit is opened from either the inside or the outside under nonemergency conditions for normal use.
- (2) It must be automatically erected within 10 seconds after deployment is begun.
- (3) It must be of such length after full deployment that the lower end is self-

supporting on the ground and provides safe evacuation of occupants to the ground after collapse of one or more legs or part of the landing gear.

(4) It must have the capability, in 25-knot winds directed from the most critical angle, to deploy and, with the assistance of only one person, to remain usable after full deployment to evacuate occupants safely to the ground.

(5) Each slide installation must be qualified by five consecutive deployment and inflation tests conducted (per exit) without failure, and at least three tests of each such five-test series must be conducted using a single representative sample of the device. The sample devices must be deployed and inflated by the system's primary means after being subjected to the inertia forces specified in § 29.561(b). If any part of the system fails or does not function properly during the required tests, the cause of the failure or malfunction must be corrected by positive means and after that, the full series of five consecutive deployment and inflation tests must be conducted without failure.

(h) For rotorcraft having 30 or fewer passenger seats and having an exit threshold more than 6 feet above the ground, a rope or other assist means may be used in place of the slide specified in paragraph (f) of this section, provided an evacuation demonstration is accomplished as prescribed in § 29.803(d) or (e).

(i) If a rope, with its attachment, is used for compliance with paragraph (f), (g), or (h) of this section, it must—

- (1) Withstand a 400-pound static load; and
- (2) Attach to the fuselage structure at or above the top of the emergency exit opening, or at another approved location if the stowed rope would reduce the pilot's view in flight.

42. Section 29.811 is amended by revising paragraph (f)(1) to read as follows:

§ 29.811 Emergency exit marking.

(f)
(1) There must be a 2-inch colored band outlining each passenger emergency exit, except small rotorcraft with a maximum weight of 12,500 pounds or less may have a 2-inch colored band outlining each exit release lever or device of passenger emergency exits which are normally used doors.

43. Section 29.855 is amended by revising paragraph (a) to read as follows:

§ 29.855 Cargo and baggage compartments.

(a) Each cargo and baggage compartment must be constructed of or lined with materials in accordance with the following:

(1) For accessible and inaccessible compartments not occupied by passengers or crew, the material must be at least fire resistant.

(2) Materials must meet the requirements in § 29.853(a)(1), (a)(2), and (a)(3) for cargo or baggage compartments in which—

(i) The presence of a compartment fire would be easily discovered by a crewmember while at the crewmember's station;

(ii) Each part of the compartment is easily accessible in flight;

(iii) The compartment has a volume of 200 cubic feet or less; and

(iv) Notwithstanding § 29.1439(a), protective breathing equipment is not required.

44. Section 29.861 is amended by revising paragraph (b) to read as follows:

§ 29.861 Fire protection of structure, controls, and other parts.

(b) For Category B rotorcraft, fireproof or protected so that they can perform their essential functions for at least 5 minutes under any foreseeable powerplant fire conditions.

45. Section 29.865 is amended by revising the introductory text of paragraph (a) and by adding a new paragraph (d) to read as follows:

§ 29.865 External load attaching means.

(a) It must be shown by analysis or test, or both, that the rotorcraft external load attaching means can withstand a limit static load equal to 2.5, or some lower factor approved under §§ 29.337 through 29.341, multiplied by the maximum external load for which authorization is requested. The load is applied in the vertical direction and in any direction making an angle of 30° with the vertical, except for those directions having a forward component. However, the 30° angle may be reduced to a lesser angle if—

(1) At least 25 percent must be over 50 years of age, with at least 40 percent of these being females.

(2) The remaining, 75 percent or less, must be 50 years of age or younger, with at least 30 percent of these being females.

(3) Three life-size dolls, not included as part of the total passenger load, must be carried by passengers to simulate live infants 2 years old or younger, except for a total passenger load of fewer than 44 but more than 19, one doll must be carried. A doll is not required for a 19 or fewer passenger load.

(4) Crewmembers, mechanics, and training personnel who maintain or operate the

(d) The fatigue evaluation of § 29.571(a) does not apply to this section except for a failure of the cargo attaching means that results in a hazard to the rotorcraft.

46. Section 29.1415 is amended by revising paragraph (b)(1) to read as follows:

§ 29.1415 Ditching equipment.

(b) * * *

(1) Provide not less than two rafts, of an approximately equal rated capacity and buoyancy to accommodate the occupants of the rotorcraft; and

47. A new Appendix D is added to part 29 to read as follows:

Appendix D—Criteria for Demonstration of Emergency Evacuation Procedures Under § 29.803

(a) The demonstration must be conducted either during the dark of the night or during daylight with the dark of night simulated. If the demonstration is conducted indoors during daylight hours, it must be conducted inside a darkened hangar having doors and windows covered. In addition, the doors and windows of the rotorcraft must be covered if the hangar illumination exceeds that of a moonless night. Illumination on the floor or ground may be used, but it must be kept low and shielded against shining into the rotorcraft's windows or doors.

(b) The rotorcraft must be in a normal attitude with landing gear extended.

(c) Safety equipment such as mats or inverted liferafts may be placed on the floor or ground to protect participants. No other equipment that is not part of the rotorcraft's emergency evacuation equipment may be used to aid the participants in reaching the ground.

(d) Except as provided in paragraph (a) of this appendix, only the rotorcraft's emergency lighting system may provide illumination.

(e) All emergency equipment required for the planned operation of the rotorcraft must be installed.

(f) Each external door and exit and each internal door or curtain must be in the takeoff configuration.

(g) Each crewmember must be seated in the normally assigned seat for takeoff and must remain in that seat until receiving the signal for commencement of the demonstration. For compliance with this section, each crewmember must be—

(1) A member of a regularly scheduled line crew; or

(2) A person having knowledge of the operation of exits and emergency equipment.

(h) A representative passenger load of persons in normal health must be used as follows:

(1) At least 25 percent must be over 50 years of age, with at least 40 percent of these being females.

(2) The remaining, 75 percent or less, must be 50 years of age or younger, with at least 30 percent of these being females.

(3) Three life-size dolls, not included as part of the total passenger load, must be carried by passengers to simulate live infants 2 years old or younger, except for a total passenger load of fewer than 44 but more than 19, one doll must be carried. A doll is not required for a 19 or fewer passenger load.

(4) Crewmembers, mechanics, and training personnel who maintain or operate the

rotorcraft in the normal course of their duties may not be used as passengers.

(i) No passenger may be assigned a specific seat except as the Administrator may require. Except as required by paragraph (1) of this appendix, no employee of the applicant may be seated next to an emergency exit, except as allowed by the Administrator.

(j) Seat belts and shoulder harnesses (as required) must be fastened.

(k) Before the start of the demonstration, approximately one-half of the total average amount of carry-on baggage, blankets, pillows, and other similar articles must be distributed at several locations in the aisles and emergency exit access ways to create minor obstructions.

(l) No prior indication may be given to any crewmember or passenger of the particular exits to be used in the demonstration.

(m) The applicant may not practice, rehearse, or describe the demonstration for the participants nor may any participant have taken part in this type of demonstration within the preceding 6 months.

(n) A pretakeoff passenger briefing may be given. The passengers may also be advised to follow directions of crewmembers, but not be instructed on the procedures to be followed in the demonstration.

(o) If safety equipment, as allowed by paragraph (c) of this appendix, is provided, either all passenger and cockpit windows must be blacked out or all emergency exits must have safety equipment to prevent disclosure of the available emergency exits.

(p) Not more than 50 percent of the emergency exits in the sides of the fuselage of a rotorcraft that meet all of the requirements applicable to the required emergency exits for that rotorcraft may be used for demonstration. Exits that are not to be used for the demonstration must have the exit handle deactivated or must be indicated by red lights, red tape, or other acceptable means placed outside the exits to indicate fire or other reasons why they are unusable. The exits to be used must be representative of all the emergency exits on the rotorcraft and must be designated by the applicant, subject to approval by the Administrator. If installed, at least one floor level exit (Type I; § 29.807(a)(1)) must be used as required by § 29.807(c).

(q) All evacuees must leave the rotorcraft by a means provided as part of the rotorcraft's equipment.

(r) Approved procedures must be fully utilized during the demonstration.

(s) The evacuation time period is completed when the last occupant has evacuated the rotorcraft and is on the ground.

PART 133—ROTORCRAFT EXTERNAL-LOAD OPERATIONS

48. The authority citation for part 133 continues to read as follows:

Authority: 49 U.S.C. 1348, 1354(a), 1421, and 1427; 49 U.S.C. 106(g) (Revised Pub. L. 97-449, January 12, 1983).

49. Section 133.43 is amended by removing the "or" at the end of paragraphs (a)(2) and (b)(1); by

removing the period at the end of paragraphs (a)(3) and (b)(2); by inserting "; or" at the end of paragraphs (a)(3) and (b)(2); and by adding new paragraphs (a)(4) and (b)(3) to read as follows:

§ 133.43 Structures and design.

(a) * * *

(4) Section 21.25 of this chapter.

(b) * * *

(3) Section 21.25 of this chapter, except the device must comply with §§ 27.865(b) and 29.865(b), as applicable, of this chapter.

Issued in Washington, DC, on February 12, 1990.

James B. Busey,
Administrator.

[FR Doc. 90-4970 Filed 3-5-90; 9:45 am]

BILLING CODE 4910-13-M

(2) The carrier may make the CRO available via telephone, at no cost to the passenger, if the CRO is not present in person at the airport at the time of the complaint. If a telephone link to the CRO is used, TDD service shall be available so that persons with hearing impairments may readily communicate with the CRO.

(3) Each CRO shall be thoroughly familiar with the requirements of this part and the carrier's procedures with respect to handicapped passengers.

(4) Each CRO shall have the authority to make dispositive resolution of complaints on behalf of the carrier.

(5) When a complaint is made to a CRO, the CRO shall promptly take dispositive action as follows:

(i) If the complaint is made to a CRO before the action or proposed action of carrier personnel has resulted in a violation of a provision of this part, the CRO shall take or direct other carrier personnel to take action, as necessary, to ensure compliance with this part. *Provided*, That the CRO is not required to be given authority to countermand a decision of the pilot-in-command of an aircraft based on safety.

(ii) If an alleged violation of a provision of this part has already occurred, and the CRO agrees that a violation has occurred, the CRO shall provide to the complainant a written statement setting forth a summary of the facts and what steps, if any, the carrier proposes to take in response to the violation.

(iii) If the CRO determines that the carrier's action does not violate a provision of this part, the CRO shall provide to the complainant a written statement including a summary of the facts and the reasons, under this part, for the determination.

(iv) The statements required to be provided in paragraph (a)(5) of this section shall inform the complainant of his or her right to pursue DOT enforcement action under this section. This statement shall be provided in person to the complainant at the airport if possible; otherwise, it shall be forwarded to the complainant within 10 calendar days of the complaint.

(b) Each carrier shall establish a procedure for resolving written complaints alleging violation of the provisions of this part.

(1) A carrier is not required to respond to a complaint postmarked more than 45 days after the date of the alleged violation.

(2) A written complaint shall state whether the complainant has contacted a CRO in the matter, the name of the CRO and the date of the contact, if

available, and include any written response received from the CRO.

(3) The carrier shall make a dispositive written response to a written complaint alleging a violation of a provision of this part within 30 days of its receipt.

(i) If the carrier agrees that a violation has occurred, the carrier shall provide to the complainant a written statement setting forth a summary of the facts and what steps, if any, the carrier proposes to take in response to the violation.

(ii) If the carrier denies that a violation has occurred, the response shall include a summary of the facts and the carrier's reasons, under this part, for the determination.

(iii) The statements required to be provided in paragraph (b)(3) of this section shall inform the complainant of his or her right to pursue DOT enforcement action under this section.

(c) Any person believing that a carrier has violated any provision of this part may contact the following office for assistance: Department of Transportation, Office of Consumer Affairs, 400 7th Street, SW., Washington, DC 20590, (202) 366-2220.

(d) Any person believing that a carrier has violated any provision of this part may file a formal complaint under the applicable procedures of 14 CFR part 302.

[FR Doc. 90-4998 Filed 3-2-90; 8:45 am]

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Federal Aviation Administration

14 CFR Parts 121 and 135

[Docket No. 25821; Amdt. No. 121-214 and 135-36]

RIN 2120-AC75

Exit Row Seating

AGENCY: Federal Aviation Administration (FAA). DOT.

ACTION: Final rule.

SUMMARY: This final rule regulates exit row seating in aircraft operated by U.S. air carrier and commercial operators (certificate holders), except on-demand air taxis with nine or fewer passenger seats. It requires 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 may be seated in exit rows. This action is intended to further safety for all passengers.

DATES: Effective Date: April 5, 1990.

Compliance Date: October 5, 1990.

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:

Availability of Final Rule

Any person may obtain a copy of this final rule 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. Communications must identify the docket number of this final rule.

Persons interested in being placed on the mailing list for future notices of proposed rulemaking (NPRM's) and final rules should request from the above office a copy of Advisory Circular No. 11-2A, Notice of Proposed Rulemaking Distribution System, which describes the application procedure.

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 Federal Aviation Administration (FAA) will make available for copying a number of audio cassette tapes of the entire amendment (and the accompanying 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.

Background

Introduction

This rule prescribes requirements relating to the seating of airline passengers near emergency exits. The FAA has determined that a rule is necessary to establish clearly understood, consistent, and predictable practices regarding the seating of passengers in so-called "exit rows," and to prevent instances of arbitrary, unexpected, or unwarranted treatment by airline employees.

The issues addressed by the rule are among the most difficult and controversial ever addressed by the FAA, for they require, in the interest of what is essential for the safety of all

Amdt. 121-214

passengers, that some passengers be treated differently from other passengers, depending on their physical abilities.

The FAA must be satisfied that any differences in prescribed treatment are fully justified by the incremental gains in safety achieved thereby. The criteria set forth in the present rule have been weighed against this standard with the greatest care. The FAA is persuaded that, in this case, the standard has been met.

Mishaps in commercial aviation are extremely infrequent, but when they occur, survivability is a function of a great many regulatory decisions relating to the design and construction of the aircraft and its interior and to the procedures invoked by airline employees. Some of those decisions, in isolation, may seem small or "on the margin," but all are necessary elements to the total safety equation.

