Will publish in the Federal Register in Part 3 on 10/27/04

[4910-13]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Parts 25 and 121

[Docket No. FAA-2004-19412, Amendment Nos. 25-116 and 121-306]

RIN 2120-AF77

Miscellaneous Cabin Safety Changes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action amends the airworthiness standards for transport category airplanes relating to flight attendant assist spaces and handles, door hold-open features, outside viewing means, interior compartment doors, and portable oxygen equipment. It also amends the operating requirements for domestic, flag, and supplemental operations. These amendments are part of the Agency's continuing effort to upgrade the regulations to improve the overall level of safety in areas where the state-of-the-art and good design practice have indicated that such upgrades are warranted. One of the changes also responds to a National Transportation Safety Board recommendation. These amendments result in both new type design regulations as well as retrofit requirements. In addition, several editorial changes were adopted.

EFFECTIVE DATE: [insert a date 30 days after the date of publication in the Federal Register]

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SUPPLEMENTARY INFORMATION:

Availability of Rulemaking Documents

(Note: The FAA transitioned to the new Department of Transportation's Docket Management System (DMS) during the course of this rulemaking. At earlier stages of the rulemaking, the docket number was "28637." Under the new DMS, the docket number is FAA-2003- .)

You can get an electronic copy using the Internet by:

(1) Searching the DOTs electronic DMS web page (http://dms.dot.gov/search);

(2) Visiting the Office of Rulemaking's web page at **http://faa.gov/avr/arm/index.cfm**; or

(3) Assessing the Government Printing Office's web page at **http://www.access.gpo.gov/su_docs/aces/aces140.html**.

You can also get a copy by submitting a request to the Federal Aviation Administration, Office of Rulemaking, ARM-1, 800 Independence Avenue S.W., Washington, D.C. 20591, or by calling (202) 267-9680. Make sure to identify the amendment number or docket number of this rulemaking.

Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the

comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act statement in the Federal Register publication on April 11, 2000 (Volume 65, Number 70, Pages 19477-78) or you may visit http://dms.dot.gov.

Small Business Regulatory Enforcement Fairness Act

The Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996 requires FAA to comply with small entity requests for information or advice about compliance with statutes and regulations within its jurisdiction. Therefore, any small entity that has a question regarding this document may contact their local FAA official, or the person listed under FOR FURTHER INFORMATION CONTACT. You can find out more about SBREFA on the Internet at our site, http://www.faa.gov/avr/arm/sbrefa.htm. For more information on SBREFA, e-mail us at 9-AWA-SBREFA@faa.gov.

Background

These amendments are based on notice of proposed rulemaking (NPRM), Notice No. 96-9, which was published in the Federal Register on July 24, 1996 (61 FR 38552). The notice proposed to upgrade several cabin safety requirements, relating to flight attendant assist spaces and handles, door hold-open features, outside viewing means, interior compartment doors, and portable oxygen equipment. These proposals were intended to take advantage of the state-of-the-art, as well as common design practice. One of the proposals responds to a National Transportation Safety Board (NTSB) recommendation.

For some time, the FAA has worked to achieve harmonization on its rulemaking with the Joint Aviation Authorities (JAA) (recently changed to the European Aviation

Safety Agency) and other airworthiness authorities through the Aviation Rulemaking Advisory Committee (ARAC) and its harmonization working groups. Although this rulemaking project has not been the subject of a harmonization working group activity, because it was initiated prior to the time harmonization became a high priority with the FAA and JAA, comments received from the JAA members were addressed in this final rule.

As indicated in Notice No. 96-9, the FAA amended 14 Code of Federal Regulations (CFR) part 25 pertaining to cabin safety and crashworthiness following accidents experienced in the 1960's (Amendment No. 25-15, 32 FR 13255, September 20, 1967; Amendment No. 25-17, 33 FR 9065, June 20, 1968; Amendment No. 25-20, 34 FR 5543, March 22, 1969; and Amendment No. 25-32, 37 FR 3964, February 15, 1972). These amendments were designed to correct certain deficiencies identified during the accident investigations, and, in many cases, were retrofit on airplanes already in service. More recent amendments (Amendment No. 25-59, 49 FR 43188, October 26, 1984; Amendment No. 25-64, 53 FR 17640, May 17, 1988; and Amendment No. 25-76, 57 FR 19220, May 4, 1992) pertaining to cabin safety, such as seat cushion flammability, dynamic testing standards for seats and improved access to Type III emergency exits, have resulted from specific research and development. These amendments are deemed necessary and appropriate by the FAA considering the current state-of-the-art and existing design practice. Although nearly all existing installations already comply, these amendments will ensure that any others comply as well.

Discussion of Amendment to Parts 25 and 121

Flight Attendant Assist Space

Section 25.813 requires that each non-overwing exit equipped with an assist means have adequate space next to the exit for a flight attendant to stand and assist occupants while evacuating. The size of this "assist space" is not specified in the regulations. Guidance material in Civil Aeronautics Manual (CAM) 4b.362-6(b) states that the assist space should be a 12 X 20-inch rectangle on the floor and be useable. A rectangle of this size is generally recognized as the minimum size acceptable for compliance with § 25.813 or its predecessor § 4b.362(g) of the Civil Air Regulations (CAR). Deviations have been permitted if the efficacy of the assist space is demonstrated.

Demonstrations of a smaller or irregular shaped assist space usually take place in controlled evacuation tests conducted under conditions similar to those specified in Appendix J to part 25 for emergency evacuation demonstrations. While these demonstrations have value, they do not account for the potentially adverse conditions likely to be encountered in service. Notice No. 96-9 proposed a minimum size for assist spaces to provide more standardized application of the requirement and give additional margins of safety under adverse conditions which may be encountered in service.

Service experience, both in tests and actual incidents, indicates that the assist space recommended in CAM 4b.362-6(b) is adequate; therefore, the NPRM proposed that the assist space be a minimum of 12 X 20-inches rectangle on the floor with the 12-inch dimension essentially parallel to the exit opening. The location of the assist space relative to the exit opening is not specified since the best location may vary from one

installation to another. In any case, the assist space should be located to provide the maximum benefit to evacuation. The minimum dimensions specified assumed that a flight attendant would be able to stand upright. Installations which do not provide adequate headroom to enable a 95th percentile male to stand upright would probably need an increase in the fore and aft dimension of the assist space to provide the same level of efficacy as a full height installation. (Information on anthropometry can be found in NASA reference publication 1024, Anthropometric Source Book Volume I, Anthropometry for Designers.) The amount of increase required in these instances would be dependent on the details of the installation and would not be specified in the regulations. Since issuing the NPRM, the FAA has seen improved standardization in assist space configurations and dimensions during certification. Since the NPRM contained several explanatory statements on the purpose of the assist space, it is possible that this information contributed to reduced standardization problems. Given that one of the main objectives of the proposal was to improve standardization and that a prescriptive requirement is generally not preferred where alternatives are possible, the FAA is withdrawing this portion of the proposal, and retaining the requirement that the assist space be a rectangle with dimensions that are "adequate." The current guidance in Advisory Circular 25-17 regarding the acceptability of a 12 X 20-inch rectangle will be retained. Recent experience has shown that this approach is acceptable and that standardization can be achieved, while allowing some flexibility in specific demonstrations of compliance.

The assist space requirement applies to all larger exit types (i.e., Types I, II, A, B and C), regardless of whether they are over the wing. Except for Type A exits, assist

spaces have not been required for exits over the wing. The need for an assist space over the wing is dependent primarily on the presence of an assist means where the rate of egress is critical. Future airplane designs may make the installation of overwing floor level (other than Type A) exits an attractive option and they are accounted for here. In addition, current regulations only require an assist space for the larger exits when there is also an assist means required. For airplanes of relatively small passenger capacity, service experience indicates that this is a reasonable standard. However, for airplanes with a larger passenger capacity, an assist space should be required, whether or not an assist means is required. Therefore, this amendment also requires an assist space at all Type II or larger exits on airplanes with a passenger capacity of 80 or greater. This includes tailcone exits that are qualified for 25 additional passenger seats under the provisions of § 25.807(g)(9)(ii) and are required by § 25.810(a) to have such assist means, since these can become primary exits under certain evacuation scenarios and will require the assistance of a flight attendant to perform at their potential. This amendment also corrects a long-standing editorial error in part 121, that states that assist spaces are required at all Type I or II exits, regardless of whether or not an assist means is installed and regardless of passenger capacity. This amendment adds the words "equipped with an assist means" to the existing text in § 121.310(f)(2), to make it clear that an assist space is only required in certain cases.