A critical prerequisite to survivability in many such circumstances is the fastest possible evacuation of the aircraft. Essential to the objective is the fastest possible safe opening of emergency exit doors, followed by the fastest possible movement of passengers through those exits and toward safety.

The FAA has determined, in light of the importance of maximizing the likelihood of a successful evacuation in the event of a mishap, and because of the pivotal role played by those passengers seated in closest proximity to airplane exits, that it is necessary to issue a rule, based on verifiable qualifications, establishing passenger eligibility to sit in an exit row.

Summary of the 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 are intended to prevent a crash from ever happening. A crashworthiness rule assumes that a survivable crash has happened and then specifies certain actions to maximize people's chances of getting out alive.

This rule on exit row seating provides 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 or conduct 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, written and oral, for its use.* Door operations and instructions differ from aircraft to aircraft. 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, in order not to cause a traffic jam at the door, and perhaps to 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 rule says simply that airlines shall seat in exit rows only persons who appear able to perform these and other relevant functions in an emergency evacuation. Persons who do not appear able to perform all the functions may sit in any other seat. Airlines also must take steps to inform passengers sitting in exit rows about what may be required of them in an emergency evacuation. By following these requirements, airlines will minimize the likelihood of passenger-caused evacuation delays that could cost lives.

In addition to the critical nature of the tasks just cited for opening the exit doors quickly, it is equally important that queues form readily and that evacuation proceeds as rapidly as possible. Therefore, in drafting this rule, the FAA had to consider not only the requirements for quickly opening the exit door (when and where appropriate) but also the requirements for initiating the orderly progression of the evacuees to safety, beginning at the exit rows.

As discussed further herein, this rule has been promulgated with full consideration of the Air Carrier Access Act of 1986 (ACAA), which prohibits discrimination in air transportation on the basis of handicap, but also requires that measures to eliminate such discrimination take into account the safety of all passengers.

During a regulatory negotiation to implement the ACAA, the participating groups representing persons with disabilities, the industry groups, and the Government were unable to reach agreement on the exit row seating issue. Accordingly, the Office of the Secretary of Transportation (OST), in an NFRM to implement the ACAA, formulated its own proposal on exit row seating (53 FR 23574; June 22, 1988). It took cognizance of the safety implications of exit row seating by proposing 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 rule addresses the safety aspects of exit row seating and will 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 are too large or too small, persons with some disabilities, and elderly persons who are physically frail will be seated in a location other than an exit row. This rule does not affect exit row seating in the on-demand operations of air taxis that have nine or fewer passenger seats. The purpose of a charter flight very well may be to carry a person whose disabilities make other commercial flights unavailable.

Summary of Comments

Notice of proposed rulemaking No. 89-8 was published in the *Federal Register* on March 13, 1989 (54 FR 10484). The comment period closed June 12, 1989. The FAA, in accordance with its standard policy, continued to accept comments and to consider them so far as possible without incurring expense or delay. Approximately 650 respondents registered their comments in the public docket on the proposed regulation as of July 28, 1989. Of that number, approximately 550 opposed the NPRM, while 90 supported it.

Individuals provided over 600 of the comments, while 40 came from various public or private associations and organizations. The largest number of individual comments came from blind persons or friends, associates, and relatives of blind persons. Individual comments also came from other persons with disabilities, passengers who have no disabilities, students, and flight attendants, pilots, and other persons connected currently or in the past with the aviation industry.

Representatives of organizations of persons with disabilities also commented. Again, the largest number came from groups with blind membership: the National Federation of

the Blind (NFB), the New Mexico Commission for the Blind, the Golden Triangle Council of the Blind, the American Foundation for the Blind, the American Council for the Blind, and various state or local affiliates of the NFB in Indiana, Alaska, Pennsylvania, Florida, Maine, New York City, Colorado, Kansas, Wisconsin, Maryland, Nebraska, South Carolina, Oregon, Georgia, and Connecticut, as well as from the NFB Federation Center for the Blind.

In addition, the national office of the NFB filed 2 volumes of materials and a 13-page unsigned document identified on the first page only as being from the "National Federation of the Blind." After the comment period closed, the NFB wrote to the Secretary of Transportation (the Secretary), concerning the exit row seating issues, reiterating the NFB's position and disagreeing with an internal, deliberative FAA memorandum which had come into the NFB's possession. This letter and the agency reply also were submitted to the docket. The FAA received over 200 form letters of several types, many without return addresses and/or legible signatures. We believe these also came from NFB members, since the comments made repeated those made by the national office, its chapters, and identifiable members. The FAA acknowledges these, but it has not included them in the count of commenters who wrote their own letters.

Commenters representing groups of persons with a variety of disabilities included: the National Association of the Physically Handicapped, the Society for the Advancement of Travel for the Handicapped, the State of Washington Governor's Committee on Disability Issues and Employment, the Paralyzed Veterans of America, the Disability Advocacy Organization, and the Southwest Center for Independent Living. The Architectural and Transportation Barriers Compliance Board (ATBCB), a Federal organization devoted to monitoring the implementation of the Architectural Barriers Act and related statutes and regulations, also commented.

In general terms, most of the blind individuals and their organizations oppose the NPRM, as do most of the organizations representing persons with other disabilities. Supporters of the NPRM, however, include some individuals and organizations who are blind or who have other disabilities. Also, while the NFB and its members oppose the entire NPRM and any seating restrictions, the other organizations are more selective in their comments,

opposing portions of the NPRM and offering alternatives.

The following organizations, representing facets of the aviation industry, commented: the Association of Professional Flight Attendants, the Retired Airline Pilots Association, the Association of Flight Attendants (AFA), the Air Transport Association of America (ATA), the National Transport Safety Association, Inc., Airport Safety Services, International, the Interaction Research Corporation, and the Regional Airlines Association (RAA). The National Transportation Safety Board (NTSB), an independent safety agency of the Federal government, also commented.

Those connected with the aviation industry are unanimous in their support of the NPRM. The ATA and the RAA, however, provided detailed comments on changes their members wanted to see reflected in a final rule.

The FAA also considered the comments and questions of Members of Congress who wrote to the Secretary, to the Administrator, or to the docket regarding the NPRM or related matters; a variety of published interviews or articles on the exit row seating issue; studies; accident records; the record of a hearing before the Subcommittee on Aviation, Committee on Commerce, Science, and Transportation, United States Senate, on March 14, 1989; relevant news articles and videotapes, and information made available to the FAA regarding an evacuation test held by World Airways at the request of the NFB. The relevant materials were placed in the docket.

Since most of the comments came from the National Federation of the Blind (NFB), its affiliates, and members, the NFB's issues will be presented first, along with the positions of other commenters on these issues.

Discussion of the Issues

The NFB focused on seven specific issues in its formal comments within the two volumes it filed. The NFB's affiliates and individual members tended to comment on several of the seven issues, but not on all of them. The seven issues, however, really made three major points, so they are grouped together, as indicated below, to reflect this.

Whether the FAA Has a Genuine Evidentiary Basis for the Exit Row Seating Rule

This issue combines points 1, 2, and 7 of the NFB's formal comments that question whether the FAA has substantial evidence, flight safety evidence, or other evidence that there is a safety necessity for the NPRM.

Basically, the NFB criticizes the evacuation study conducted by the Civil Aeromedical Institute (CAMI) of the FAA. Chiefly, the NFB criticizes the FAA for measuring blind persons only for their rate of movement from a given seat to the exit door or window; for not testing blind persons' capacity to perform other functions related to an emergency evacuation; for not limiting the test group to blind persons who are frequent fliers; and for using simulated blind persons in testing emergency evacuation through an over-the-wing exit. The NFB also alleges that the FAA's failure to issue a rule after completion of the CAMI study in 1973 shows that the study does not warrant such action.

The NFB also criticizes FAA's reliance on accident reports and other studies, stating that none of them show that blind persons ever caused an accident or slowed an evacuation. It alleges that in 1968 and 1976, blind persons actually were instrumental in the evacuation of passengers during aircraft emergencies. The NFB also alleges that an experiment the NFB conducted with World Airways in 1985 proves that exit row seating restrictions should not apply to blind persons. The NFB says that blind persons are capable of performing the functions that may be the responsibility of those persons sitting in emergency exit rows.

The Society for the Advancement of Travel for the Handicapped, whose former spokesperson also is blind, concurs in large measure with the NFB. The Paralyzed Veterans of America (PVA) comments adversely on the studies, stating that the FAA has not performed statistically valid tests on passengers with a variety of impairments, including old age, obesity, pregnancy, sobriety, and those related to various types of disabilities.

The criticism of the American Council for the Blind (ACB), another major organization with blind membership, is based chiefly on the limited number of functions tested by CAMI, but the ACB agrees with the FAA that it might not be feasible to test all the functions, especially those that could result in injury. It suggests additional testing and careful study of the World Airways experiment.

The aviation industry, conversely, supports the NPRM, the CAMI study, and the other data on which the FAA based its proposal. The RAA finds the CAMI data "compelling." The ATA states: "The studies cited in the NPRM are persuasive, empirical evidence that what common sense tells us is true: to allow persons with known physical

deficits to sit in exit rows will impede the process." All the other aviation groups and organizations support the FAA findings directly or indirectly by focusing on the need for speed in initiating the emergency evacuation, the dangers of any delay in the beginning phases of an evacuation, and the wisdom of placing persons in exit rows who are not limited by a physical or mental disability.

In regard to additional testing of functions that might have to be performed during an emergency evacuation, none of the disability groups commented on the fact that the FAA invited representatives of disability groups to accompany FAA staff to a certificate holder's flight attendants' training facility to enable them to demonstrate the proficiency of persons with disabilities in finding mechanisms, opening doors, removing over-the-wing exits, responding to flight crew instructions, and other evacuation functions. None of the disability groups accepted this invitation. Representatives from the ATBCB and the Association of Flight Attendants, however, did participate.

The information available from this training program is instructive. In the training devices of this certificate holder alone, there are at least 11 types of doors or emergency exits, each of which requires varying degrees of strength and agility to open and each of which operates somewhat differently from the others. During the notice period, several FAA representatives visited another major certificate holder's training facility where similar observations were made. 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.

Findings of CAMI Study

The CAMI study, conducted in 1973, was designed 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, by Amendment 121-133 (42 FR 18392; April 7, 1977) the FAA 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 was entered in the Regulatory Docket).

This report was prepared for possible publication in scientific journals and, therefore, includes certain observations and tests conducted by the researchers that are 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 in exit rows. 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:

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.

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.

These findings are relevant because, if these delays occur at the beginning of an exit queue during an emergency, the effect will be felt throughout the entire evacuation flow, as traffic backs up.

Rapid aircraft 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 evacuation delays in every possible way. In the CAMI study, the researchers concluded that aircraft passenger seating location could be used to minimize the delays.

In the CAMI study, 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 totally blind. In addition, another person was classified as legally blind, and eight other persons 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 rule 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 (for persons with non-sensory handicaps) 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. The implication of this finding is that evacuation times would be longer if the person were seated very near the exit, as in an exit row. 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 (i.e., nearer the exit), 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 in this rule, 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 was 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 requested commenters to provide copies of any study that supports that thesis, but none was submitted to the docket. The CAMI study does not point to that conclusion.

Videotapes of the experiments, copies of which have been placed in the docket, show the effect of various disabilities on movement from the passenger seats to the emergency exit 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 an emergency exit door.

The videotapes also show that some passengers with a fairly good rate of movement down an airplane passenger compartment aisle would have trouble, nevertheless, opening the emergency exit 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 emergency exit door or emergency overwing exit mechanisms.

The tests revealed that evacuation of the control group (persons with no handicaps) consistently was faster than that of groups with handicaps of all types. Further, the evacuation time increased 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 manipulating emergency exit opening mechanisms, would impose additional burdens on persons with handicaps and cause delays.

Given the results of the tests, the researchers concluded that ambulatory handicapped passengers 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.

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 its nature is likely to be 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 this rule promotes the expeditious evacuation of the greatest number of passengers.

The FAA reviewed scenes from a videotape, made at the time of the 1973 CAMI study, which shows 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. This tape is also 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 lives.

The accidents involved a United Airlines DC-8, which crashed during a landing at Stapleton Field, Denver; a United Airlines Boeing 727, which crash-landed 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 was 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 was 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 in the data bank. 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 physical disabilities, the aged, children, the obese, and others having characteristics

which could affect the evacuation process.

While the memorandum includes 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.

As a result of the studies and the other available data and information referred to herein, 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.

The World Airways experiment, which was videotaped, has achieved considerable importance in light of the NFB's contention that it proves that exit row seating restrictions should not be applied to blind people. Since the NFB has not made the unedited videotape available either to the FAA or to World Airways, the FAA has relied on several eyewitnesses to the event. The eyewitnesses include two flight attendants and the managing editor of *Ninnescah*, a magazine that is published by an organization devoted to improving air travel for persons with disabilities. The flight attendants provided signed declarations, and the managing editor provided a copy of the issue in which he reported on the experiment. The FAA also studied the Report of a Senate Subcommittee on Aviation hearing held on exit row seating in Washington, DC, on March 14, 1989. At the hearing, the NFB leader, Dr. Kenneth Jernigan, discussed certain aspects of the experiment. These materials were entered in the docket.

After studying these materials, the FAA cannot agree, for the following reasons, that the World Airways exercise constituted a scientific experiment or valid study for the support of the NFB's position:

(1) There was no testing protocol;
 (2) There appears to have been no pre-arrangement regarding the matter of neutral observers or instructions on what and where to observe;

(3) No formal report was issued;

(4) The only published report was written as a magazine article from memory or informal notes 2 years after the exercise;

(5) There was confusion as to the purpose of the NFB visit to the World Airways airplane; and

(6) practice sessions were used by the NFB to open the exit.

Other information which refutes the NFB's contention that the World Airways experiment proves that blind persons can perform the functions that may be the responsibility of persons seated in emergency exit rows include problems reported by the flight attendants who participated. These included the inability of the group to form a double line; hesitancy to jump without being pushed out; insistence by a woman with a guide dog that she be allowed to sit down, holding the dog, instead of jumping without it; inability to leave the slide rapidly at the bottom; and failure to catch some passengers when blind persons assisted at the bottom of the slide. One flight attendant reported that she was in danger of being shoved out of the exit due to her need to move forward to push some of the evacuees in order to make them jump.

The managing editor and the flight attendants reported in depth on a second evacuation, with the blind persons holding their canes, that had to be aborted due to the danger posed by the canes to flight attendants, other passengers, and the assistants at the bottom of the slide.

In addition, practice sessions were used by the NFB prior to opening the door. One flight attendant reported on the difficulty of briefing blind persons and of translating such terms as "red" and "white" tabs and "short" and "long" handles for persons without sight. In her briefing, she specifically pointed out that there were certain things they would not be able to do without the aid of a sighted person.

Finally, the exit row seating proposal contemplates aircraft evacuation performance by passengers, with or without the help of a flight attendant. In the World Airways experiment, flight attendants and other World Airways aircraft evacuation employees were involved in all of the evacuation processes.

In sum, the World Airways experiment had none of the scientific planning, controls, measurement, or analysis of the CAMI study on which the FAA relies. In the World Airways experiment, it appears that only one person actually opened an emergency exit door, and then only after repeated

practice. Only a limited group assisted at the bottom of the emergency exit slide, and no one opened an over-the-wing exit.

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.

Some commenters suggest 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.

Following are additional NFB comments:

Whether the FAA's Exit Row Seating Proposal Discriminates Against Persons With Disabilities, Especially the Blind

The NFB's 3rd, 4th, 5th, and 6th points are interrelated in that all deal in some manner with discrimination. Succinctly stated, the NFB contends that exit row seating restrictions for blind persons: (a) are contrary to the Air Carrier Access Act of 1986; (b) promote unlawful discrimination against the blind; and (c) result in a disproportionate restrictive impact on blind persons as compared with sighted persons.

Many of the individual blind commenters and the affiliates of the NFB appear to be under the impression that the NPRM singled out blind persons in regard to exit row seating restrictions. This same theme appeared in the official NFB comment and is difficult to understand, given the scope of the NPRM and the many other persons and types of disabilities covered. All organizations representing blind persons were notified that the NPRM and its related documents were available on audio cassettes for taping. It may be that some of these commenters were not made aware of that fact.

In varying degrees, the other disability groups concur that the proposal is discriminatory. They base this view largely on the fact that unseen disabilities will allow persons to sit in exit rows, while identifiable ones will not. The NFB also feels that blindness is not a disability and that it is discriminatory for the FAA to include blind persons in the category of "disabled." If this position were to be accepted, however, blind persons would be denied the protection of laws, such as

the ACAA, that prohibit discrimination against persons with disabilities.

The aviation community and other groups and individuals supporting the NPRM strongly disagree that exit row seating restrictions are discriminatory. One group of 12 individual signatories writes:

Some of us would probably be denied seats in an exit row under the proposed rule, due to age and/or questionable strength to handle an over-the-wing emergency door. We do not consider such denial 'discrimination.' On the contrary, in an emergency we would welcome being relieved of the responsibility for the prompt and safe evacuation of our fellow passengers. We plan when making future reservations by phone, mail, or through a travel-agent, to indicate that we do not want to be seated in an exit row.

The ATA's comment makes it clear that the ATA considers exit row seating a safety issue. It enclosed editorials from the New York Times and Aviation Week and Space Technology, both of which disagree that discrimination is involved.

The comments concerning discrimination were analyzed by the FAA in light of the ACAA and the Rehabilitation Act, both of which prohibit discrimination on the basis of handicap, and in light of relevant case law. The Air Carrier Access Act of 1986 (Pub. L. 99-435, October 2, 1986) prohibits discrimination in air transportation on the basis of handicap. The ACAA 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 ACAA, 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 (OST) had the responsibility of proposing 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 rule is an FAA safety rule within the terms of the ACAA NPRM. This final rule, amending 14 CFR Parts 121 and 135, places 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).

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. 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 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, suggested that FAA's intent had not been realized fully. Some carriers had not established seating policies fully consistent with the advisory circular. Carrier policies appeared to be inconsistent with one another in a number of cases.

Further, information available to the advisory committee showed that certificate holder personnel, in excluding persons from exit row 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, led to increased pressure from persons with disabilities to remove restrictions on seating handicapped persons in exit rows. Under these circumstances, the FAA determined that it was necessary to consider regulatory requirements concerning exit row seating.

The need to review and reconsider the FAA position was heightened by the provision of the ACAA 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 promulgated a safety regulation on exit row seating, the proposed provision of the rule implementing the ACAA 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 determined to reexamine the issue of exit row seating from the standpoint of both discrimination and safety.

Whether the FAA Exit Row Seating Rule Will Compromise Air Safety

The NFB believes: (1) That it would be safer to populate exit rows with blind persons than with persons who imbibe alcoholic beverages, and (2) that blind persons perform better in the dark than sighted persons and thus could be more effective than others during an emergency evacuation.

The blind community is joined by the ATCB in identifying the service of alcohol in exit rows as a problem. The comments, generally, discuss alcoholism as an abstract problem, rather than accounts of actual experiences with inebriated passengers. The NFB's submissions do include an article published in the "Braille Monitor," on this topic. The article includes, among other things, statistics on the amount of liquor sold on air carriers; comments by a spokesperson for AFA on drinking as a problem on air carriers; and the results of blood alcohol level tests of passengers after an emergency landing by an Air Canada DC-9 in 1983. The ATA comments that its members believe that sufficient protection would be provided by current § 121.575 of the FAR, which prohibits boarding inebriated persons or serving alcohol to those who become inebriated while on

board, and by the proposed exit row seating rule. In addition, this exit row seating rule applies to *all* persons who appear incapable, for whatever reason, of performing the functions necessary during an emergency evacuation. If a crewmember has reason to suspect that a person is inebriated, even if he or she is not showing easily discernible signs of such inebriation, the crewmember will have the authority to refuse to seat the person in an exit row or to move that passenger to another seat. In view of these authorities, the FAA does not believe that further restrictions are necessary at this time. The FAA will consider carefully, however, any evidence brought to its attention regarding this issue in the future and take such action as may be necessary.

The NFB's argument regarding the performance of blind persons in a smoke-filled or otherwise totally-dark cabin may have some merit. It appears to be based on the assumption, however, that darkness is the rule rather than the exception.

Most of the aviation organizations that commented focus on the need to see external fires as one of the important functions that must be performed. Such fires provide light, as do daylight, floor lights, door lights, and airport lights. Even in smoke-filled cabins, it often is the case that a glimpse of light finally leads people to safety. The NFB cites two instances in which blind persons ostensibly led others to safety in emergency evacuations. The FAA has insufficient information on the conditions of the evacuations, the locations of these two individuals on board the aircraft, the extent of their disabilities, etc., in order to form a judgment. Even conceding that these two individuals performed heroically, however, the FAA believes that two actions cannot outweigh the clear advantage of sight in most evacuations.

This was illustrated dramatically during the NBC "Today Show," July 20, 1989, when two survivors of the recent crash of United Air Lines Flight 232 were interviewed. When the DC-10 crashed, en route from Denver to Chicago, it burst into flames, and smoke filled the cabin. Eventually a glimpse of light enabled one of the interviewed passengers to make his way out of the aircraft.

The same passenger, by spotting an external fire, decided not to open an exit that would have admitted the smoke and/or flames into that part of the cabin. A second passenger was responsible for leading to safety two other passengers, including a woman who had arrived in a wheelchair but had

some mobility. A videotape of these interviews was entered in the docket, along with other comments and documents that were late, but which the FAA was able to take into consideration.

It is the view of the FAA, therefore, that this rule does not compromise safety as alleged by the NFB but carries out the concern of Congress that safety not be sacrificed in the course of implementing the ACAA.

While the ACAA protects the civil rights of handicapped persons, it also by its terms mandates continued concern for safety. The legislative history amplifies the safety theme: 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 allow carriers to establish their own procedures for persons who may need assistance in an emergency evacuation (§ 121.586 of the FAR), but they do not cover specifically the role of exit row seating in air safety. Consequently, the FAA found it necessary to address the issue directly. In drafting this final rule to regulate exit row seating, the FAA 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 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. This rule is wholly consistent with the ACAA.

It is clear that the principles enunciated by the courts with respect to discrimination under Section 504 of the Rehabilitation Act apply to the ACAA. The legislative history shows that Congress passed the ACAA 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 between the Rehabilitation Act and the ACAA, logic requires that the standards set by the Supreme Court in *Southeastern Community College v. Davis*, 442 U.S. 397 (1979) and in *Alexander v. Choate*, 469 U.S. 287, 105 S. Ct. 712 (1985), regarding "reasonable accommodation" and "meaningful access" under Section 504 of the Rehabilitation Act, apply to the ACAA as well. The exit row seating restriction established by this rule is narrowly defined and does not constitute a barrier to meaningful access to air carrier transportation.

In addition, the rule is in accord with other 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*, 3 at 405; *American Public Transit v. Lewis*, 665 F.2d 1272 (D.C. Cir. 1981). In *Alexander*, 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 program or benefit may have to be made." (Emphasis supplied.) *Alexander*, at 301.

These principles and section 3 of the ACAA require carriers to ensure meaningful access to air transportation and the FAA to consider the potential safety impact of seating policies that are necessary for 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 because such a policy would be overbroad or unreasonable; 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 rule does not bar any person from a seat unless that seating location adversely affects his or her safety or that of other passengers. It is the intent of the rule that a person with a disability not be denied transportation as a result of the safety restrictions established by the rule. There is a remote possibility, however, that such a denial could occur. Denial of transportation conceivably could occur when the aircraft configuration is such that, due to the nature of the person's handicap, the only seat which can physically accommodate the person is one that is covered by the rule. Such a situation is most apt to involve a small aircraft having only one exit. In such circumstances, there is often no flight attendant, and the need for a passenger to perform the emergency functions set forth in the rule is vital.

The FAA also received many technical comments from both the disability and the aviation groups. Some issues were raised only by one type of group, without comment by the other, depending on the vantage point or orientation of the commenter. The disability and the aviation issues are presented below.

Whether a Solution Can Be Found by Removing All the Seats in Exit Rows

Many persons who opposed the NPRM would not oppose removal of the exit row seats to enhance safety. These commenters do not specify what should be done about the other rows nearest the exits. There would remain the question as to whether seating

restrictions should be applied to those rows, if the exit row seats were removed. If nearby rows were not restricted, it is conceivable that their occupants would not be the persons with the greatest potential for assuming successfully the emergency evacuation duties.

Whether a Solution Can Be Found By Leaving All Exit Row Seats Vacant

A number of persons who oppose the NPRM would not be opposed to leaving all exit row seats vacant. There still would remain the question as to whether seating restrictions should be applied to other rows. The aviation industry did not raise or comment on this issue.

Whether the FAA Should Concentrate on Studying Seat Configurations, Aisle Widths, the Number of Seats, Door Mechanisms, and Other Factors That Affect Evacuations, Rather Than the Abilities of Persons With Disabilities to Lead an Evacuation

The ATBCB and several disability groups recommend that the FAA find other ways to ensure rapid emergency evacuations, such as improving seating configurations and other factors, instead of focusing on restricting persons with disabilities. One commenter recommends strongly that the FAA require seats to be reversed to face the aft section of the aircraft, claiming that this configuration has been proved safer. A recent article in "FAA World," by a president emeritus of the Flight Safety Foundation, addresses this point, indicating that it is questionable that backward seating enhances safety sufficiently to offset other dangers and discomforts which would arise. A copy of this article was entered in the docket.

The AFA, on the other hand, credits the FAA with its overall concern for passenger survivability, stating: "[W]e believe that the FAA's proposal to regulate exit row seating is non-discriminatory, as well as long overdue. It is nondiscriminatory because the agency is not singling out one aspect of cabin safety to raise to a high standard, while leaving the rest at some modest level." The AFA mentions specifically the following recent or current FAA rulemaking projects: requirements for seat fire-blocking layers; new flammability rules for the entire cabin interior; new seat strength standards for new aircraft types; floor-level lighting; automatic fire extinguishers in lavatories; new carry-on baggage rules; new requirements for cargo liners; the placement of better seats on existing aircraft; fire extinguishers in cargo compartments that currently lack them;

and a maximum distance restriction between exits. As the AFA has indicated, the FAA is addressing a wide spectrum of cabin safety problems, and it will continue to do so. The FAA believes, however, that exit row seating constitutes one of these problems and warrants attention at this time.

Whether Passenger Information Cards Should Be Made Available in Braille, on Tape, or in Large Print

The ACB and some blind individuals recommend the provision of passenger information cards in Braille and in large print, regardless of whether blind passengers sit in exit rows, in order to facilitate their emergency evacuation. This suggested action also is outside the scope of the NPRM. It is the understanding of the FAA, however, that some air carriers already are carrying a limited number of Braille cards to make available to blind passengers. Further, a conference held by the FAA on aircraft occupant safety in November 1988 resulted in a recommendation for improved communication of safety information to blind or otherwise handicapped passengers. Although action on this would be outside the scope of the NPRM on exit row seating, the FAA intends to support improved communication and the availability of a certain number of Braille cards through an advisory circular.

Whether Written Procedures for Making Determinations Regarding Exit Row Seating Should Be Available in Braille, Large Print, and on Cassettes at All Loading Gates and Ticket Counters, Along With Information on How Aggrieved Passengers May Appeal to the FAA

The ACB proposes the above. The ATA, conversely, objects to any requirement to maintain written copies of procedures at all passenger loading gates and ticket counters, stating that the cost of complying with this requirement would far outweigh the potential benefit. As an alternative, the ATA suggests that written copies of any sort should be maintained at a central location. The RAA also proposes that copies should be maintained at a central location, namely, where the contract of carriage is kept. Neither the ATA nor the RAA addresses the issue of procedures in Braille, large print, or on cassettes.

At the regulatory negotiations relating to the ACAA, representatives from disability groups voiced their strong concern and frustration regarding the general unavailability of the procedures and information affecting air

transportation for persons with disabilities. The FAA believes their comments and similar ones received in response to the NPRM have merit.

The FAA recognizes that, in general, it is satisfactory and certainly more economical to maintain the various procedures and other documents relevant to an air carrier's operations in a central location. The FAA believes, however, that the rule lends itself to relatively simple procedures which can be reproduced at minimum cost and made available to interested persons at the gates and counters.