Conversely, the regulations previously required an assist space for non-floor level, non-overwing exits that incorporate an assist means. There is at present one airplane with exits that fall into this category. Given the design difficulties presented by such a design, the prospects for such exits in the future do not seem likely. Furthermore the

appropriateness of the current standards for such exits appears questionable (the one example currently in existence was approved by special conditions). This provision in the regulations is removed by this amendment. In the unlikely event a design of this nature were ever proposed, the FAA would develop criteria appropriate for that design in the form of special conditions.

Most existing installations currently comply with this requirement, however, for the few that do not, the economic penalty for retrofit compliance would be quite high. It is also difficult to quantify the benefit that might be gained from reconfiguring airplanes already manufactured and placed in service to comply with this amendment; therefore, no retrofit action was proposed. For newly manufactured airplanes, § 121.310(f)(2) is amended to require that the assist spaces of all airplanes manufactured 4 years after the effective date of this amendment comply with these criteria. As is discussed later, in the compliance time section, the compliance date was changed from 2 years to 4 years based on comments received.

Flight Attendant Assist Handles

One common design feature of large transport airplanes has been assist handles to enable flight attendants to steady themselves while assisting passengers in evacuating. The assist handle can be crucial in permitting the flight attendant to perform his or her duties efficiently. This, in turn, can have a direct bearing on the success of an emergency evacuation. Prior to this amendment, there was no requirement for assist handles although most, if not all, installations incorporate them. Although an assist handle may not always be necessary due to the unpredictable nature of an emergency evacuation, it is a valuable tool that should be available to the flight attendant when it is needed. In

addition, the assist handle is an integral part of flight attendant training. The addition of the requirement in part 25 would eliminate incompatibilities between the type design and operational requirements.

In some cases a handle designed to provide the flight attendant with leverage when opening, or more commonly, closing passenger and service doors is installed. Often, this handle is not located at the designated assist space. Service experience has shown that the presence of the handle at another location can mislead a flight attendant into standing in a location that could obstruct the required passageway. The FAA has addressed such installations specifically. Service experience also indicates that there is a need for assist handles to enable flight attendants to steady themselves while actuating the manual inflation handle on escape slides. The manual handle is located on the doorsill, and essentially requires the attendant to straddle the door opening when pulling the handle. The attendant is quite vulnerable to the possibility of being pushed out of the exit. The FAA expects that it will be possible for one handle to serve both required purposes (i.e., emergency evacuation and assist means activation) at a given location; however, two different handles might be needed at the same exit in some instances. The assist handle(s) should be usable by the range of flight attendants encompassing the 5th percentile female to the 95th percentile male.

This amendment requires that assist handles be installed at the designated assist space for all floor level exits that require an assist space. In addition, a companion change to § 121.310(l) is applicable to newly manufactured airplanes entering the fleet, and requires a retrofit of the existing in-service fleet. A 3-year compliance period is adopted.

Outside Viewing Means

Emergency evacuations are frequently necessary either due to, or in combination with, a hazard such as a fire outside the airplane. Because the hazard may pose an immediate threat to the occupants of the airplane, it is often necessary to avoid opening certain otherwise useable emergency exits in order to prevent injury to the evacuees. In this context, a viewing window or other means of assessing the outside conditions and determining whether an exit should be opened is extremely valuable. A viewing window is commonly provided in most exits in service; however, it has not been required, and some exits in service do not incorporate one. This amendment requires a means (for example, either a window in the exit itself, or in an adjacent frame bay) that provides a view of the ground area where evacuees will make contact upon leaving the airplane in an emergency evacuation.

The means should provide visibility taking into account all conditions of landing gear collapse and, since evacuations can take place at night, outside illumination conditions. The issue of exterior illumination was not explicitly discussed in the NPRM, nor were any comments received on this subject. The fact that there were no comments may indicate that it is generally understood that the viewing means needs to be available in conditions of darkness. However, in the interests of clarity, the rule language is amended to include the phrase "under all lighting conditions." In the context of devices intended to be used in an emergency, the viewing means would clearly have limited utility if it were only available in the daylight. Exterior emergency lighting is an explicit requirement of § 25.812 to address evacuation in darkness. The FAA therefore regards

this clarification as a nonsubstantive change that will help standardize application of the rule.

Details such as size and prismatic characteristics of the viewing means are not specified. The FAA considers that sufficient design latitude should be available to permit several acceptable concepts. The viewing means would be required to be available to a person preparing to open an exit. Thus, if a window were in an adjacent frame bay, there could not be a partition or divider between the exit and the window to meet the intent of the requirement. For some exits, two windows might be installed at each exit in order to provide sufficient viewing coverage. In terms of exterior illumination, there is no specific minimum illumination level requirement, although the emergency lighting system could be used to provide visibility of the area of ground contact, as well as any other interior or exterior lights that would be available in an emergency.

The viewing requirement applies only to airplanes for which an application for type certificate is made after the effective date. Due to the technical difficulties and resultant cost of modifying existing airplanes, no retrofit requirement is included.

Exit Hold-Open Feature

Also important is the capability of an exit to remain open during an evacuation without threat of premature closing. Adverse attitude, wind or contact by evacuating passengers could cause an unsecured door to close during an evacuation, and jeopardize the safety of subsequent passengers. Most passenger emergency exits currently incorporate a feature, which holds the door open and requires a positive action to disengage. This amendment requires a means to prevent an emergency exit from inadvertently closing once it has been opened in an emergency. The means must

automatically engage when the exit is opened and require positive action to disengage. As discussed in the notice, a removable hatch would be considered to comply, by definition, as would exits hinged on the bottom. This latter type of exit is covered further in the Discussion of Comments section. This requirement amends § 25.809 for new type certificates and creates a new § 121.310(l), which would require that transport category airplanes (the applicability to transport category airplanes was inadvertently omitted in the notice and, in light of other, subsequent changes to part 121, is restored in the final rule to make the intent clear) in service after a date 2 years after the effective date of the amendment comply with the provisions of the part 25 requirement, and redesignate existing paragraph (l) as a new paragraph (n).

Interior Doors

Following accident experience in the 1960's the FAA amended part 25, in Amendment 25-15, to prohibit the installation of doors "between passenger compartments." At the time of the amendment, it was common practice to divide the first class and tourist class cabins with a solid door. It was determined in the course of accident investigations that this door could be detrimental in evacuation of passengers, who tended not to recognize that there was an exit beyond the door, even if it were the closest available. The resulting regulatory change was geared specifically at preventing this occurrence. However, the regulation was worded such that doors may be installed between passengers and exits provided there are not passengers on both sides of the door. For example, a door could be installed across the main passenger aisle at the end of a cabin. The regulations only required that the door be open for takeoff and landing. It is now considered undesirable to permit the installation of a door between any passenger

and an exit. Should such a door (either through omission or mechanical failure) become jammed in the event of an emergency evacuation, persons could be prevented or delayed in evacuating which could result in fatalities or injuries that would not otherwise have occurred. The hazards associated with a jammed door are still present whether or not passengers are on both sides of the door, and the recognition factor has not been mitigated. Either could result in the same consequences--failure of some passengers to evacuate the airplane. This amendment prohibits the installation of any door between any passenger and any passenger emergency exit. This would include prohibiting doors that close off galley areas that serve as passageways or crossaisles, doors across emergency exits (frequently used on "VIP" airplanes), and doors into rooms that are occupiable for takeoff and landing. This would also include prohibiting a door across one of the aisles on a multi-aisle airplane, since this closes off the most direct route to an exit for some of the passengers.