Whether the Procedures Will Require Testing or Quizzing and Medical Expertise on the Part of Air Carrier Personnel or Crew

Both the ATA and the RAA comment that the NPRM seems to call for quizzing or testing passengers as to their capacity to perform the emergency evacuation procedures. They state that this would require medical expertise on the part of the air carrier personnel or crew, since they would have to evaluate the responses of the passengers. The ATA and the RAA also state that quizzing or testing would be demeaning and embarrassing to the passengers. The view of the ATA and the RAA is that air carriers should be required only to make reasonable decisions based upon observation.

The FAA agrees that quizzing or testing passengers as to the state of their mental or physical disabilities and their capacity to perform the evacuation functions would impose an undue burden on the air carriers. In drafting the NPRM, the FAA did not envisage such procedures. It is clear that even a full-scale physical and mental examination would not be foolproof. A person in excellent health could faint with fright during an emergency. Athletes with no record of illness have been known to suffer heart attacks. Strokes can occur with little or no warning.

This rule cannot guarantee that exit row passengers will be able to perform the necessary functions. It only can maximize the chances for selecting persons most able to begin and lead an emergency evacuation. Further, it must do so in a practical way—a way that can be implemented in the midst of a busy airport, with a multitude of passengers waiting in line or boarding, and with schedules to meet.

The FAA also concurs with the ATA and the RAA that most quizzing and testing would embarrass passengers. The FAA believes, however, that there may be a few situations where some

minimal questioning would be appropriate. If there is doubt regarding a person's capacity to hear, speak, or understand the English language, flightcrew or other personnel could ask a simple question. This would not involve a medical determination. Questions of this nature simply would ascertain a fact. They should prove no more embarrassing than queries as to whether a certain piece of luggage will fit beneath the seat or whether a person's seat belt is fastened.

The FAA does not anticipate, therefore, that a carrier's procedures for selecting exit row occupants will include detailed standards regarding the physical or mental abilities of passengers. It is the FAA's view that the rule is sufficiently explicit regarding the criteria for selection and the functions to be performed to allow the air carriers to make determinations based upon reasonable observation.

The procedures must contain, in addition to the selection criteria and the functions to be performed, as set forth in the rule, information on when and by whom the determinations will be made; identification of the office or person to whom to complain in the event of a disagreement; how moves to other seats will be handled; and other similar aspects of the process.

The FAA intends to provide detailed guidance on these aspects of a carrier's procedures, but it assumes that determinations will be made largely on the basis of observation and perhaps on some simple questions as discussed above.

Whether Passengers Who Are Seated by Mistake in Exit Rows Should Be Moved

The ACB raises the issue of reseating, but its comments are not entirely clear. It states initially that § 121.585(k) of the FAR "should be clarified to make it crystal clear that determinations once made by a carrier employee to assign a passenger to an exit row seat will not be changed, if the passenger prefers to keep that seat."

The ACB also states, however, that "If this rule is adopted and if a blind person is assigned to such a seat by mistake, the carriers must be forced to correct the mistake in the most discreet, courteous, and sensitive manner."

The ACB also states: "We believe that if a blind person is moved from an exit row seat against his will and it is not possible to place him in a comparable seat on the same plane, he should be compensated to the maximum possible extent *vis-a-vis* reaccommodations on the next flight, cash payment, and payment for consequential damages."

Objection to movement was universal on the part of those who commented on this, but for different reasons. The handicapped groups cite humiliation and discrimination. The industry groups cite delay or movement at an inappropriate and dangerous time, such as after the plane has started taxiing or before the captain permits unfastening seat belts after takeoff. The ATA comments on some loss of control over passengers, where the movement results from a passenger's decision to "opt out" of an exit row (whether based on health, fear, or unwillingness to perform emergency evacuation functions).

The ATA also objects to reseating on the basis that this would require "testing" on the part of the flight attendants, rather than the use of best efforts to keep out of exit rows those passengers who do not appear to be able to perform the functions required. It states that subsequent moves, coupled with the movement of persons who themselves "opt out" of the exit row seating, could result in tremendous delays.

The ATA points out that on an average day, more than 18,000 commercial passenger flights carry 1.25 million passengers. If an average of 10 passengers on each flight must be evaluated and if only 3 minutes are spent confirming their qualifications or reseating them, the total time spent complying with this requirement would be 9,000 hours per day.

The RAA also comments unfavorably on the movement of persons that may be seated in exit rows erroneously, but it supports "opting out," if done prior to takeoff.

In regard to its objection to allowing persons to "opt out," the ATA believes that persons should not be given this option, since it believes some persons may use this simply as an opportunity to obtain another seat more to their liking and will delay other passengers unnecessarily.

The RAA suggests that "opting out" should occur prior to entering the plane. It suggests that briefing cards be given to exit row passengers by the ticket agent. If, after reading the briefing cards, passengers do not wish to sit in the exit rows, they would be issued new seat assignments at the gate, minimizing the need for onboard reseating. The RAA points out that this also would eliminate the need for a lengthy oral briefing to the general passenger population. The RAA suggests that flight attendants or the second officers could collect the cards when the final cabin check is made.

The FAA concurs that onboard reseating should be minimized and

believes the RAA suggestion should be followed whenever possible. Clearly, this would provide maximum control and eliminate delays in most cases. The exceptions would be cases where persons have second thoughts after enplaning, where persons attempt to hide disabilities, or where persons believe their disability to be inconsequential, even though the air carrier does not.

In these cases, and in all others where the air carrier notes that an error has been made, the passenger should be moved prior to takeoff, if at all possible. If taxiing has begun or takeoff already is underway, this rule does not require that the passenger be moved. Obviously, this would create dangers as great or greater than allowing the person to remain in place until the craft is airborne. To some extent, the crew's discovery of the problem already will have ameliorated some of the danger. They can remain alert in regard to the location of the problem until they are airborne; they can prepare the passenger to move; and they can alert another passenger to be ready for a seat exchange.

In regard to lengthy oral briefings, the FAA concurs that these might be counter-productive. A brief reference to the special cards in the exit rows, regarding the emergency functions to be performed, should suffice, if delivered with appropriate emphasis. Such emphasis already is being given to limiting carry-on luggage to two pieces and to stowing it completely under the seat or in the overhead compartment. Some air carriers already are asking persons to forego conversation or reading during the briefing and to look at the cards or a video while the flight attendant reviews the safety features as a whole.

Whether the FAA Should Consolidate This Rulemaking With a Rulemaking Pursuant to the ATA/RAA Petition for Rulemaking on Limiting the Number of Passengers With Disabilities and on Requiring Attendants for Passengers with Certain Disabilities

The ATA and the RAA petitioned the FAA to consolidate the exit row rulemaking with rulemaking regarding two issues: (1) limiting the number of passengers with certain disabilities that could be carried at one time on any given flight, and (2) requiring assistants for passengers with certain disabilities.

This is a very specific rulemaking concerning a specific safety issue that the FAA has identified. It would be well beyond the scope of this rulemaking to consider other, far broader issues raised in the ATA and RAA petitions. The

issues of refusal of service (including number limits) and attendant requirements are being considered as part of the rulemaking implementing the ACAA, in which ATA's and RAA's extensive comments are being fully taken into account. Consequently, it would be inappropriate to consider these issues as part of this rulemaking.

Further, the CAMI study demonstrates that any form of disability increases the exit time of an individual and can increase the overall exit time of the passengers as a whole. The salient question then becomes: "What practical steps can be taken to ensure that both the able and disabled passengers complete the emergency evacuation in the least amount of time possible?"

The FAA, after full analysis of the problem, believes that one practical step is to establish exit row seating restrictions. The exit row functions are definable, clear-cut, and absolutely essential to the emergency evacuation process. Even if an exit becomes unusable, this does not alter the need for capable passengers in that row to identify that the exit *is* unusable, to redirect other passengers, or to lead the way to another exit. When considering the factors that affect emergency evacuations, exit row seating is a variable that consistently remains of prime importance. It always will impact upon the capacity of all passengers to evacuate the airplane. Only if *all* the passengers in *all* the exit rows become incapacitated or if *all* exits become unusable will the requirement be moot.

In contrast, the presence of attendants and limitations on the number of persons with disabilities constitute variables of less demonstrable significance. It is possible to demonstrate conclusively that the inability to open an exit door always will affect other passengers. It is not possible to demonstrate conclusively that the presence of an attendant always will affect positively the egress of other passengers. The attendant may fail to assist his or her disabled companion, who may or may not then block other passengers. Able passengers, who were not required to have attendants upon boarding, may be injured and become disabled by virtue of the accident itself. A non-working exit door may alter the flow of traffic and affect the attendant's ability to move a disabled companion without blocking others. The attendant, in fact, may become disabled.

In short, while it is certain that exit row seating will influence the overall speed of the evacuation, it is conjectural that the presence of one or more attendants will do so. The FAA

recognizes, of course, that attendants may be necessary to assist persons with certain disabilities in the course of ordinary activities, such as eating, stowing carry-on baggage, taking medication, or moving about the aircraft. That is a service question, however, and not a safety one.

It is somewhat less conjectural that the number of passengers with disabilities will affect the evacuation rate, but the FAA believes that limitations may not be feasible, except where the size and configuration of the aircraft demand them. The right to travel has been interpreted by the courts to be constitutionally protected. As already discussed, the law also requires meaningful access to air transportation for persons with disabilities. In the case of exit row seating, the right to travel is not infringed, and meaningful access is assured. Further, the exit row seating restrictions apply not only to persons with disabilities, but to parents with small children, obese persons, pregnant women, the elderly frail—a wide spectrum of the passenger population. It could be argued that persons in these categories, therefore, also will affect the speed of evacuation and should be restricted by number.

Clearly, it is not desirable to limit air travel to adults in the prime of their lives, both from the standpoint of age and health. Even limitations short of that would require, in the estimation of the FAA, concrete evidence of detriments to safety that require restrictions on the right to travel. This was not produced during the NPRM comment period. If such evidence is brought to the attention of the FAA, it will reopen the question.

Whether Additional Testing Should Be Undertaken by the FAA, Regarding Attendants and Number Limitations

In 1986, the Office of Science and Technology Policy (OSTP), Executive Office of the President, published a notice regarding a "Proposed Model Federal Policy for Protection of Human Subjects," as a response to the First Biennial Report of the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research (51 FR 20204; June 3, 1986). The OSTP's response was made on behalf of all the affected Federal agencies, including the Department of Transportation, which had concurred with the Model Federal Policy. *Id.*, at 20216.

While the OSTP has not as yet issued a final statement of policy, the Department of Transportation has voluntarily adopted the principles of the proposed model Federal policy. With

certain exceptions not relevant to this discussion, the policy applies to all research involving human subjects conducted, supported, or otherwise subject to regulation by any Federal department or agency that takes appropriate administrative action to make the policy applicable to such research. The Department of Transportation has not taken formal action to make the policy applicable; but, as stated above, it has concurred with the policy.

In brief, the policy calls for careful review of all proposed research involving human subjects, to make certain that:

- (1) Risks are minimized;
- (2) Risks to subjects are reasonable in relation to anticipated benefits, if any, to the subjects;
- (3) Selection of the subjects is equitable;
- (4) Informed consent has been given by each subject or the subject's legally authorized representative, and the informed consent is appropriately documented;
- (5) The data collected will be monitored to ensure the safety and privacy of subjects; and
- (6) Subjects likely to be vulnerable to coercion or undue influence, such as children, prisoners, pregnant women, mentally disabled persons, or economically or educationally disadvantaged persons are afforded additional safeguards to protect their rights and welfare.

In view of this, the FAA has not performed studies that replicate certain types of external or internal hazardous conditions. The FAA has not performed studies that include a panic situation in an emergency evacuation, nor has it sponsored competitive emergency evacuations.

In Great Britain, on the other hand, competitive emergency evacuations are performed for experimental purposes. In effect, volunteer "passengers" are rewarded financially for being first to exit the plane or for escaping within a given time. Persons are encouraged to perform as they would during an actual emergency.

Behavior under such circumstances can be extreme. Unlike the orderly progress toward exits required in FAA experiments, competitive emergency evacuations can and do include shoving, screaming, climbing over other passengers, etc. Common sense indicates that under such conditions, volunteers can be injured, especially if physical or mental disabilities add to their vulnerability.

The FAA believes that the end result of such competitive testing would not differ, except in degree, with studies already performed.

Whether the Requirements Regarding Children in Exit Rows Should Be Simplified by Eliminating All Children From Exit Rows

The ATA suggests that the final rule be simplified by directly banning all children from exit rows. As written, the NPRM affected small children by indirection only, whether traveling alone or with an adult, by describing the types of functions that must be performed during an emergency evacuation and the skills necessary for performing those functions. All of the required functions clearly are beyond the capabilities of small children. The intent of the NPRM was to eliminate young persons who would require the assistance of an adult companion (relative, guardian, etc.) during an emergency evacuation or who, due to their age or size, would not have the cognitive or physical ability to perform emergency evacuation functions, if traveling alone.

The FAA concurs that simplification is desirable and that children should be banned from emergency exit rows. Dictionaries define a "child" variously as someone between "infancy" and "youth" or a person between "birth" and "puberty" or "adolescence." Since persons vary in their maturation and growth, it is difficult to establish a clear cut-off point between childhood and adolescence. A number of existing laws, regulations, and practices, however, point to the age of 15 as a turning point into adulthood. In many States it is the age when driver's licenses and work permits become available. In view of this, the FAA has selected 15 as the necessary minimum age for exit row occupancy.

Whether the Definition of "Exit Row" Should Be Narrowed To Take Into Account Varying Fleet Configurations Among Airlines

The ATA comments that certain exit rows could be excluded from the scope of the rule, if all of the following criteria are met:

- (a) The nearest seat in the exit row is at least 36 inches from the exit;
- (b) The width of the access aisle is at least 22 inches; and
- (c) The exit is a floor level exit (one without a sill).

The ATA claims that exit rows meeting the above criteria would not be blocked by a person who does not meet the functional requirements listed in the

NPRM. The RAA requests clarification of the definition of an "exit row," since in some aircraft there is no clearly discernible aisleway. This would cause confusion as to what is considered a floor-level exit row.

The NFB, in the past, and other commenters have suggested that the rule could be made less restrictive by restricting only the seats next to the exit doors. The ATA suggestion also would result in a less restrictive rule and was given very careful consideration by the FAA in view of this. Many persons with disabilities voiced their displeasure during the ACAA regulatory negotiations, however, with air carrier instructions to remain seated until they could be assisted. The FAA believes it would not be realistic to consider that persons with disabilities would not attempt to unbuckle their seat belts or attempt to move toward the exit immediately. This could occur at the critical point of initiating sufficient momentum for the evacuation flow.

Further, seating persons with disabilities in those rows would result in some time loss, as other passengers or crewmembers made their way to the exits. These functions involve a cooperative group effort. Persons in an over-the-wing exit row, for example, may have to move out of the way rapidly while the person in the window seat removes the exit and places it upon the seat or maneuvers it over the back of the seat.

In cases where the exit is not immediately adjacent to the row, an accident requiring an emergency evacuation might create obstacles that would impede getting to the exit to begin the evacuation process. An able-bodied person would be in a better position to cope with a disabled flight attendant strapped in a rearward-facing bulkhead seat immediately adjacent to the exit.

The initial evacuees should be able to hold down the slide and to assist people in getting away from the slide. If the one non-handicapped person in the row is incapacitated, by default the others in that row will become those who must not only open the exit but perform the balance of the team functions.

The FAA recognizes the dilemma of the RAA in designating "exit rows," since many smaller aircraft have no seats adjacent to floor-level exit doors. In view of this, the definition of an "exit row" has been modified to include the closest row or any seat which has direct access to an exit or has no obstruction between it and the exit.

Whether the Functions and Criteria and a Statement About Passengers' Performing Exit Row Duties Should Be Included in Passenger Information Cards at Seats Affected by the Rule and in Passenger Briefings

The ATA believes that excessive information on cards (the cards required by §§ 121.571 and 135.117 of the FAR to supplement the oral passenger briefings also required by these sections) and lengthy briefings will be ignored by passengers and will create anxiety. ATA recommends that, instead, all passengers should be advised by a simple notice on the existing information cards, or as part of the standard safety briefing, that they may be called upon to open an exit or otherwise assist the crew in the event of an emergency.

The RAA comments that in 1985, the NTSB completed a study on briefing cards. The study concluded that the use of illustrations and minimal verbiage resulted in more passengers reading the cards. The RAA suggests that a special briefing card be offered to exit row passengers and that other cards not be changed.

As previously discussed, other groups such as the ACB opt for more information, rather than less, and want it in Braille, large print, and on tapes. Several persons suggest 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 for everyone's benefit.

The FAA concurs that briefing cards must be kept simple and succinct to encourage passengers to read them. The FAA believes, however, that safety will be enhanced if passengers are given additional information on emergency evacuation functions. While these functions may fall only to persons seated in exit rows, it is conceivable that incapacitation of one or more exit row occupants may require assistance from other passengers. Further, if all passengers are aware of the procedures, it may elicit greater cooperation on their part, such as not crowding the exit row occupants while the exit is being opened, moving back to allow stowage of an over-the-wing exit door, and even readily accommodating a transfer of seating before takeoff.

In view of this, the FAA final rule requires that all briefing cards for the general public contain the basic illustrations regarding emergency

evacuations already found on briefing cards, concerning the following:

- (1) The location and types of exits;
- (2) The opening mechanisms;
- (3) The use of the opening mechanisms;
- (4) The activation and/or use of slides;
- (5) Use of the wings for emergency evacuations;
- (6) Movement away from the airplane after reaching the ground;
- (7) Emergency evacuations over water ("ditching");
- (8) Use of oxygen masks; and
- (9) Any other information/illustration needed to impart information on emergency evacuations of the particular airplane involved or new developments in evacuation techniques and procedures.

In addition, this rule requires that the safety functions stated in §§ 121.585 and 135.127 of the FAR be listed on all briefing cards. Some, but not all, of these functions already are illustrated on the cards now used by certificate holders. The listing will serve to reinforce the graphic information and also will draw attention to functions that are not illustrated easily.

Finally, this rule requires that each certificate holder shall include on passenger information cards, at all seats affected by these sections, presented in the languages used by the certificate holder for passenger information cards, the criteria set forth in paragraph (b) of §§ 121.585 and 135.127 of the FAR, to enable passengers to self-identify if they are or believe they are incapable of performing the functions. Multilingual cards may be necessary to enable passengers to self-identify. Exit row occupants, however, must be capable of understanding the crew's oral commands. Proficiency in the English language is not necessary, but exit row occupants should be able to understand simple instructions in English. This requirement must be made clear on the cards.

As previously discussed, the matter of providing cards in Braille or large print for passengers seated in non-exit rows is outside the scope of this rulemaking. The FAA encourages certificate holders to do so, however, and to design the cards in a manner that will ensure maximum independence for blind passengers who desire this during an emergency evacuation.

Whether a Less Stringent Standard for Exit Row Seating Should Be Adopted for Regional Carriers Due to Smaller Cabin Size

The RAA strongly opposes a less stringent standard, commenting that the

absence or small number of flight attendants on aircraft with limited seating makes it even more imperative that able persons be seated near the exits to assist.

It is apparent from the RAA's reference to flight attendants that the RAA's comment concerns commuter flights. The FAA concurs with the RAA in regard to commuters, and the rule sets the same standard for all U.S. air carriers and commercial operators (certificate holders) of this type.

The FAA has decided, however, to exempt the on-demand operations of air taxis with nine or fewer passenger seats from this rule. Persons with disabilities, to whom other types of commercial flights are unavailable, should have access to air travel. Since these chartered flights may carry only the handicapped person, or, at most, friends, family, or assistants, instead of large numbers of passengers, the FAA has determined that exit row seating restrictions should not apply.

Whether Written Procedures Should Be Approved by the Local Principal Operations Inspector Rather Than by the Director of the Flight Standards Service

The RAA states that the requirement for final approval in FAA Headquarters could cause situations where a carrier's procedures will be unenforceable until the approval is granted, with exit row restrictions not implemented for several months.

The FAA believes that the RAA's comment is premised on the belief that the FAA expects complicated procedures regarding the identification of exit row passengers. This is not the case. As already discussed, the FAA believes that the functions and criteria stated in the rule are clear and sufficiently self-explanatory to be adopted by certificate holders and to serve as the procedures for the selection of exit row passengers. The balance of the procedures, which will relate to the personnel making the selections, the filing of complaints, and other administrative actions, should be fairly simple. The final product, therefore, should not require prolonged review. The main thrust of that review will be to determine that the certificate holders have not added criteria and functions that are not in accord with the rule or which go beyond what is required for safety.

During the ACAA regulatory negotiations, organizations representing persons with disabilities strongly recommended that any procedures developed relative to their constituents be reviewed by high-level management

to ensure that the nondiscriminatory purposes of the ACAA be carried out. The FAA recognizes that this is a valid request in regard to the exit row seating rule, as well. In the concern for air safety, it is sometimes difficult to keep other important concerns in mind, both within the FAA and among the certificate holders. Approval by the Director of the FAA's Flight Standards Service will highlight the necessity of accomplishing the aim of safety without detriment to the goal of nondiscrimination.

Discussion of Emergency Evacuations—Exit Row Passenger Functions

In the NPRM, the FAA discussed the types of functions which may be necessary for exit row occupants to perform. While these are contained in the rule, the FAA believes it is appropriate to repeat the discussion material found in the NPRM in order to provide certificate holders and other interested parties with a single document that encompasses all the FAA thinking on this issue.

Note: Some portions of the following discussion have been modified to reflect the impact of comments or rearrangement of the information in response to a comment.

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 or 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 or 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 opening 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) 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 exit 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 in which the mechanism must be moved 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, during the FAA's visit to the training facility for flight attendants, 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 that 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.

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 that might open onto dangerous conditions, such as jagged metal, ice, water, unexpected distance to the ground or some other condition that 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 allow the latter to sit in an exit row, would be to increase risk 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, water, and other hazards such as those mentioned above. 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. As previously discussed, it is not certain, however, that in any given crash scenario darkness will be so complete as to render sight useless.

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 a window exit, 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 understand the language in which crew commands are given. 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 not to place persons needing such explanation 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 those exit rows cannot see it or hear and understand shouted directions and warnings from crewmembers.

Other Options for Exit Row Seating

The FAA invited comments on other options previously considered by the FAA as well as any other options the agency may not have considered. As discussed below, the FAA did not find alternative exit row seating plans persuasive.

The first option is the approach originally proposed in Notice 74.25 in 1974. Basically, this would prohibit 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 study.

The second option was suggested by a representative of one of the groups of persons with disabilities. This calls for only the seat adjacent to a window exit to be reserved for persons capable of performing the necessary functions.

Again, this approach presupposes the survival or undiminished capacity of this able-bodied person during an accident or emergency landing. Further, it would allow handicapped persons to be seated in a row of seats adjacent to a floor-level exit row. This approach is not viable, given the available data on evacuation flow.

The FAA's objective in this rule 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. As already discussed, 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. 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 be able to recognize the need for moving out of the way rapidly and have the capacity to do so. In addition, everyone in the row must be capable of performing the necessary functions because the seat adjacent to the emergency exit may be unoccupied.

The FAA reiterates that 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.

Another concern that was expressed relates, in the commenters' view, 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 comment 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. It is well-established that a fastened seatbelt may be the difference between saving and losing a life. Although seldom needed, they always are required. As discussed herein in conjunction with the matters of attendants and limitations on numbers of passengers with disabilities, the FAA

recognizes that the crashworthiness standard does not stand alone. It is subject to technical limitations and competing social aims. The social aims, however, must rise above the level of mere inconvenience.

The FAA's goal in this matter is safety for the maximum number of people possible. It is clear from the studies 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 exit flow rate or to his or her own escape through an exit.

The FAA sought additional studies or data concerning the issues raised by this rulemaking. The FAA was able to obtain further information on an evacuation exercise the National Federation of the Blind conducted in conjunction with World Airways in 1985. No other experiments, exercises, or studies came to light.

Requirements for Compliance With the Rule

In order to comply with the regulations, certificate holders must develop procedures and revise their pertinent handbooks, for review and approval by the principal operations inspectors (POI's) at the FAA Flight Standards District Offices that are charged with the overall inspection of their operations. A carrier's procedures will not become effective until final approval is granted by the Director, Flight Standards Service, at FAA Headquarters.

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 rule. To be approved, a certificate holder's procedures must include the criteria and address all of the functions enumerated in the regulations as ones that may fall to a person in an exit row.

The procedures also must include provisions by each certificate holder to make available at all loading gates and counters at each airport it serves, and at each seat affected by the regulations, the information advising the occupying passenger that he or she may be called upon to perform the enumerated functions. Passenger information cards for other rows and seats also shall

enumerate the emergency evacuation functions.

Certificate holders also must include provisions verify the appropriateness of exit row seating assignments prior to takeoff and to brief 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 feels capable of performing those functions and responding to oral commands in English from the crew.

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 of the FAR, certificate holders' procedures must 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"; 121.418, "Differences training: Crewmembers and dispatchers"; 121.421, "Flight attendants: Initial and transition ground training"; 121.417, "Recurrent training"; 135.295, "Initial and recurrent flight attendant crewmember testing requirements"; and 135.319, "Crewmember training requirements." Accordingly, §§ 121.585 and 135.127 of the FAR 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 includes:

(1) The rule is very explicit and could be implemented with minimal written procedures;

(2) Passengers with complaints based on either 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 will be implemented with minimal written procedures, there will be little to review and approve, and the cost of submission will 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 of the FAR, "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 rule's 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 rule in exactly the same way.

The requirements are applicable to the operations of all part 135 air taxi operators, except the operations of on-demand air taxis with nine or fewer passenger seats, 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 § 135.129 of the FAR, however, to aircraft having a passenger seating configuration of more than 19 passengers, but was persuaded by the comments of the RAA that this would not be advisable.

Compliance Dates

As previously discussed herein, OST has proposed a rule to implement the ACAA, to which the FAA's exit row rule relates. It is the intention of the Department that both 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 of the FAR.

While OST recognizes that the existing procedures of certificate holders may have shortcomings, at present they constitute the only available mechanism for monitoring emergency exit row seating from the standpoint of safety. A hiatus would not be in the best interests of safety, and the present procedures must be used until §§ 121.585 and 135.129 of the FAR become effective.

The present air carrier procedures also must remain in effect until the certificate holders complete any training

that may be necessary for crewmembers and other personnel; make appropriate revisions to their manuals; and complete production of new passenger information cards for occupants of aisle seats as well as other informational material that may be necessary under the rule. The FAA believes that these actions can be accomplished within 180 days of the effective date of this rule, and the compliance date has been set accordingly.

Regulatory Evaluation

Economic Impact Summary

This section summarizes a regulatory evaluation prepared by the FAA that provides detailed estimates of the economic consequences of this rule. The full evaluation quantifies, to the extent practicable, estimated costs to the private sector; consumers; and Federal, State, and local governments, as well as anticipated benefits and impacts.

Executive Order 12291 dated February 17, 1981, directs Federal agencies to promulgate new regulations or modify existing regulations only if potential benefits to society for each regulatory change outweigh potential costs. The order also requires the preparation of a Regulatory Impact Analysis of all "major" proposals except those responding to emergency situations or other narrowly defined exigencies. A "major" proposal is one that is likely to result in an annual effect on the economy of \$100 million or more, a major increase in consumer costs, or a significant adverse effect on competition, or one that is highly controversial.

The FAA has determined that this rule is not "major" as defined in the Executive Order; therefore, a regulatory analysis, which includes the identification and evaluation of cost-reducing alternatives to the rule, has not been performed. Instead, the FAA has prepared a regulatory evaluation of just this rule without identifying alternatives. In addition to a summary of the regulatory evaluation, this section also contains a regulatory flexibility determination required by the 1980 Regulatory Flexibility Act (Pub. L. 96-354) and an international trade impact assessment. If more detailed economic information is desired than is contained in this summary, the reader is referred to the full regulatory evaluation contained in the docket.