In the past there has been considerable discussion regarding what constituted a "door." One common proposal has been to install a fabric diaphragm bounded by a metal frame, which is movable, usually much like a pocket door. This type of installation has been accepted provided the frame provides no more resistance to a person passing through it than a normal curtain tie back. Such installations do, however, create the same recognition problem as do "solid" doors and would no longer be acceptable.

The change to § 25.813(e) applies to all transport category airplanes for which an application for type certificate is made after the effective date regardless of whether they are used in air carrier service. Section 25.813(e) prohibits doors between passengers and emergency exits whereas § 25.813(f) now deals only with doors between crewmembers

(outside the flightdeck) and emergency exits and is amended accordingly. Language in paragraph (f) requiring the door latching means to withstand the inertia loads of § 25.561(b) was inadvertently left out of the notice. Since this was purely an editorial error, and does not increase the burden of compliance beyond what it is currently, the language is restored in the final rule. In addition, § 121.310(f)(6) would make the new standards applicable to all other transport category airplanes, operated under that part, 2 years after the effective date of this amendment.

These requirements are not required to be retrofit to non air-carrier operations, e.g., private use airplanes where the number of passengers involved is much smaller and there has been no demonstrated unsafe condition. For reasons discussed below, the requirement as it relates to other than commercial operations is being reconsidered, and may ultimately result in additional rulemaking.

Portable Oxygen Equipment

Finally, this amendment requires that oxygen masks intended for portable oxygen equipment be connected to that equipment. This amendment follows NTSB Safety Recommendation No. A-90-54. During the decompression experienced in the February 1989 United Airlines Flight 811 accident, the NTSB determined that flight attendants had difficulty in using the portable oxygen bottles. These bottles are intended to enable them to move about the cabin, with an adequate oxygen supply, after decompression. The oxygen masks were not connected to the dispensing terminal of the oxygen bottle, thus requiring an additional action by the flight attendant before the unit was useable. The NTSB recommended that all such masks be connected to the oxygen supply, to minimize the time and dexterity necessary for flight attendants to don and use the portable oxygen.

The FAA agrees with this recommendation, and therefore amends § 25.1447(c)(4) accordingly. In addition, a companion change is made to § 121.333(d), with a 1-year compliance time.

A 1-year compliance time is chosen in this case because the modification required is a simple connection of the oxygen mask to the supply bottle. This can be done on an overnight visit, or any short interval maintenance visit. One year is considered more than enough time to achieve compliance.

Compliance Time

The following table summarizes the part 121 compliance times.

Part 121 Compliance Requirements		
Subject	***New Aircraft***	***Existing Aircraft***
Assist space at Type II or larger exits on airplanes with passenger capacity of 80 or greater	Airplanes manufactured after [INSERT DATE 4 YEARS AFTER EFFECTIVE DATE OF THIS FINAL RULE]	Not required
Assist handle where assist space is required	Airplanes manufactured after [INSERT DATE 3 YEARS AFTER EFFECTIVE OF THIS FINAL RULE]	[INSERT DATE 3 YEARS AFTER EFFECTIVE DATE THIS FINAL RULE]
Outside viewing means at all exits	All type certificate applications made after [INSERT EFFECTIVE DATE OF THIS FINAL RULE]	Not required
Exit hold open feature	Airplanes manufactured after [INSERT DATE 3 YEARS AFTER EFFECTIVE DATE OF THIS FINAL RULE]	Not required
Prohibition of interior doors (between passengers and emergency exits)	Airplanes manufactured after [INSERT DATE 2 YEARS AFTER EFFECTIVE DATE OF THIS FINAL RULE]	Not required
Portable oxygen equipment (connection of oxygen masks)	Airplanes manufactured after [INSERT DATE 1 YEAR AFTER EFFECTIVE DATE OF THIS FINAL RULE]	[INSERT DATE 1 YEAR AFTER EFFECTIVE DATE OF THIS FINAL RULE]

Editorial Changes

The ambiguity in the provisions of § 25.853(f) concerning ashtrays has been removed by requiring that all seated occupants in designated smoking areas are provided with ashtrays. Since designated smoking areas can vary from flight to flight, an adequate

number of ashtrays would need to be installed at delivery to account for the largest smoking section anticipated by the airline. Alternatively, the size of the smoking section would be limited by the number and location of the ashtrays.

Prior to this amendment, the introductory phrase in § 25.855 stated: "For each cargo and baggage compartment not occupied by crew or passengers, the following apply." It has been brought to the attention of the FAA that this phrase may also cause confusion. By definition, some compartments must be accessible to crewmembers to fight fires in flight; therefore, the exception made by the introductory phrase cannot (and has not been interpreted to) apply to compartments that are only occupied occasionally by crew or passengers. Furthermore, crew and passengers are not permitted to be seated or stationed on a full-time basis in cargo or baggage compartments. Since the exception does not apply to occasional occupancy and since crew and passengers do not occupy cargo or baggage compartments in flight on a full-time basis, the exception made in the phrase has no applicability. Using the present wording of the introductory phrase, it was alleged, in at least one instance, that the standards of § 25.855 did not apply because the cockpit was part of the cargo or baggage compartment. That allegation was unfounded because, regardless of the degree or method of separation, the cockpit can not be considered part of a cargo or baggage compartment. Nevertheless, it does show that the phrase can easily be misinterpreted. Since the exception has no applicability and may cause confusion, the introductory phrase is reworded to simply state, "For each cargo or baggage compartment, the following apply." This is a nonsubstantive change that places no additional burden on any person.

Finally, as a result of the extensive changes to part 25 adopted in Amendment 25-72, many referenced sections were changed. Some of the previous references were inadvertently retained, however, and are no longer correct. Therefore, the FAA has corrected these references to correspond to the current structure of part 25. These changes are purely editorial in nature and affect §§ 25.812(g)(1)(ii), 25.812(g)(2), 25.812(h), ~~25.819(f)~~ and 25.1411(c).

Discussion of Comments

Comments were received from 19 parties, including foreign and domestic airplane manufacturers, labor associations, foreign and domestic operators, foreign regulatory authorities, and the NTSB. Each proposed change received comments. Five commenters support the proposals as written. Four other commenters agree with specific aspects of the proposal, and did not comment on others. Ten commenters disagree with at least parts of the proposal, with one commenter opposing any changes to part 121.

Flight Attendant Assist Space

Five commenters support the proposal and five commenters oppose all or parts of it.

Comment: One commenter suggests additional rulemaking to require an assist space when the sill height of the exit is greater than 3 feet (versus the current requirement for an assist space when the exit sill height is 6 feet above the ground and requires an assist means). The commenter feels that an assist space is also necessary for exit sill heights between 3 and 6 feet.

Response: The FAA has not considered another sill height when specifying the requirement for an assist space but, rather, the number of passengers on board. In this

case, an assist space is required for airplanes of more than 80 passengers, regardless of the sill height. For passenger capacities of 80 or less, the ratios of passengers to exits are decreased; the FAA believes that the presence of an assist means should govern the requirement for an assist space in smaller airplanes. No change is made to the final rule.

Comment: Another commenter, representing certain domestic airlines, while not opposed to the assist space requirement, is concerned about the impact it might have. The commenter contends that any deficiencies would be uncovered by evacuation demonstrations. In addition, the commenter contends that a detailed analysis of the potential impact has not been made.

Response: As discussed in the notice, the FAA does not agree that typical evacuation demonstrations would necessarily reveal deficiencies in assist space dimensions. With respect to the impact of the requirement, as discussed later, this is not anticipated to be significant, given that there is no retrofit application.

Comment: A commenter representing domestic airframe manufacturers disagrees that the change to the assist space requirement was necessary, and also states that evacuation demonstrations are adequate to identify deficiencies. This commenter considers the change an expansion of the existing requirements in that, on some installations, it is not currently possible for the 95th percentile male to stand upright while using the assist space. The commenter questions whether the assist space is evaluated with the exit open or closed, and whether the assist space is a 12 X 20-inch rectangular solid, from the floor to the height of a 95th percentile male, or whether it may be "the 95th percentile male humanoid shape." The commenter states that the proposal does not adequately define the total envelope of the assist space and will lead to increased costs as

specific installations are negotiated further. In addition, the commenter states that incorporation of the requirement into part 121 will render some current configurations (presumably still being produced 2 years after the effective date of the regulation) unacceptable. The costs of compliance for these configurations will involve galley redesign, flight attendant seat relocation, and possible loss of revenue seats, according to the commenter. This would require an operator to have two different interior arrangements on the same airplane type.

Response: As noted previously, the FAA has determined that specifying the dimensions of the assist space in the rule is not necessary. However, the intent of the proposal was to quantify something that has been a basic design practice over 30 years, and eliminate those few instances where a reduced size assist space may have been approved on the basis of "no observed problems" in an evacuation demonstration. The proposal would not have changed how the assist space is measured, once established. Since the assist space is only meaningful with the exit open, it would of course, continue to be determined in that condition. Small incursions into the vertical projection of the otherwise rectangular assist space will continue to be acceptable, provided that they are not a hazard, and do not adversely influence the efficacy of the assist space. The need for the assist space to be full-height is noted in Advisory Circular 25-17, page 723, paragraph 411. The AC notes that it is necessary to provide additional space if it is not possible to stand upright. With respect to current designs, only a few designs do not already comply with these criteria. Since the prescriptive dimensional requirements are being withdrawn, the remainder of the commenters concerns are obviated.

Comment: A foreign manufacturer also comments on the potential for the assist space requirement to influence revenue seating. The commenter also objects to the need for an increase in the fore and aft dimension of the assist space when adequate headroom is not provided. This commenter, as well as another commenter representing foreign airworthiness authorities, suggests that the requirement that the 12-inch dimension of the assist space be parallel to the exit is too restrictive, and may not be practical when the exit is located in the tapered section of the fuselage. Both commenters suggest that the 12-inch dimension be parallel to the aircraft centerline.

Response: The FAA agrees that the proposal was too restrictive. It was not our intent to propose precise measurements to ascertain whether the assist space was, in fact, parallel to the exit. By the same token, such measurements would not be expected to ascertain that the assist space is parallel to the airplane centerline. The assist space should generally be oriented with the 12-inch dimension along the length of the airplane, although since the exact dimensions are not specified in the rule, this information will become advisory material. Generally speaking, the assist space is expected to be oriented at an angle somewhere between parallel to the exit and parallel to the airplane centerline, which is no different than current practice. This allows sufficient latitude in identifying the assist space. With respect to additional fore and aft space, this has long been the requirement, as discussed previously.

Comment: Another foreign manufacturer also states that the requirement for an assist space based on passenger capacity, and not the presence of an assist means is highly detrimental to small transports. The commenter suggests that the requirement will force installation of Type III exits, where Type II exits might have been used.

Response: On November 8, 1996, the FAA published Amendment No. 25-88, which adopted a new means of determining passenger capacity and introduced two new exit types (61 FR 57946, November 8, 1996). In this final rule, we are adopting a change to § 25.813(b)(3) to require an assist space for airplanes with "more than 80 passengers" rather than "79 or more passengers" as stated in the proposal. While this change does not entirely address the commenter's concern, airplanes with one pair of Type I exits and one pair of Type III exits are not affected, unless the exit sill heights are greater than 6 feet from the ground. Airplanes incorporating more pairs of exits, or larger exits, should incorporate an assist space for the reasons discussed in the notice. It should also be noted that the exit type is based on the configuration of the interior, as well as the physical dimensions of the opening in the fuselage. An exit dimensionally equivalent to a Type II exit would become a Type III exit, irrespective of the size of the opening if an assist space were not provided; the maximum allowable passenger capacity would be reduced accordingly. Therefore, this requirement should not inhibit installation of larger than required exits.

Comment: One commenter also proposes an additional requirement, for exits at the end of a cabin, that the assist space be oriented so that the flight attendant would face passengers as they approach the exit.

Response: In general, the FAA agrees that having the flight attendant face passengers as they approach the exit can only be beneficial. While this is a desirable goal, the FAA does not believe it is feasible to mandate the location of the assist space to this degree. For the orientation of the assist space to make a difference, it would be necessary for the flight attendant to be able to see along the aisles, from the assist space,

as passengers approach. The regulations do not currently require this, nor was it proposed in the notice. Therefore, such a requirement is beyond the scope of the notice.

Flight Attendant Assist Handles

Ten commenters address the proposed requirement for flight attendant assist handles. Six of the commenters support the proposal, with one of those commenters suggesting an editorial change.

Comment: Two commenters accept the proposal with respect to new type design, but question the incorporation on existing and newly manufactured airplanes. One commenter requests that the compliance time be extended from 2 to 4 years, while the other commenter proposes that the requirement be limited to new type design only. Both commenters cite the costs of modifications for those airplanes that do not already comply, and assert that there are many such airplanes. In addition, one commenter indicates that it is not known which airplanes currently comply and operators will have to wait for manufacturers' service bulletins in order to make necessary modifications, which will require additional compliance time.

Response: The FAA agrees that the time for compliance may not be adequate in some cases. In particular, the need to address the two functions of the handle(s) on a retrofit basis is potentially much more difficult than for a new design. In order to address both the time for compliance and the potential complexity and associated cost of extensive retrofit, the final rule separates the requirement for a handle to assist the flight attendant while conducting an evacuation and the requirement for a handle to enable the flight attendant to steady himself or herself when actuating the assist means manually. The latter requirement will not apply to the existing fleet. In addition, 3 years are allowed

for compliance, both for newly manufactured airplanes and the existing fleet, to install an assist handle to aid in evacuation. Due to other editorial changes in this section, the requirement will be added in § 25.813(b)(6).

Comment: Several commenters question the applicability of the proposed requirement under various scenarios. Some commenters ask whether the handle was required when there is no assist means required.

Response: To the extent that an assist space is required, an assist handle is also required. If there is no assist means, the purpose of the handle would only be to facilitate evacuation. Also, if the assist means had no manual activation mechanism, such as with some airstair doors, the handle would also only be necessary to facilitate evacuation. To make this clear, the phrase "where applicable" is added after "assist means" in § 25.813(b)(6). Assist means that are not otherwise required, but are provided (such as certain integral airstairs), would not require an assist handle unless an assist space was otherwise required because of passenger capacity.

Comment: Commenters also question whether the assist handle can intrude into the 12 X 20-inch assist space vertical projection.

Response: To the extent that the assist handle performs it's function while the flight attendant occupies the assist space, the small amount of intrusion into the assist space that might be necessary is considered inconsequential. In fact, the handle could be considered part of the assist space. No change to the regulation is necessary.

Comment: One commenter also notes that there are assist spaces that are not located at the exit sill, and the proposal appears to be geared toward those that are. The

commenter asserts that the handle would not appear to provide a benefit when the assist space is away from the exit sill.

Response: The FAA does not agree. The purpose of the assist handle is to provide a steadying means for the flight attendant, during an evacuation, where the flight attendant is affecting the flow through an exit. Whether or not the assist space is at the exit sill, the need for the flight attendant to gain leverage still exists. While the arrangement may be different, the requirement applies, regardless of the location of the assist space relative to the exit sill.

Outside Viewing Means

Ten commenters address the provision for a means to view the outside conditions, prior to opening an exit. While some commenters request specific clarification on certain aspects of the requirement, only one commenter opposes the requirement for certain types of exits.

Comment: Some commenters note that the use of overwing escape systems means that the areas of evacuee ground contact may be distant from the location of the exit itself. In addition, the potential for future design concepts to have multiple decks, as well as longitudinal distances between the exit and the point where the escape system touches the ground should be taken into account.