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 rule replaces the industry's varying policies and inconstant practices with a uniform and uniformly applicable rule. The rule provides a comprehensive set of procedures, based on explicit criteria, that can be carried out with only minimal training cost. Changes to the certificate holders' operations manuals, 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 rule will 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, will 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 will cost, at maximum, approximately \$220,000 for all potentially affected seats under the applicability in both part 121 and part 135 of the FAR. The maximum approximate cost per aircraft will range from \$20 to \$60 for part 135 commuters with more than 19 seats and airplanes operating under part 121 of the FAR. The approximate cost per aircraft for part 135 commuters with 19 or fewer seats and for large air taxis (10-19 seats) will be \$5.

The cost of making copies of the criteria available at airports will be negligible. The incremental cost of printing the procedures and making them available at each airport will 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.

The requirement for verification of appropriately occupied affected seats prior to closing all passenger entry doors preparatory to taxi or pushback will 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 will be accomplished at no cost.

Accommodating a passenger being relocated from an exit row seat when non-exit row seats are fully booked will involve no cost. That person will not be denied transportation, nor will 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. (In a rare case, it may be impossible to relocate a handicapped passenger due to his or her particular handicap and the particular configuration of an aircraft; e.g., the only seat on the aircraft that can accommodate a leg cast will be in an exit row.)

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

Since it is highly unlikely that a passenger will be denied transportation, there will be no, or, at the most, a negligible loss of revenue.

The potential benefits that will be derived from this rule are substantial. The FAA estimates the benefits based on a broad body of information which is discussed in detail elsewhere in this rule. 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). The 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 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 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 rules will account for a benefit of substantial numbers of lives saved as contrasted with potential loss of life in the absence of such regulations.

The prevention of only one life lost in an accident will alone more than pay for the cost of this rule. The data clearly indicate that the rule will be justified on

a benefit-to-cost basis. Each affected section in part 121 and part 135 of the FAR 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 will be only negligible cost associated with this rule for an operator, the FAA has determined that the rule will not have a significant economic impact, positive or negative, on a substantial number of small entities.

Trade Impact Statement

Since this rule will affect only part 121 and part 135 certificate holders (except operations of on-demand air taxis with nine or fewer passenger seats) regarding seating of passengers in exit rows, the FAA has determined that the regulation will not have an impact on international trade.

Paperwork Reduction Act Clearance

This rule imposes information collection requirements (i.e., procedures to be submitted to the FAA, revision of passenger information cards in exit rows, and dissemination of procedures at airports served by the air carriers). A Paperwork Reduction Act clearance request has been submitted to the Office of Management and Budget. The information collection requirement does not go into effect until OMB clearance and the assignment of an OMB control number. We will publish a Federal Register notice when the OMB control number is received.

Federalism Implications

These regulations will 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 this 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 regulation is not major under Executive Order 12291 and certifies that this rule 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 rule is considered

significant under Department of Transportation Regulatory Policies and Procedures (44 FR 11034; February 26, 1979). A regulatory evaluation, 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

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

14 CFR Part 135

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

The Rule

Accordingly, the FAA amends 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 the closest row or in any seat that has direct access to an exit, hereafter referred to as exit row seats), 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 affected by this section if the certificate holder determines that it is likely that the person would be unable to perform one or more of the

applicable functions listed in paragraph (d) of this section because—

(1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs:

(i) To reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms;

(ii) To grasp and push, pull, turn, or otherwise manipulate these mechanisms;

(iii) To push, shove, pull, or otherwise open emergency exits;

(iv) 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;

(v) To remove obstructions similar in size and weight to over-wing exit doors;

(vi) To reach the emergency exit expeditiously;

(vii) To maintain balance while removing obstructions;

(viii) To exit expeditiously;

(ix) To stabilize an escape slide after deployment; or

(x) To assist others in getting off an escape slide;

(2) The person is less than 15 years of age or lacks the capacity to perform one or more of the applicable functions listed in paragraph (d) of this section 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 or the ability to understand oral crew commands in the English language;

(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;

(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 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 cause the person harm if he or she performs 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, information that, in the event of an emergency in which a crewmember is not available to assist, a passenger occupying an exit row seat may use if called upon to perform the following functions:

- (1) Locate the emergency exit;
- (2) Recognize the emergency exit opening mechanism;
- (3) Comprehend the instructions for operating the emergency exit;
- (4) Operate the emergency exit;
- (5) Assess whether opening the emergency 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 emergency 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 emergency exit; and
- (10) Assess, select, and follow a safe path away from the emergency exit.

(e) Each certificate holder shall include on passenger information cards, presented in the languages used by the certificate holder for passenger information cards, at all seats affected by this section, the selection criteria set forth in paragraph (b) of this section, and a request that a passenger identify himself or herself to allow reseating if he or she:

- (1) Cannot meet the selection 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.

(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 no exit row seat is occupied by a person the crewmember determines is likely to be unable to perform the applicable functions listed 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 selection criteria set forth in paragraph (b), and the functions to be performed, set forth in paragraph (d) of this section.

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

- (1) Cannot meet the selection 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 listed in paragraph (d) of this section; or,
- (4) Does not wish to perform those functions listed in paragraph (d) of this section.

A certificate holder shall not require the passenger to disclose his or her reason for needing reseating.

(j) Each certificate holder shall honor expeditiously a passenger's request to be relocated to a non-exit row seat.

(k) In the event a certificate holder determines in accordance with this section that it is likely that a passenger assigned to an exit row seat would be unable to perform the functions listed 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 exit row seat.

(m) A certificate holder may deny transportation to any passenger under this section only because—

- (1) the passenger 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, or

(2) the only seat that will physically accommodate the person's handicap is an exit row seat.

(n) In order to comply with this section certificate holders shall—

(1) Establish procedures that address:

(i) The criteria listed in paragraph (b) of this section;

(ii) The functions listed in paragraph (d) of this section;

(iii) The requirements 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 this section;

(iv) How to resolve disputes arising from implementation of this section, including identification of the certificate holder employee on the airport to whom complaints should be addressed for resolution; and,

(2) Submit their procedures for preliminary review and approval to the principal operations inspectors assigned to them at the FAA Flight Standards District Offices that are charged with the overall inspection of their operations.

(o) Certificate holders shall assign seats prior to boarding consistent with the criteria listed in paragraph (b) and the functions listed in paragraph (d) of this section, to the maximum extent feasible.

(p) The procedures required by paragraph (n) 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 holder's 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. 97-449, January 12, 1983)

4. New § 135.129 is added to read as follows:

§ 135.129 Exit row seating.

(a) Except for on-demand air taxis with nine or fewer passenger seats, 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 the closest row or in any seat that has direct access to an exit, hereafter referred to as exit row seats), in accordance with this section. These determinations shall be made in a non-discriminatory manner consistent with the requirements of this section, by the pilot in command, in those cases described in § 135.21(a), when an operations manual is not required, or by persons designated in the certificate holder's manual if it is required by that section.

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

- (1) The person lacks sufficient mobility, strength, or dexterity in both arms and hands, and both legs:
 - (i) To reach upward, sideways, and downward to the location of emergency exit and exit-slide operating mechanisms;
 - (ii) To grasp and push, pull, turn, or otherwise manipulate those mechanisms;
 - (iii) To push, shove, pull, or otherwise open emergency exits;
 - (iv) 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;
 - (v) To remove obstructions of size and weight similar over-wing exit doors;
 - (vi) To reach the emergency exit expeditiously;
 - (vii) To maintain balance while removing obstructions;
 - (viii) To exit expeditiously;
 - (ix) To stabilize an escape slide after deployment; or
 - (x) To assist others in getting off an escape slide;

(2) The person is less than 15 years of age or lacks the capacity to perform one or more of the applicable functions listed in paragraph (d) of this section 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 or the ability to understand oral crew commands in the English language.

(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;

(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 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 cause the person harm if he or she performs 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, information that, in the event of an emergency in which a crewmember is not available to assist, a passenger occupying an exit row seat may be called upon to perform the following functions:

- (1) Locate the emergency exit;
- (2) Recognize the emergency exit opening mechanism;
- (3) Comprehend the instructions for operating the emergency exit;
- (4) Operate the emergency exit;
- (5) Assess whether opening the emergency 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 emergency 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 emergency exit; and
- (10) Assess, select, and follow a safe path away from the emergency exit.

(e) Each certificate holder shall include on passenger information cards, presented in the languages used by the certificate holder for passenger information cards, at all seats affected by this section, the selection criteria set forth in paragraph (b) of this section, and a request that a passenger identify himself or herself to allow reseating if he or she:

(1) Cannot meet the selection 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.

(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 no exit row seat is occupied by a person the crewmember determines is likely to be unable to perform the applicable functions listed 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 selection criteria set forth in paragraph (b), and the functions to be performed, set forth in paragraph (d) of this section.

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

(1) Cannot meet the selection 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 honor expeditiously a passenger's request to be relocated to a non-exit row seat.

(k) In the event a certificate holder determines in accordance with this section that it is likely that a passenger assigned to an exit row seat would be unable to perform the functions listed 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 exit row seat.

(m) A certificate holder may deny transportation to any passenger under this section only because—

(1) The passenger 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, or

(2) The only seat that will physically accommodate the person's handicap is an exit row seat.

(n) In order to comply with this section certificate holders shall—

(1) Establish procedures that address:

(i) The criteria listed in paragraph (b) of this section;

(ii) The functions listed in paragraph (d) of this section;

(iii) The requirements 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 this section;

(iv) How to resolve disputes arising from implementation of this section, including identification of the certificate holder employee on the airport to whom complaints should be addressed for resolution; and,

(2) Submit their procedures for preliminary review and approval to the principal operations inspectors assigned to them at the FAA Flight Standards

District Offices that are charged with the overall inspection of their operations.

(o) Certificate holders shall assign seats prior to boarding consistent with the criteria listed in paragraph (b) and the functions listed in paragraph (d) of this section, to the maximum extent feasible.

(p) The procedures required by paragraph (n) 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 holder's procedures.

Issued in Washington, DC, on February 28, 1990.

James B. Busey,
Administrator.

[FR Doc. 90-4997 Filed 3-2-90; 8:45 am]

BILLING CODE 4910-13-M

DEPARTMENT OF TRANSPORTATION

14 CFR Part 382

[Docket No. 46812; Notice 90-11]

RIN 2105-AB61

Nondiscrimination on the Basis of Handicap in Air Travel**AGENCY:** Office of the Secretary, DOT.**ACTION:** Supplemental notice of proposed rulemaking (SNPRM).

SUMMARY: This supplemental notice of proposed rulemaking asks for comment on three proposals to amend the provisions of the Department's rule to implement the Air Carrier Access Act of 1986. The proposals concern terminal transportation systems, standards for boarding chairs, and substitute transportation service in cases in which persons were unable to board small aircraft.

DATES: Comments should be received by June 4, 1990. Late-filed comments will be considered to the extent practicable.

ADDRESSES: Comments should be sent to Docket Clerk, Docket No. 46812, Department of Transportation, 400 7th Street, SW., Washington, DC 20590, room 4107. For the convenience of persons who will be reviewing the docket, it is requested that commenters provide duplicate copies of their comments. Comments will be available for inspection at this address Monday through Friday from 9 a.m. through 5:30 p.m. Commenters who wish the receipt of their comments to be acknowledged should include a stamped, self-addressed postcard with their comments. The docket clerk will date-stamp the postcard and mail it to the commenter.

FOR FURTHER INFORMATION CONTACT: Robert C. Ashby, Deputy Assistant General Counsel for Regulation and Enforcement, Department of Transportation, 400 7th St., SW., room 10424, Washington, DC 20590. Telephone 202-366-9306 (voice); 202-755-7687 (TDD). A taped copy of the SNPRM is available on request.

SUPPLEMENTARY INFORMATION: The Department is considering three additions to the final rule (14 CFR part 382) to implement the Air Carrier Access Act of 1986. These proposed additions concern standards, drafted by the Architectural and Transportation Barriers Compliance Board (ATBCB), for boarding chairs; terminal transportation systems; and substitute service for persons denied the opportunity to fly because of inaccessible small aircraft.

1. *Airport transportation systems.* Many airports have their own transportation systems, such as bus or vans that shuttle among terminals or between terminals and parking lots or internal systems like moving sidewalks or electric carts. These features appear to be operated or controlled by the airport operator or its contractors in most instances, rather than by carriers. However, carriers may own or control these systems in some cases.

The Department seeks comment on ways to make airport transportation systems accessible, for inclusion in 49 CFR 382.23, the final rule's section on airport accessibility. The Department did not include such a requirement in the final rule because we had not previously asked for comment on it and because there may be a number of feasibility and cost issues on which comment would be useful.

For example, to what extent are such systems now accessible? Where such systems are inaccessible, what, if any, provision is made for alternative service to disabled passengers? Where vehicles are used, is it feasible to make existing vehicles and/or new vehicles accessible (e.g., by installing lifts) and, if so, what are the likely costs? Are moving sidewalks and other internal "people mover" systems typically accessible at this time? If not, what are the technical and cost implications of making them so? Are there alternatives to facilities accessibility for these systems that are adequate and consistent with the ACAA?

The Department is raising similar issues for comment in its NPRM to amend 49 CFR section 27.71, the provision in the Department's section 504 rule applying to Federally-assisted airports. The rule text proposed in this SNPRM is identical to that proposed in the NPRM to amend 49 CFR section 27.71.

2. *Boarding Chair Standards.* In its comment to the docket for the final Air Carrier Access Act rule, the ATBCB suggested certain standards for boarding chairs. The standards are set forth in the rule text portion of this SNPRM.

The Department seeks comment on whether it should adopt these standards. The Department also would like information in response to various questions about the standards. Would existing models of boarding chairs meet the standards? If not, would it be feasible, technically and economically, to change boarding chairs to meet standards? If the standards were adopted, should there be modifications? Given the potential for the development and use of lifts, are boarding chairs likely to become obsolete, such that

adopting standards is irrelevant? Are boarding chairs meeting the ATBCB standards useful for assisting passengers to board all types of aircraft, or would different standards be needed, for example, for use with small aircraft?

3. *Substitute service or compensation.* The Air Carrier Access Act rule (14 CFR section 382.39(a)(3)) provides that, in the event that the physical limitations of an aircraft with less than 30 passenger seats preclude the use of existing models of lifts, boarding chairs, or other feasible devices to enplane a handicapped person, the carrier is not required to carry the handicapped person onto the aircraft by hand. The development of lifts for small aircraft is under way; the Department intends that once they are available, they must be used.