Response: With respect to the potential for the exit to be somewhat remote from the point where the evacuees would contact the ground, the FAA agrees that this may be the case. The intent of the requirement is to enable a person to ascertain whether to open an exit, and whether it is safe to evacuate through the exit, based on an assessment of the outside conditions. To the extent that the means used for determination of the former

does not also allow an assessment of the ground, the FAA agrees that an additional viewing means may be necessary, and that the additional means may be somewhat remote from the exit. We have therefore reworded the amendment to allow for the dual purpose of the viewing means, and to distinguish the required locations of the two.

Comment: One commenter states that the requirement should not apply to ventral, tailcone and overhead (or any exit located above the mid-point of the fuselage) exits, and that the requirement to view areas of evacuee ground contact should be eliminated. The commenter notes that there are currently no windows in these areas of the cabin, and the fuselage structure in the vicinity of these exits does not, in any case, lend itself to a simple window as a means of compliance. The commenter points out that the condition of the landing gear can influence, by up to 80 degrees of arc in the roll axis, the position of ground contact and most people will not know where to look. Also, the commenter recommends that the requirement not apply to exits that utilize ropes or inertia reels as assist means, for the same reasons.

Response: The FAA does not agree that the requirement should not apply to ventral, tailcone or overhead exits. In most cases, it should be possible to view the outside conditions sufficiently well from a nearby passenger or flightdeck window to ascertain whether to open an overhead exit. This is considered acceptable. With respect to ventral and tailcone exits, the problem is more considerable, but there is no justification for not providing the same features at these types of exits, except for the added complexity. Future type designs may need to incorporate more novel features, to demonstrate compliance. However, the need to be able to determine whether or not to open the exit is no less important for these types of exits.

The FAA specifically requested comments on the feasibility of a viewing means at ventral and tailcone exits. Only one commenter addresses this issue, and does not provide any data to support the contention that the rule should not apply. As to whether passengers would know where to look, with the change discussed above, the functions of the viewing means are more clearly delineated and transparent to the passenger. A crewmember would be more likely to assess the areas of evacuee ground contact, while any person opening an exit should be given the opportunity to make a judgment as to whether to proceed. Therefore, with the changes noted above, the requirement is adopted.

Exit Hold-Open Feature

Eight commenters address the proposal to require a means to prevent exits from inadvertently closing in an emergency. Most commenters agree with the basic proposal but request clarification on specific points.

Comment: One commenter questions the applicability to removable, hatch type exits.

Response: As noted in the preamble to the notice, these exits would be considered in compliance by definition.

Comment: Several commenters address exits that are hinged on the bottom and held open by gravity.

Response: Exits that are hinged on the bottom are considered to comply by virtue of the basic design.

Comment: One commenter proposes a wording change such that the means "must not require operator action to engage."

Response: This is more general than the proposed wording, which implies a separate device. As noted above a separate device is not necessarily required; therefore, the wording in the second sentence of § 25.809(i) will be changed to read: "The means must not require separate action to engage when the exit is opened, and must require positive action to disengage."

Comment: One commenter expresses concern that the retrofit incorporation of this requirement is based on an assumption that the means currently in service are acceptable. The commenter notes this assumption has not been validated and, if incorrect, will increase the cost of the rulemaking considerably. The commenter suggests that the FAA explicitly state that all such existing devices are acceptable.

Response: The FAA agrees that the suitability of all existing devices has not been positively established, although it is unaware of any designs that would not be acceptable. To preclude an unanticipated compliance burden, and given that the vast majority of transport category airplanes already incorporate such features, the requirement in § 121.310(l) is changed to refer to airplanes manufactured after a date 3 years from the effective date of this amendment.

Interior Doors

The proposed provision relating to interior doors generated the largest number of comments, with 15 commenters responding. Five commenters support the proposal as written. Many commenters represent the corporate aviation community, where certain types of interior doors are currently standard features.

One common installation on corporate aircraft is a seat integrated into the lavatory, that can be occupied for takeoff and landing. Because the lavatory has a door,

this door effectively becomes a "door between passenger compartments," and not permitted under the current requirements. However, the FAA has accepted such installations under certain conditions, on an equivalent level of safety basis. It is important to note that the amendment in this final rule would not change the status of such occupied lavatories. They would continue to be assessed on a case-by-case basis and, if the requirements for equivalency were met, could be approved.

Comment: Several commenters have identified what they see as an inconsistency between §§ 25.813(e) and (f).

Response: With respect to the perceived conflict with §§ 25.813(e) and (f), as mentioned in the preamble to the notice, § 25.813(f) addresses occupants other than passengers that might have to use exits on the flightdeck, or in other areas. Thus there is no conflict with the prohibition of doors between passengers and exits established in § 25.813(e).

Comment: Commenters also note an inconsistency between the preamble and the proposed regulatory language in Notice No. 96-9 with respect to retrofit incorporation of the requirement. The preamble states that the proposed requirement would apply to "newly manufactured" airplanes, while the proposed regulatory language applies to all transport category airplanes in service. Most commenters agree with the proposal as it relates to commercial aviation. Although one example of an exit *inside* a lavatory was cited, that would no longer be acceptable under the proposal (or would require removal of the lavatory door).

Response: Regarding the perceived conflict in the preamble and the regulatory language, the regulatory language correctly expresses the intent of the proposal.

However, the FAA is aware of at least two existing air carrier installations where the route to an exit could be said to lead through a lavatory. In one case, the installation is literally such that the exit is inside the lavatory. In the other case, the normal interior configuration does not involve the lavatory; however, when in use, the lavatory door extends across the main aisle, and essentially encloses the aft exit, as well as a flight attendant seat. In the latter case, the FAA did not intend to require a substantial change to the type design in order to comply. This installation is arguably in compliance already, although it was not explicitly considered in the proposal. Each of these doors is permissible under the current regulations, because they are not "doors between passenger compartments." In each case however, the airplanes are no longer in production. In both cases, there is no obvious means of compliance that would not either render the lavatory unusable, or result in a substantial reconfiguration of the interior. Therefore, the amendment is changed to apply to newly manufactured airplanes, with no retrofit action to the existing fleet.

Comment: Another commenter requests clarification that the door in the aft pressure bulkhead, leading to a tailcone exit, would not be classified as a "door between passengers and exits."

Response: Doors in pressure bulkheads are not considered interior doors, and therefore not subject to this amendment.

Comment: Several commenters advocate the continued allowance of certain types of interior doors for corporate or other special purpose operations. These commenters note that such operations typically involve small numbers of occupants, small numbers of exits (meaning that there is less confusion regarding where each exit is) and passengers

that tend to be familiar with the airplane. The commenters point to a lack of adverse service history as justification for retaining the requirement in its current form for these sized airplanes. Some commenters suggest a passenger capacity limitation with respect to when interior doors could be allowed.

Response: Such installations could be acceptable under certain conditions, but would require a separate action, such as an exemption, or new rulemaking. For the basic type certification standard, the requirement is adopted as proposed.

Comment: One commenter points out that this rule would allow a flight attendant seat to be effectively isolated by a door, provided the seat was not adjacent to an exit.

Response: The commenter is correct, although the rule does not change what is permissible in that regard. The FAA is not aware of any such installations, and does not consider that this rule change increases the likelihood that such an installation would be proposed.

The FAA has given careful consideration to the special circumstances surrounding corporate and executive operations, and the differences in certification standards that result from the proposal. While it may be true that a higher percentage of passengers on corporate airplanes (as opposed to air carrier airplanes) are familiar with the exit arrangement, there is no guarantee of such familiarity. While it is true that there is no adverse service history with respect to interior doors on corporate airplanes, this can be attributed to an absence of service history in general, as opposed to any inherent superiority in this type of operation. The FAA is concerned that any regulation could lead to increased use of older airplanes, built to earlier certification standards in general. This could mean that newer airplane types that embody other improved safety features will not

get introduced into service. In this case, however, it is doubtful that an interior feature will drive the acquisition of an airplane over considerations such as performance and fuel efficiency offered by new designs. As discussed in the notice, the FAA has not identified an unsafe condition with interior doors in those types of operations, and is therefore not requiring retrofit of this segment of the fleet. Since Notice No. 96-9 was published, the FAA has processed exemptions for privately operated airplanes that allow the installation of interior doors, under certain conditions, when such exemptions have been shown to be in the public interest. These exemptions require specific design features, as well as limit the type of operation permitted (i.e., not offered for hire or common carriage) when such doors are installed. It is the FAA's intention to develop alternative regulatory standards that specifically apply to privately operated airplanes that would address several areas, primarily relating to cabin safety issues. This amendment, however, applies to transport category airplanes in general, irrespective of their intended operation and, as such, is adopted for part 25 as proposed. The FAA will continue to entertain petitions for exemption where public interest is demonstrated for privately operated airplanes.