In the meantime, there are likely to be instances in which some handicapped persons will be unable to fly on some small aircraft. These situations can sometimes arise unexpectedly, as when a smaller aircraft is substituted for an originally scheduled aircraft for mechanical, weather, or passenger load reasons. Such a situation could also arise under the FAA's exit row rule, if the only seat which a handicapped person could reach via the boarding chair or other means of entry to the aircraft happened to be a seat adjacent to an exit (e.g., if, because of a narrow aisle, a boarding chair could only get to the first row, which was next to the door). To mitigate these problems, the Department is proposing that carriers be required, where feasible, to provide substitute service by another flight, motor vehicle or other means, or to provide denied boarding compensation (DBC) to the person, just as if the person had been bumped in an overbooking situation.

For example, suppose that a handicapped person is unable to board a commuter flight in Small City X to travel to Hub Y. The commuter carrier would have a number of options. It could provide an accessible van that would drive the handicapped passenger to Hub Y. If service from X to Y were available on another air carrier within a reasonable time, the aircraft of which are accessible to the passenger, the first carrier could arrange service to Y on the second carrier. If accessible service to Y from the nearby Hub Z were available on another carrier within a reasonable time, the first carrier could provide van service to Z where passenger could use the second carrier's service. In all cases, the first carrier's substitute service would be offered to the handicapped passenger without extra charge. As an

alternative to substitute service, the carrier could offer the passenger DBC, which would be required, in any case, if substitute service meeting the requirements of the rule were not available.

This substitute service requirement would apply only where feasible. For example, in Alaska, there may not be roads between some points, precluding substitute van service. Some flights may be over water (e.g., to islands off the New England Coast), and accessible alternate air transportation or ferry service is not available. In these situations, payment of DBC would be the only option open to the carrier.

The Department seeks comment on the cost and feasibility of this proposed requirement, as well as on operational considerations. For example, what, if any, advance notice would it be reasonable to require in order for carriers to provide this substitute service? Should there be time frames for the service different from those provided in the proposed rule text? Should a similar requirement pertain to situations in which a handicapped person can enter a plane but the aircraft cannot accommodate the person's wheelchair? That is, if there is no room in the baggage compartment for a wheelchair, should the carrier be required to provide substitute service for the wheelchair so that it can catch up with the passenger as soon as possible? Where substitute service is not provided, should denied boarding compensation be required? Should the passenger have a choice, in any case, between substitute service and denied boarding compensation?

Regulatory Process Matters

This is neither a major rule under Executive Order 12291 nor a significant rule under the Department's Regulatory Policies and Procedures. The Department certifies, under the Regulatory Flexibility Act, that the proposal, if adopted, would not have a significant economic effect on a substantial number of small entities. There are not sufficient Federalism impacts to warrant the preparation of a Federal assessment. The NPRM has been reviewed and approved by the Office of Management and Budget under Executive Order 12291.

List of Subjects in 14 CFR Part 382

Aviation, Handicapped.

Issued this 28th day of February 1990, at Washington, DC.

Samuel K. Skinner,

Secretary of Transportation.

For the reasons set forth in the preamble, the Department of

Transportation proposes to amend title 14 of the Code of Federal Regulations, part 382, as follows:

PART 382—NONDISCRIMINATION ON THE BASIS OF HANDICAP IN AIR TRAVEL

1. The authority citation for part 382 continues to read as follows:

Authority: Sections 404(a), 404(c), and 411 of the Federal Aviation Act of 1958, as amended (49 U.S.C. 1374(a), 1374(c), and 1381).

2. By adding a new paragraph (c)(7) to § 382.23 thereof, to read as follows:

§ 382.23 Airport facilities.

(c) * * *
(7) Systems for moving within or among terminals shall, when viewed as a whole, be accessible to and usable by qualified handicapped individuals.
* * * * *

3. By adding new paragraphs (a)(5), (a)(6), and (a)(7) to § 382.39 thereof, to read as follows:

§ 382.39 Provision of services and equipment.

(a) * * *
(5) Chairs used to assist in enplaning and deplaning mobility impaired persons shall be designed to safely support the 99th percentile male, with a safety factor of three, shall be designed to be compatible with the maneuvering space, aisle width and seat height of the aircraft on which they are intended to be used, shall be movable while in the upright position, and shall meet the applicable wheelchair structural and stability standards prescribed by the American National Standards Institute (ANSI). In addition, the following conditions shall be met;

(i) Adequate restraint systems, designed to prevent incorrect connection, shall be provided to stabilize passenger's torso, hips and legs and to prevent feet slipping off footrests (where carrying up or down stairs is required, a more extensive system may be needed than for ramp boarding);

(ii) A locking mechanism shall be provided which prevents the chair from moving while the passenger is transferring to or from the boarding chair and which will hold the chair in place on slopes typically found in the aircraft boarding bridges or ramps;

(iii) Movable or removable armrests shall be provided with sufficient strength to aid in body positioning;

(iv) Backrest height shall not interfere with passenger transfer to or from the boarding chair; the seat shall slant back slightly; where carrying up or down

stairs is required, a movable or removable headrest/backrest should be provided to support the passenger's head and upper torso;

(v) Footrest(s) shall be provided that adequately support passenger's feet;

(vi) Structurally sound handles shall be provided, for pushing and maneuvering the occupied chair by carrier or other personnel, at the upper backrest and, if carrying is required, in the vicinity of the footrests; gripping surfaces shall be slip-resistant, appropriately shaped and positioned for easy use, and clearly identifiable; and

(vii) The seat shall be padded, covered in a material which does not interfere with body repositioning.

(6) If, in the circumstances provided in paragraph (a)(4) of this section, a qualified handicapped person is unable to board an aircraft, the carrier shall offer substitute service to the passenger, at no additional cost, in one of the following ways, unless doing so is infeasible:

(i) Using an accessible motor vehicle, driving the passenger to his or her destination or the next hub airport at which service to the destination is available and accessible to the passenger. The motor vehicle shall depart within one hour of the scheduled departure time of the flight on which the passenger could not be accommodated; or

(ii) Ensuring that the passenger is provided air transportation on another carrier's flight to his or her destination, or to the next hub airport at which service to the destination is available and accessible to the passenger. The alternate air transportation shall be on a flight the scheduled departure time of which is within three hours of the scheduled departure time of the flight on which the passenger could not be accommodated.

(7) If substitute service is infeasible, or is not provided within the time frames set forth in paragraph (a)(5) of this section, the carrier shall provide to the passenger compensation in the amounts provided for denied board compensation for overbooking in 14 CFR part 250. The carrier may offer the passenger denied boarding compensation as an alternative to substitute service, which the passenger may choose to accept.
* * * * *

[FR Doc. 90-4994 Filed 3-2-90; 8:45 am]

BILLING CODE 4910-62-M

14 CFR Part 382

[Docket No. 46811; Notice 90-10]

RIN 2105-AB60

Nondiscrimination on the Basis of Handicap in Air Travel**AGENCY:** Office of the Secretary, DOT.**ACTION:** Advance notice of proposed rulemaking (ANPRM).

SUMMARY: This advance notice of proposed rulemaking asks for comment on a number of issues related to the rulemaking to implement the Air Carrier Access Act of 1986, on which the Department believes that more information is necessary before decisions can be made. The Department will propose to amend its final Air Carrier Access Act rule if we conclude, in response to comments to this notice, that additional provisions or changes in existing provisions are warranted.

DATES: Comments should be received by July 5, 1990. Late-filed comments will be considered to the extent practicable.

ADDRESSES: Comments should be sent to Docket Clerk, Docket No. 46811, Department of Transportation, 400 7th Street, SW., Washington, DC 20590, room 4107. For the convenience of persons who will be reviewing the docket, it is requested that commenters provide duplicate copies of their comments. Comments will be available for inspection at this address Monday through Friday from 9 a.m. through 5:30 p.m. Commenters who wish the receipt of their comments to be acknowledged should include a stamped, self-addressed postcard with their comments. The docket clerk will date-stamp the postcard and mail it to the commenter.

FOR FURTHER INFORMATION CONTACT: Donald Trilling or Ira Laster, Office of Policy and International Affairs, Department of Transportation, 400 7th St., SW., room 9117, Washington, DC 20590. Telephone 202-366-4813. A taped copy of the ANPRM is available upon request.

SUPPLEMENTARY INFORMATION: This advance notice of proposed rulemaking (ANPRM) requests comment on two features of great importance to those with mobility impairments: (1) Lifts and other boarding equipment for use in regional and commuter aircraft and air taxis, and 2) accessible lavatories and narrowbody (i.e., aircraft with only one aisle) and smaller aircraft. The ANPRM also seeks comment on matters concerning additional accommodations for persons with hearing impairments that were mentioned in comments to the

docket on the Air Carrier Access Act rule.

The Department made specific proposals on the provision of boarding equipment (including use of ground wheelchairs, boarding chairs, ramps or mechanical devices) to assist passengers in enplaning and deplaning, and proposed a series of design and equipment requirements for accessible lavatories in the June 22, 1988 NPRM. That NPRM requested comment on whether mechanical lifts should be required, as opposed to other means (e.g., boarding chairs, handlifting) to assist disabled passengers on and off aircraft, and whether specific standards should be set for boarding chairs. With regard to the accessible lavatory proposals, comments were requested on: (1) What alternative arrangements which would best protect the privacy of on-board chair passengers in using such lavatories and (2) how best to implement accessible features in lavatories without removal of revenue seats.

The Department received few useful comments on these issues. Disability groups stated that nothing in the ACAA exempts any aircraft from providing accessible lavatories regardless of a revenue seat loss. The airline industry opposed any requirement for accessible lavatories on aircraft under 199 seats until it becomes technically feasible to reconfigure cabin interiors at reasonable cost without removing revenue seats.

Regarding boarding equipment, disability groups stated that mechanical lifts should be required; that technology exists to provide safe, dignified boarding of disabled persons, and that such assistance should be required on all size aircraft, including lifting persons by hand if necessary, and if requested. The airline industry proposed exempting small aircraft from boarding requirements, stating that lifting devices to fit small aircraft do not exist, and strong opposition to hand-carrying passengers.

These comments contained little, if any, new data on the costs, number of revenue seats requiring displacement, and other advantages and disadvantages of alternative approaches to meet accessible lavatory and boarding assistance requirements. The Department does not have sufficient data of its own, at the present time. In the absence of such information, it would be premature to promulgate final regulations. Consequently, the Department decided to publish this ANPRM to acquire additional information needed to further implement the Air Carrier Access Act (ACAA).

Establishing a requirement for accessibility is consistent with DOT policy; the questions we have relate to technical feasibility and cost. With adequate information not forthcoming in the response to the NPRM of June 1988, and in light of the commercial aviation system not having developed such facilities, the Department feels it has the responsibility to lead a collaborative effort to achieve consensus regarding these accessibility features so needed by those with severe mobility impairments. It intends to begin this process through this ANPRM. Subsequently, the Department would convene a conference concerning all of these topics. We would intend to engage aircraft designers, lift designers, representatives of the disability groups, and the carriers, in an effort to find solutions which could provide a substantive basis for rulemaking in these areas. If necessary to provide information or develop facilities, the Department would also commit resources to a research contract or project for these purposes.

The Department requests technical and economic information to complete its rule in the following areas:

A. Boarding Assistance on Small Airplanes—The situation is very unclear on the present state-of-the-art technology in lift devices and boarding chairs being used by operators of small aircraft (below 30 seats) to assist in boarding and deboarding persons with limited mobility. With respect to such devices, the Department seeks comments concerning their practicality, the safety of the disabled passengers and the crew trying to assist their boarding/deboarding, and the capital, operating and maintenance costs.

A long-standing but nevertheless urgent problem is the need for a device that will facilitate the boarding and deboarding of many regional and commuter aircraft by persons with mobility impairments. Almost all such aircraft board from the tarmac and passengers with severe mobility impairments sometimes are hand-carried up and down narrow stairs built into the aircraft door, which have weight limitations.

Hand-carrying a person up stairs is dangerous and often can cause physical stress and potential injury both to the passenger and to carrier or airport personnel. Further, many operators of small aircraft have few personnel at some terminals, necessitating special advance planning to accommodate persons with severe mobility limitations. For these reasons, the final ACAA rule does not require hand-carrying.

Code sharing arrangements between major carriers and regional and commuter carriers has been increasing the tendency for persons with severe disabilities to travel on small aircraft. Adding to the difficulties for small carriers are stringent schedules which often require short turn-around times. Some carriers hand carry passengers on and off planes because it is the quickest way to load them and avoid flight delays.

A related problem is the need for a "boarding chair", specifically designed to fit narrow cabin spaces, that can maneuver their narrow aisles. Carriers claim that two personnel are needed to lift passengers who are completely physically immobile from boarding chairs to a cabin seat.

The Department desires to assure the widespread availability of mechanical lift devices and the regional airline industry has made a concerted effort to have such devices developed. Eventually, DOT hopes to be able to facilitate their use through rulemaking, but it cannot do so yet without definitive data on the availability and workability of existing devices. If a suitable device does not exist, the Department will encourage the development of such devices capable of lifting passengers from ground level to the aircraft door and visa versa. These vertical conveyance devices should be developed and put into service at the earliest possible date.

In 1987, \$250,000 was provided by the Congress to the FAA to foster the development of a lifting device that would provide improved access by handicapped persons to commercial aircraft. The FAA formed a working group consisting of the Paralyzed Veterans of America, the Regional Airline Association, and the American Association of Airport Executives to consider how best to utilize these funds. Based on their deliberations, the FAA has issued a solicitation to develop a boarding chair to fit cabin dimensions of ten different small planes.

Concurrently, this working group is considering the alternatives regarding vertical conveyance devices. This work has not advanced to the point where there could be certainty in imposing a particular set of requirements through rulemaking.

The Department also is aware that Mid-Canada Equipment Sales, Ltd., has built a prototype lift device which has been tested successfully with a DeHavilland Dash 8 aircraft. Mid-Canada has completed five devices that will be evaluated by five regional carriers. The present design, however, is

not compatible with at least two models of aircraft currently in service.

From the comments received in response to the NPRM, the Department is not aware of any other efforts to build a device intended to assist persons with mobility limitations to board and deboard small aircraft.