Portable Oxygen Equipment

Twelve commenters address the proposal to require connection of oxygen masks to the oxygen supply, for portable oxygen equipment. Most commenters fully support the proposal, one commenter states the justification for retrofit seemed vague, but provided no additional substantiating information, and did not offer an alternative.

Comment: One commenter expresses a desire to have the connection for the oxygen mask outside any protective cover, with a separate cap. Another commenter states the proposed § 121.333(d)(2) constitutes a requirement for portable oxygen

equipment, where none currently exists today either in the operating rules or the type design rules.

Response: All safety equipment is currently required to be protected from inadvertent damage in accordance with § 25.1411, and so adopting an additional requirement for a cap on the oxygen mask connection is not necessary. With respect to whether the proposal requires portable oxygen equipment where it has not been required before, there is an editorial error in the proposed language for § 121.333(d)(2) that would have eliminated fixed installations with spare masks and outlets as an option. Part 25 however, has always required portable oxygen equipment to be immediately available for flight attendants, so this is not a new requirement. In order to account for both portable and fixed installations, the wording in § 121.333(d)(2) has been changed, and a new § 121.333(d)(3) is added so that each subparagraph offers an optional means of compliance.

Comment: One commenter objects to the proposed requirement. The commenter states that there are design, safety and economic reasons why the proposal should not be adopted. The commenter notes that masks are stored with the oxygen bottle, even if not connected to it, and a connection might cause the oxygen hose to kink or abrade. In addition, the commenter is concerned that design changes that might be required to comply with the rule not create compatibility problems with previously approved masks.

Response: The FAA agrees that the oxygen mask is stored with the bottle, but the proposal would provide connection of the mask to the oxygen supply in order to speed the availability of oxygen in an emergency. Since many installations are already delivered in this way, no extraordinary design measures should be required.

Comment: The commenter also is concerned that if oxygen flow is begun prior to removal of the mask from its attachment to the bottle, it might cause rupture of the reservoir bag. The commenter cites an airworthiness directive where something similar occurred.

Response: The airworthiness directive pertains to oxygen mounted in passenger service units where reservoir bags were inadvertently pressurized during testing. In the case of portable equipment, such tests would not be necessary and the bottle would have to be opened inadvertently. In addition, the reservoir bag would have to be configured in a particular manner in order to cause over-pressurization. Again, since this type of installation is already in service, these potential problems should be readily avoidable.

Comment: The commenter also questions whether the connected mask would comply with § 25.869, which requires oxygen systems to be installed so that they will not cause ignition of flammable fluids or vapors in case of leakage. The commenter contends that the connected assembly is more likely to be left open than were the mask not connected.

Response: Section 25.869 is primarily directed at fixed installations that may be installed near other systems, such as hydraulic or fuel systems, where leakage of oxygen could produce a serious, immediate hazard. This section could also apply to portable oxygen bottles, if they were installed in such locations. For the typical passenger cabin portable installation however, compliance with this section is typically not a significant obstacle. In addition, the FAA does not believe that the likelihood of an oxygen valve being left open is any different with or without the mask connected.

Comment: The commenter also identifies several areas where the estimated costs in the NPRM would be exceeded if design changes are necessary in order to comply. The commenter indicates that there might need to be both changes to the connection hardware, as well as relocation of the bottles and attachment hardware.

Response: As noted previously, the connection of the masks to the oxygen bottle is not an unusual feature or installation and the means to accomplish this are readily available. For the majority of installations, simply connecting the hose to the bottle is all that is required. For those instances where that is not true, the corrective action is not novel or requiring new technology, and can be accomplished easily. The FAA notes that no operators objected to the proposed requirement, and several explicitly concurred.

Finally, the commenter contends that the accident that resulted in the NTSB recommendation involved both difficulty in removing the oxygen mask from its packaging, as well as the time to connect the mask to the bottle. The commenter believes that making the packaging easier to open will satisfy the intent of the recommendation, and notes that equipment suppliers are working to accomplish this.

Response: The FAA concurs that the packaging for oxygen masks could, in many cases, be made easier to open. This does not address the intent of the NTSB recommendation (which was very specific with respect to connection of the oxygen mask) however, and essentially amounts to compliance with the current requirements of § 25.1411(a), which states that emergency equipment must be readily accessible. The final rule remains unchanged.

Various changes to part 121, since issuance of Notice 96-9, will have a small editorial effect on this amendment, but will not result in any substantive change to the requirements. There is also no change regarding which sections are affected.

Paperwork Reduction Act

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), there are no current or new requirements for information collection associated with this amendment.

International Compatibility with ICAO Standards

In keeping with U.S. obligations under the Convention on International Civil Aviation, it is FAA policy to comply with International Civil Aviation Organization (ICAO) Standards and Recommended Practices to the maximum extent practical. The FAA has reviewed the corresponding ICAO Standards and Recommended Practices and the Joint Aviation Authorities regulations, where they exist, and has identified no differences in these amendments and the foreign regulations.

Regulatory Evaluation Summary

Changes to Federal regulations must undergo several economic analyses. First, Executive Order 12866 directs each Federal agency proposing or adopting regulation to first make a reasoned determination that the benefits of the intended regulation justify its costs. Second, the Regulatory Flexibility Act of 1980 requires agencies to analyze the economic impact of regulatory changes on small entities. Third, the Trade Agreements Act prohibits agencies from setting standards that create unnecessary obstacles to the foreign commerce of the United States. In developing U.S. standards, this act requires agencies to consider international standards, and use them where appropriate as the basis

for U.S. standards. Fourth, the Unfunded Mandates Act of 1995 requires agencies to prepare a written assessment of the costs and benefits, and other effects of proposed and final rules. An assessment must be prepared only for rules that impose a Federal mandate on State, local, or tribal governments, or on the private sector, likely to result in a total expenditure of $100 million or more (adjusted for inflation) in any one year.

In conducting these analyses, the FAA determined that this rule has benefits that justify the minimal incremental costs; will not have a significant impact on a substantial number of small entities; has no effect on trade-sensitive activity; and does not impose an unfunded mandate on State, local, or tribal government, or on the private sector.

The provisions of this rule reflect current industry practices. The primary potential benefit of the final rule is that it will require these current practices to be continued in the future. Alternatively, without this rule, the current safety practices could be reduced. A secondary benefit of the final rule will arise from clarifying existing rules. The prevalence of these industry practices indicates that airplane manufacturers and operators have determined that they are warranted means of enhancing passenger and flight attendant safety.

In the analysis for the NPRM, the FAA estimated *de minimis* costs, and requested documented cost information from the industry. The FAA did receive comments regarding costs. After reviewing these comments the FAA concludes the *de minimis* cost conclusion is appropriate. Provisions of this rule (such as emergency exit viewing windows, and interior cabin doors) apply only to future type-certificated aircraft. Given future design flexibility, costs are considered to be negligible. Other provisions (such as assist handles, emergency exit door latch open devices, and portable oxygen bottles)

codify practices that are already being adopted by the entire industry. Even if an operator was not compliant, the costs of compliance are estimated to be less than $1000.

Costs and Benefits

The FAA believes that the certification of largely existing good industry practices ensures today's level of safety and will modestly improve future levels of air safety at minimal cost. The rule will codify current industry practices, an indication that aircraft manufacturers and airlines have determined that the rule, even before its publication, is aimed at enhancing passenger and flight attendant survivability in case of an accident. The major benefit is to ensure that the existing level of safety is maintained because, without the rule, the safety standards could be relaxed at any time.