With respect to lifting devices the Department seeks comments concerning:

- The names and addresses of manufacturers;
- The names and addresses of carriers who have or are currently using such devices;
- Types of aircraft served;
- Dimensions;
- Principle of operation;
- Transportability;
- Maneuverability;
- Stability;
- Source of power (e.g., on board, electrical, etc.);
- Costs of acquisition and operation;
- General characteristics such as lift platforms, controls and safety features; and
- Operational experience.

B. Accessible Lavatories—The ability to provide lavatory access varies widely with regard to individual aircraft interior cabin designs. A rule that lavatories must be fully or partially accessible could require substantial loss of revenue seats due to the present constraints in the configurations of some aircraft cabins. While the final rule implementing the ACAA will require such lavatories for wide-body airplanes, on the premise that most are of sufficient size that such special arrangements can be accommodated, narrowbody (e.g., 727, 737, DC-9 and smaller airplanes) would require major design changes in the lavatory and adjacent area, and in some cases, galley relocation, to provide reasonable access and privacy. The Department seeks comment concerning lavatory design possibilities and associated costs on all such aircraft models which would allow accessible lavatory objectives to be met without loss of seats, or minimal loss of seats, and would not jeopardize safety.

The NPRM for the ACAA final rule addressed accessibility of aircraft lavatories at two levels. The fully accessible level, proposed for larger aircraft, considered a lavatory with specific accessible hardware features and large enough to permit a person using an on-board chair to enter, maneuver, transfer and leave. A second partially accessible level lavatory, with the same accessible hardware was proposed for smaller planes. Such lavatories would not require full

entrance by passengers using the on-board wheel chair, nor would the means of privacy have to be equivalent to that of other persons.

The June 1988 NPRM sought comment on how the disabled user's privacy can best be protected. What features could be implemented at reasonable cost? Could a curtain or screen arrangement provide adequate privacy? Could a door or privacy curtain be installed without causing seats to be removed, especially in smaller aircraft? Could there be space to allow a wheelchair to maneuver at the door and allow a person to enter the lavatory without causing the removal of seats, especially on smaller aircraft? What lead time would be needed to allow for the technical development of an adequate facility? If a facility could not be developed to meet these requirements would a lesser degree of privacy be acceptable (e.g., a privacy curtain over the door)?

Based on the comments received, there was little agreement on what degree of accessibility was possible on narrowbody planes. The Department has determined that this is a complex question tied more to specific aircraft type than to aircraft size categories which could not be answered with sufficient certainty for rulemaking. What is needed is additional technical and economic information focusing on these issues from those who design the interiors of airplanes, the disabled individuals who would use these facilities, and the air carriers to whom this will be one more added feature to be included as part of their service to the disabled community a broad segment of the public.

Narrowbody Aircraft (100-199 seats)—Clearly it is possible to require a fully or partially accessible lavatory in narrowbody planes but only at the high costs of roughly 3 to 6 lost revenue seats and considerable inconvenience for other passengers. The Department estimates the cost for such requirements would range from \$80 to \$200 million annually by the year 2000.

Some have suggested an accessible lavatory could be provided on narrowbody aircraft by combining two adjacent lavatories or 2 cross-aisle lavatories. This raises questions as to what inconvenience would result to other passengers, with aisles and lavatories blocked off, and/or aisles occupied by beverage carts. Passenger traffic through the galley areas and the ability of the flight crew to perform necessary functions in the galley are also concerns. Taking away galley space to free space for accessible lavatories also presents service problems for other

passengers. Thus, there remain major questions as to what such arrangements would do to traffic flows through the fuselage, and how such altered traffic patterns would impair safety and interfere with flight crew functions.

Small Aircraft (10-100 seats)—The airline industry, the Boeing Company and General Aviation Manufacturers Association (GAMA) representatives assessed the existing cabin space and lavatory space in current 60-100 seat aircraft as being very tight: no room to disrobe, no room for an attendant, and the toilet is opposite the door in most cases requiring a person in an on-board chair to execute a 180 degree turn to transfer to the toilet seat. In their opinion, there is no available room in some present aircraft configurations to create a privacy area outside the lavatory without the possible removal of one to three revenue seat per aircraft.

GAMA was not firm on the seat loss estimate pointing out that the problem will differ by manufacturer, depending on the aircraft configuration. Their representative speculated on a number of possible ways to meet the NPRM requirements which might avoid loss of seats. For example, most lavatories on such aircraft are located at the farthest point in the rear cabin where people can stand up, and it might be possible in some configurations to hook up a curtain across the aisle in front of the lavatory and create a privacy area, providing a galley is not located in the rear.

Newly manufactured aircraft of current certificated type designs with both the lavatory and galley located in the rear cabin (more than 50% of aircraft have this configuration) might be redesigned to create a privacy area by relocating the galley up front in the cabin where a coat closet presently exists in most models. GAMA cited many potential problems associated with this option e.g., the galley may not be able to fit in the coat closet or other space up front in the cabin without seat removal; many galleys are built directly into the aircraft and manufacturers must assure that the new galley would withstand bearing load in a crash situation. A very rough order of magnitude estimate of the average cost of galley relocation is \$75,000 to \$100,000 per lavatory. The cost of redesigning the BAE 146 model aircraft to relocate the galley in the front of the cabin was estimated at roughly \$200,000 total cost per aircraft. GAMA does not foresee a reduction in these costs due to future economies of scale, because the total number of aircraft in this class to be replaced annually is too small to justify amortization of the costs. Thus, galley

relocation would be expensive; probably as expensive as removing seats to create a privacy area.

The ATA cited alternatives for accessible lavatories including reconfiguration or removal of a galley which would entail extreme expense and constitute a clear undue financial burden.

For the purposes of this ANPRM, the Department solicits comment on the following questions:

- For the various cabin configurations of different aircraft types (under 200 seats), what physical layouts are possible to offer passengers at least visual privacy, and the ability to maneuver in the lavatories?

- What physical layouts are possible which would provide disabled passengers full maneuvering room using the on-board chair inside the lavatory? What layouts would provide partial accessibility, meaning a privacy area/curtain outside the lavatory?

- Which designs can be accomplished without the loss of revenue seats? Which design can be accomplished with only a minimal loss of revenue seats?

- How would such arrangements impact on the passenger traffic within the cabin, flight attendant duties in galleys, and the opportunity for passengers to use other lavatories?

- How might such arrangements impair safety?

- In small planes, where can the aisle chairs be stored?

- Down to what size airplanes and what types can such requirements reasonably be imposed?

- Should the requirements for accessible lavatories be made a function of stage length (i.e., the length of the flight which the aircraft performs) instead of airplane size, and if so for what stage lengths should such requirements be imposed?

C. Additional Accommodations for Hearing Impaired Persons—In the comments to the ACAA rulemaking docket, commenters asked for some additional accommodations for persons with hearing impairments. Because the Department is unsure of the technical or economic feasibility of these suggestions, we felt it was not appropriate to dispose of them in the final rule.

The first was for captioning of in-flight movies. Many hearing impaired persons could not fully enjoy in-flight movies because they could not hear the sound track on the headphones. Captioning movies would alleviate this problem. The Department seeks comment on the cost and feasibility of captioning movies. The Department also seeks

comment on the indirect economic impact of doing so (i.e., if movies were captioned, many persons in addition to those with hearing impairments would be able to more fully enjoy movies without renting a headset, which could adversely affect headset revenue).

The second suggestion was for providing telecommunications devices for the deaf (TDDs) in on-board phone banks. This service is provided on some aircraft. Where it is, should there be TDD as well as voice phone service available? What cost and feasibility considerations are involved? What degree of usage of TDD service is it reasonable to expect?

Regulatory Process Matters

The discussion in this notice is not designed to resolve matters of policy, but rather to determine how best to overcome technical and economic limitations constraining policy. This calls for a somewhat innovative procedure, different from standard rulemaking. Therefore, through this ANPRM, the Department is requesting comments on the above issues from all interested parties: disability groups, lift designers and manufacturers, airplane designers and manufacturers and air carriers within 90 days. The comments will be reviewed and, if necessary, the Department will publish summaries of the various viewpoints.

The Department anticipates a conference of these same interest groups to bring designers and users from the disabled community together for an exchange of information. If necessary, the Department would also engage a contractor to study one or more of the issues. After a review of the information we obtain, the Department will make a decision on taking additional regulatory action covering the areas of inquiry.

This ANPRM is not a major rule under Executive Order 12291. It is a significant rule under the Department's Regulatory Policies and Procedures. Because the document requests comments on feasibility and cost issues about which the Department currently has little information, the Department is not preparing a regulatory evaluation at this time. An evaluation would be prepared with respect to any future rulemaking resulting from this ANPRM. There are not any Federalism implications to this ANPRM, and a Federalism Assessment consequently has not been prepared. The Department will determine, at a later time, whether there are any small entity impacts for whatever proposals derive from this notice. A Regulatory Flexibility Analysis would be premature at this point.

Issued this 28th day of February 1990, at Washington, DC.

Samuel K. Skinner,

Secretary of Transportation.

[FR Doc. 90-4995 Filed 3-2-90; 8:45 am]

BILLING CODE 4910-62-M

49 CFR Part 27

[Docket No. 46813; Notice 90-12]

RIN 2105-AB62

Nondiscrimination on the Basis of Handicap in Federally-Assisted Programs

AGENCY: Office of the Secretary, DOT.
ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The Department is proposing to amend the portion of its rule to implement section 504 of the Rehabilitation Act of 1973, as amended, concerning federally-assisted airport facilities 49 CFR (27.71). The proposed amendment would harmonize the rule with a parallel provision in 14 CFR part 382, which implements the Air Carrier Access Act of 1986. The proposed rule would also specifically apply the Department's section 504 rule to air carriers receiving Federal financial assistance under the Essential Air Service (EAS) program.

DATES: Comments should be received by June 4, 1990. Late-filed comments will be considered to the extent practicable.

ADDRESSES: Comments should be sent to Docket Clerk, Docket No. 46813, Department of Transportation, 400 7th Street, SW., Washington, DC 20590, Room 4107. For the convenience of persons who will be reviewing the docket, it is requested that commenters provide duplicate copies of their comments. Comments will be available for inspection at this address Monday through Friday from 9 a.m. through 5:30 p.m. Commenters who wish the receipt of their comments to be acknowledged should include a stamped, self-addressed postcard with their comments. The docket clerk will date-stamp the postcard and mail it to the commenter.

FOR FURTHER INFORMATION CONTACT: Robert C. Ashby, Deputy Assistant General Counsel for Regulation and Enforcement, Department of Transportation, 400 7th St., SW., room 10424, Washington, DC 20590. Telephone 202-366-9306 (voice); 202-755-7687 (TDD). A taped copy of the NPRM is available on request.

SUPPLEMENTARY INFORMATION:

Background

This proposed rule concerns accessibility of aviation facilities to persons with disabilities. The proposal would implement section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap in programs receiving Federal financial assistance, and is related to requirements under the Air Carrier Access Act of 1986 (ACAA), which prohibits discrimination on the basis of handicap by air carriers providing air transportation.

The Department's section 504 rule, first published in 1979, included accessibility requirements for Federally-assisted airports. The Department's rule to implement the ACAA (14 CFR part 382), published elsewhere in today's *Federal Register*, includes a provision (14 CFR 382.23) requiring air carriers to ensure that portions of terminals under their control meet accessibility standards.

The Department had been concerned, for some time, that 49 CFR 27.71 had assigned to airport operators accessibility responsibilities for some facilities or services often controlled by air carriers. The new 14 CFR 382.23, together with this proposed revision to 49 CFR 27.71, is intended to ensure that the proper party, at each airport, has responsibility for ensuring that given facilities and services meet accessibility requirements.

Proposed Revision to 49 CFR 27.71

The proposed revision to 49 CFR 27.71 is virtually identical to 14 CFR 382.23. It is also very similar to the existing 49 CFR 27.71 in most respects. There are, however, a number of changes from the existing rule on which the Department seeks comment. First, the Uniform Federal Accessibility Standards (UFAS) would be the basic accessibility standard for airports. Requirements spelled out in the current 49 CFR 27.71 that are not specifically mentioned in the proposed revision were deleted because they are covered by UFAS. Second, accessibility requirements for terminal transportation systems (e.g., inter-terminal vans or buses, electric carts used for transportation within terminals, moving sidewalks) would be added.

Third, there would be a provision that calls on airport operators to settle, in their contracts or leases with carriers, issues of who is responsible for compliance with accessibility requirements. Fourth, there would be a new definition of "air carrier airport," which would result in applying

accessibility standards only to those airports with scheduled airline service that enplane at least 2,500 passengers per year. This definition would replace the existing part 27 definition of the term, which was based on provisions of FAA's Airport Improvement Program which have since been changed.

For unusual circumstances not provided for in the rule, which would make compliance impracticable with a given provision of the regulation, recipients would have access to the exemption procedures of 49 CFR 5.11. For example, a case in which an exemption might be appropriate would be one in which the recipient would otherwise have to make extensive modifications to a terminal scheduled to be torn down in the near future when a new, accessible terminal was opened. An exemption in such a circumstance could be conditioned, for example, on other (e.g., operational) accommodations being made in the meantime.

It should be pointed out that airport operators have been subject to very similar rules since 1979, and all terminals that receive Federal financial assistance were to have been made accessible by 1982 under the 1979 requirements. Consequently, it is unlikely that many airport operators will have to make significant modifications in their facilities, unless, for some reason, they had failed to comply with the existing requirements.

The one new requirement being proposed concerns terminal transportation systems, which the proposed rule would require to be made accessible when viewed as a whole. (By "when viewed as a whole," the Department means, consistent with normal practice under section 504, that not every part of a facility or every vehicle need necessarily be accessible, if the overall facility and service are accessible to and usable by individuals with handicaps.) The Department seeks comment on any cost or feasibility problems that airport operators or others see in this provision. For example, is vehicle retrofit likely to be necessary in order to meet this requirement within the three year time frame of the proposal? If a longer time were permitted (e.g., five years), could vehicle accessibility be achieved without retrofit? Are there alternatives to vehicle accessibility that would suffice? What are the likely costs of various alternatives? What technical problems, if any, are there with making in-terminal systems (e.g., electric carts, moving sidewalks) accessible to handicapped passengers?

The proposed rule would cover "terminal facilities and services,"