The final rule will impose minimal, if any, incremental compliance costs on existing airplanes and airplanes manufactured under existing type certificates because it will codify existing industry practices, and clarify FAA requirements concerning cabin configuration and equipment specifications. There is one exception. The final rule could impose some compliance costs on future part 25 type-certificated airplanes, arising from the requirement for a viewing window in each emergency exit door or adjacent bay. In order for a tailcone emergency exit to meet this requirement, considerable engineering redesign may be needed. The FAA specifically requested comments on this topic, but commenters only dealt with the inability to view the outside environment from the tailcone emergency exit, not from the cost of redesign. It is conceivable that, since the rule applies only to airplanes for which an application for type certificate is made after the effective date, and no retrofit requirement is included, most future aircraft will not be equipped with a tailcone exit.

Another comment referenced the installation of interior doors. In this case, the argument was made that revenue would be lost by the aftermarket industry if interior doors could not be installed after purchase from the original equipment manufacturer. Since the requirement is not retrofit to the existing fleet, and the FAA will continue to entertain petitions for exemption where public interest is demonstrated for privately-owned airplanes, the rule will not dimish the earning potential of any firm engaged in installing doors in existing aircraft. Certain future unscheduled charter operators might be negatively affected, but since the rule applies only to future aircraft, the FAA cannot predict what cost will be encumbered given manufacturers' flexibility to design and customize new airplanes to meet customer needs.

Yet another comment was made by an aerospace industry association expressing concern over the possible increased cost of compliance with respect to oxygen equipment but providing no detail as to why they believe it would be the case. No operators objected because the majority, if not all, of the installations are already compliant with the rule (and if there are any that are not, the corrective action can be accomplished very easily)

Regulatory Flexibility Determination

The Regulatory Flexibility Act of 1980 (RFA) was enacted by Congress to ensure that small entities are not unnecessarily or disproportionately burdened by government regulations. The Act establishes "as a principle of regulatory issuance that agencies shall endeavor, consistent with the objective of the rule and of applicable statutes, to fit regulatory and informational requirements to the scale of the business, organizations, and governmental jurisdictions subject to regulation." To achieve that principle, the Act requires agencies to solicit and consider flexible regulatory proposals and to explain the

rationale for their actions. The Act covers a wide-range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions.

Agencies must perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. If the determination is that it will indeed have a significant impact, the agency must prepare a regulatory flexibility analysis as described in the Act.

However, if an agency determines that a proposed or final rule is not expected to have a significant economic impact on a substantial number of small entities, section 605(b) of the Act provides that the head of the agency may so certify, and an regulatory flexibility analysis is not required. The certification must include a statement providing the factual basis for this determination, and the reasoning should be clear. In this case, the FAA economic evaluation for the NPRM estimated that the rule will impose no, or *de minimis*, costs to the aviation industry as a whole. The FAA did receive comments regarding compliance costs. After reviewing these comments the FAA determined that the *de minimis* costs conclusion remains appropriate. Therefore, the FAA certifies that there will be no significant economic impact on a substantial number of small entities.

International Trade Impact Assessment

The Trade Agreement Act of 1979 prohibits Federal agencies from engaging in any standards or related activities that create unnecessary obstacles to the foreign commerce of the United States. Legitimate domestic objectives, such as safety, are not considered unnecessary obstacles. The statute also requires consideration of international standards and where appropriate, that they be the basis for U.S. standards.

In accordance with the above statute, the FAA has assessed the potential effect of this final rule will have, at most, minimal impact on the competitive posture of either U.S. carriers doing business in foreign countries or foreign carriers doing business in the United States. This assessment is based on the fact that this rule will have, at most, minimal impact on existing part 121 operators, since they are already in compliance. These requirements, therefore, will not impose a competitive disadvantage for U.S. air carriers operating overseas or for foreign carriers operating in the United States. Finally, the certification requirement of this rule will not constitute a barrier to international trade because part 25 certificated aircraft currently manufactured are already in compliance with this rule.

Unfunded Mandates Act Assessment

Title II of the Unfunded Mandates Reform Act of 1995 (the Act), enacted as Pub.L.104-4 on March 22, 1995, requires each Federal agency, to the extent permitted by law, to prepare a written assessment of the effects of any Federal mandate in a proposed or final agency rule that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $120,700,000 (adjusted for inflation to calendar year 2003 levels by the Consumer Price Index for All Urban

Consumers). Section 204(a) of the Act, 2 U.S.C. 1534(a), requires the Federal agency to develop an effective process to permit timely input by elected officers (or their designees) of State, local, and tribal governments on a proposed "significant intergovernmental mandate". A "significant intergovernmental mandate" under the Act is any provision in a Federal agency regulation that would impose an enforceable duty upon State, local, and tribal governments, in the aggregate, of $100 million (adjusted annually for inflation) in any one year. Section 203 of the Act, 2 U.S.C. 1533, which supplements section 204(a), provides that before establishing any regulatory requirements that might significantly or uniquely affect small governments, the agency shall have developed a plan that, among other things, provides for notice to potentially affected small governments, if any, and for a meaningful and timely opportunity to provide input in the development of regulatory proposals or rules.

This final rule does not contain any Federal intergovernmental or private sector mandate. Therefore, the requirements of Title II of the Unfunded Mandates Reform Act of 1995

Executive Order 3132, Federalism

The FAA has analyzed this final rule under the principles and criteria of Executive Order 13132, Federalism. We determined that this action will not have a substantial direct effect on the State, or the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, we determined that this final rule does not have federalism implications.

Regulations Affecting Interstate Aviation in Alaska

Section 1205 of the FAA Reauthorization Act of 1996 (110 Stat. 3213) requires the Administrator, when modifying regulations in Title 14 of the CFR in a manner affecting interstate aviation in Alaska, to consider the extent to which Alaska is not served by transportation modes other than aviation, and to establish such regulatory distinctions as he or she considers appropriate. Because this rule would apply to the certification of future designs of transport category airplanes and their subsequent operation, it could, if adopted, affect interstate aviation in Alaska.

Environmental Analysis

FAA Order 1050.1E identifies FAA actions that are categorically excluded from preparation of an environmental assessment or environmental impact statement under the National Environmental Policy Act in the absence of extraordinary circumstances. The FAA has determined this rulemaking action qualifies for the categorical exclusion identified in paragraph 312f and involves no extraordinary circumstances.

Energy Impact

The energy impact of the rule has been assessed in accordance with the Energy Policy and Conservation Act (EPCA) and Public Law 94-163, as amended (42 U.S.C. 6362). It has been determined that it is not a major regulatory action under the provisions of the EPCA.

List of Subjects

14 CFR Part 25

Air transportation, Aircraft, Aviation safety, Safety.

14 CFR Part 121

Aviation safety, Safety, Air carrier, Air traffic control, Air transportation, Aircraft, Aircraft pilots, Airmen, Airplanes, Airports, Airspace, Cargo, Chemicals, Children, Narcotics, Flammable materials, Handicapped, Hazardous materials, Common carriers.

The Amendment

In consideration of the foregoing, the Federal Aviation Administration amends parts 25 and 121 of Title 14 of the Code of Federal Regulations as follows:

PART 25 - AIRWORTHINESS STANDARDS: TRANSPORT CATEGORY AIRPLANES

1. The authority citation for part 25 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

2. Section 25.809 is amended by revising paragraph (a), and by adding a new paragraph (i) to read as follows:

§ 25.809 Emergency exit arrangement.

(a) Each emergency exit, including each flightcrew emergency exit, must be a moveable door or hatch in the external walls of the fuselage, allowing an unobstructed opening to the outside. In addition, each emergency exit must have means to permit viewing of the conditions outside the exit when the exit is closed. The viewing means may be on or adjacent to the exit provided no obstructions exist between the exit and the viewing means. Means must also be provided to permit viewing of the likely areas of evacuee ground contact. The likely areas of evacuee ground contact must be viewable during all lighting conditions with the landing gear extended as well as in all conditions of landing gear collapse.

* * * * *

(i) Each emergency exit must have a means to retain the exit in the open position, once the exit is opened in an emergency. The means must not require separate action to engage when the exit is opened, and must require positive action to disengage.

3. Section § 25.812 is amended by revising paragraphs (g)(1)(ii), (g)(2), and (h) introductory text to read as follows:

§ 25.812 Emergency Lighting.

* * * * *

(g) * * *

(1) * * *

(i) * * *

(ii) Not less than 0.05 foot-candle (measured normal to the direction of the incident light) for a minimum width of 42 inches for a Type A overwing emergency exit and two feet for all other overwing emergency exits along the 30 percent of the slip-resistant portion of the escape route required in § 25.810(c) that is farthest from the exit; and

* * * * *

(2) At each non-overwing emergency exit not required by § 25.810(a) to have descent assist means the illumination must be not less than 0.03 foot-candle (measured normal to the direction of the incident light) on the ground surface with the landing gear extended where an evacuee is likely to make first contact with the ground outside the cabin.

(h) The means required in §§ 25.810(a) and (d) to assist the occupants in descending to the ground must be illuminated so that the erected assist means is visible from the airplane.

* * * * *

4. Section 25.813 is amended by revising paragraphs (b)(1), (b)(2) and (b)(3), by adding new paragraphs (b)(4), (b)(5) and (b)(6) and by revising paragraphs (e) and (f) to read as follows:

§ 25.813 Emergency exit access

* * * * *

(b) * * *

(1) Each assist space must be a rectangle on the floor, of sufficient size to enable a crewmember, standing erect, to effectively assist evacuees. The assist space must not reduce the unobstructed width of the passageway below that required for the exit.

(2) For each Type A or B exit, assist space must be provided at each side of the exit regardless of whether an assist means is required by § 25.810(a).

(3) For each Type C, I or II exit installed in an airplane with seating for more than 80 passengers, an assist space must be provided at one side of the passageway regardless of whether an assist means is required by § 25.810(a).

(4) For each Type C, I or II exit, an assist space must be provided at one side of the passageway if an assist means is required by § 25.810(a).

(5) For any tailcone exit that qualifies for 25 additional passenger seats under the provisions of § 25.807(d)(3)(ii), an assist space must be provided, if an assist means is required by § 25.810(a).

(6) There must be a handle, or handles, at each assist space, located to enable the crewmember to steady himself or herself:

(i) while manually activating the assist means (where applicable) and,

(ii) while assisting passengers during an evacuation.

* * * * *

(e) No door may be installed between any passenger seat that is occupiable for takeoff and landing and any passenger emergency exit, such that the door crosses any egress path (including aisles, crossaisles and passageways).

(f) If it is necessary to pass through a doorway separating any crewmember seat (except those seats on the flightdeck), occupiable for takeoff and landing, from any emergency exit, the door must have a means to latch it in the open position. The latching means must be able to withstand the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, listed in § 25.561(b).

§ 25.819 [Amended]

~~5. In § 25.819, paragraph (f), remove "§ 25.785(c)" and insert "§ 25.785(d)" in its place.~~ JMaller 10/21/04

5-6. Section § 25.853 is amended by revising paragraph (f) to read as follows: JMa 10/21/04

§ 25.853 Compartment interiors.

* * * * *

(f) Smoking is not allowed in lavatories. If smoking is allowed in any area occupied by the crew or passengers, an adequate number of self-contained, removable ashtrays must be provided in designated smoking sections for all seated occupants.

* * * * *

7. The introductory text in § 25.855 is ~~amended~~ revised to read as follows:

§ 25.855 Cargo or baggage compartments.

For each cargo or baggage compartment, the following apply:

* * * * *

8. Section § 25.1411 is amended by revising paragraph (c) to read as follows:

§ 25.1411 General.

* * * * *

(c) Emergency exit descent device. The stowage provisions for the emergency exit descent devices required by § 25.810(a) must be at each exit for which they are intended.

* * * * *

9. Section 25.1447 is amended by revising paragraph (c)(4) to read as follows:

§ 25.1447 Equipment standards for the oxygen ~~distributing~~ dispensing units.

* * * * *

(c) * * *

(4) Portable oxygen equipment must be immediately available for each cabin attendant. The portable oxygen equipment must have the oxygen dispensing unit connected to the portable oxygen supply.

PART 121-~~CERTIFICATION AND OPERATIONS: DOMESTIC FLAG, AND SUPPLEMENTAL AIR CARRIERS AND COMMERCIAL OPERATORS OF LARGE AIRCRAFT~~ Operating Requirements: Domestic, Flag and Supplemental Operations

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

Authority: 49 U.S.C. 106(g), 40113, 40119, 44101, 44701-44702, 44705, 44709-44711, 44713, 44716-44717, 44722, 44901, 44903-44904, 44912, 46105..

11. Section 121.310 is amended by revising paragraph (f)(2), by redesignating paragraph (f)(6) as (f)(7), by adding a new paragraph (f)(6), by redesignating existing paragraph (l) as paragraph (n), by adding a new paragraph (l), and by republishing newly redesignated paragraphs (f)(7) and (n) to read as follows:

§ 121.310 Additional emergency ~~exit~~ equipment.

JMA 10/21/04

* * * * *

(f) * * *

(2) For each Type I or Type II emergency exit equipped with an assist means, there must be enough space next to the exit to allow a crewmember to assist in the evacuation of passengers without reducing the unobstructed width of the passageway below that required in paragraph (f)(1) of this section. In addition, all airplanes manufactured on or after [insert a date four years after the effective date of this amendment] must comply with the provisions of §§ 25.813(b)(1), (b)(2), (b)(3) and (b)(4) in effect on [insert the effective date of this amendment.] However, a deviation from this requirement may be authorized for an airplane certificated under the provisions of part 4b of the Civil Air Regulations in effect before December 20, 1951, if the Administrator finds that special circumstances exist that provide an equivalent level of safety.

* * * * *

(6) No person may operate an airplane manufactured after [insert a date 2 years after the effective date of this amendment], that incorporates a door installed between any passenger seat occupiable for takeoff and landing and any passenger emergency exit, such that the door crosses any egress path (including aisles, crossaisles and passageways).

(7) If it is necessary to pass through a doorway separating any seat (except those seats on the flightdeck), occupiable for takeoff and landing, from an emergency exit, the door must have a means to latch it in the open position, and the door must be latched open during each takeoff and landing. The latching means must be able to withstand the loads imposed upon it when the door is subjected to the ultimate inertia forces, relative to the surrounding structure, listed in § 25.561(b) of this chapter.

* * * * *

(l) Emergency exit features.

(1) Each transport category airplane manufactured after [insert a date three years after the effective date of this amendment] must comply with the provisions of § 25.809(i) and

(2) After [insert a date three years after the effective date of this amendment] each transport category airplane must comply with the provisions of § 25.813(b)(6)(ii) in effect on [insert the effective date of this amendment].

(m) * * *

(n) Portable lights. No person may operate a passenger-carrying airplane unless it is equipped with flashlight stowage provisions accessible from each flight attendant seat.

12. Section 121.333 is amended by revising paragraph (d) as follows:

§ 121.333 Supplemental oxygen for emergency descent and for first aid; turbine engine powered airplanes with pressurized cabins.

* * * * *

(d) Use of portable oxygen equipment by cabin attendants. After [a date one year after the effective date of this amendment] each mask used for portable oxygen equipment must be connected to its oxygen supply. Above flight level 250, one of the following is required:

(1) Each attendant shall carry portable oxygen equipment with a 15 minute supply of oxygen; or

(2) There must be sufficient portable oxygen equipment (including masks and spare outlets) distributed throughout the cabin so that such equipment is immediately available to each attendant, regardless of their location in the cabin; or

(3) There are sufficient spare outlets and masks distributed throughout the cabin to ensure immediate availability of oxygen to each cabin attendant, regardless of their location in the cabin.

* * * * *

Marion C. Blakey

Marion C. Blakey, Administrator

Issued in Washington, D.C., on OCT 15 2004

10/21/04