

# Proposed Rules

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Parts 25 and 121

[Docket No. 28061, Notice No. 95-1]

RIN 2120-AF01

#### Revised Access to Type III Exits

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM); withdrawal.

**SUMMARY:** The FAA is withdrawing a previously published NPRM that proposed to adjust requirements for access to Type III emergency exits (typically smaller over-wing exits) in transport category airplanes with 60 or more passenger seats. These adjustments reflected the results of additional testing by the FAA's Civil Aeromedical Institute (CAMI) conducted after the standards had been adopted. We are withdrawing the document because CAMI research on the issues is still ongoing and the Aviation Rulemaking Advisory Committee (ARAC) is currently considering a recommendation for a harmonized proposal on the issues addressed by Notice No. 95-1. ARAC will make its recommendation after completion of a FAA research program to study access to Type III exits. The FAA has determined that it should wait and see if some future regulatory action including the broader scope of this harmonized proposal would better serve the public interest.

#### FOR FURTHER INFORMATION CONTACT:

Jayson Claar, Transport Airplane Directorate, Airframe and Cabin Safety Branch, Federal Aviation Administration, 1601 Lind Avenue SW, Renton, WA 98055; telephone (425) 227-2194.

#### SUPPLEMENTARY INFORMATION:

##### Background

On May 4, 1992, the FAA published a final rule (Amendment Nos. 25-76

and 121-228) which set standards for access to Type III emergency exits in transport category airplanes with 60 or more passenger seats (57 FR 19220). These standards were the result of testing conducted by the FAA's Civil Aeromedical Institute and were intended to improve the ability of occupants to evacuate an airplane under emergency conditions. CAMI conducted further testing as time and resources became available, and the FAA subsequently proposed adjustments to those standards in Notice No. 95-1, published on January 30, 1995 (60 FR 5794).

Part 25 of Title 14 of the Code of Federal Regulations defines a number of different types of passenger emergency exits for use in transport category airplanes. As defined in § 25.807(a)(3), a Type III exit must have an opening not less than 20 inches wide by 36 inches high. It need not be rectangular in shape, provided a rectangle of those dimensions can be inscribed within the opening. The corner radii must not exceed one-third the width of the exit. The step-up distance inside the cabin must not exceed 20 inches. Type III exits are typically located over the wing; when so located, the step-down to the wing must not exceed 27 inches. Type III exits are typically removable hatches, but they may be hinged or tracked doors. They are sometimes referred to as "window exits."

CAMI tested various exit configurations with three-seat rows to obtain a more comprehensive understanding of effects of passageway widths and offsets from the exit opening. For these tests, CAMI used the same test fixture as that used for the tests conducted prior to the adoption of Amendment 25-76. It consisted of the fuselage of a Douglas C-124 airplane with seats and other equipment installed to represent an airline airplane in all aspects relevant to the tests. The test methods and procedures used for these tests were similar to those used during the earlier series of tests. And, as in the earlier tests, the purpose was to measure, on a comparative basis, the effectiveness of the features of an airplane when used in a typical, reasonable manner. The purpose was not to measure the performance of any particular group of test subjects, nor to evaluate the total elapsed time needed to evacuate an airplane under any

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specific crash scenario. The CAMI tests were intended to evaluate comparatively the effects of passageway width and seat-row encroachment on total time for egress through Type III exits.

Testing determined that the total egress times with 13-, 15-, and 20-inch passageways were nearly identical. In contrast, the total egress times for the narrower 10- and 6-inch passageways, were much greater. These tests also measured the effect of centerline offset; i.e., the distance that the centerline of the passageway is offset from the centerline of the exit. The tests showed that 13-inch passageways with centerline offsets up to 6½ inches provide egress capability equal to that of 20-inch passageways with the 5-inch maximum offset allowed by the current rule. Tests conducted with a group of older subjects found that egress times were slower for older occupants, but the relative merits of the various passageway widths and offsets were similar.

Testing also proved consistent with a series of evacuation tests that had been conducted in the United Kingdom, generally referred to as the "competitive tests." Although providing more space adjacent to an exit would intuitively seem to improve the evacuation flow rate, the competitive tests showed that providing more space does not always improve the flow rate and may, in some instances, actually prove to be counterproductive. This is primarily because evacuees sometimes form multiple files when additional space is available and compete for access to the exit, rather than pass through it in one orderly file. It must be emphasized that the competitive tests were conducted for a different purpose than either the CAMI tests or the tests conducted prior to the adoption of Amendment 25-76. The competitive behavior tests were conducted to analyze human behavior under emergency conditions, while the FAA tests were to compare the capability of various configurations when used in a typical, reasonable manner. Nevertheless, the CAMI tests were consistent with the competitive tests, in that a 13-inch passageway was shown to provide an egress capability as good as that provided by a 20-inch passageway.

In view of the results of the CAMI tests, the FAA determined that an

unobstructed passageway 13 inches wide, with its centerline offset no more than 6½ inches from the centerline of the exit, provides a level of safety equal to that provided by the 20-inch passageway specified in § 25.813(c)(1)(i). Had data from those tests been available prior to the adoption of Amendment 25-76, the FAA would have specified 13 inches minimum width and 6½ inches maximum offset at that time. Notice No. 95-1 proposed to amend § 25.813(c)(1)(i) to specify 13 inches minimum width and a maximum centerline offset of 6½ inches for rows with three seats.

Notice No. 95-1 would also have proposed the correction of an editorial error by amending § 121.310(f)(3)(iii) to incorporate § 25.813(a)(2) by reference. Further, the incorporation by reference of § 25.813(c) in § 121.310(f)(3)(iii) would have been clarified by replacing the reference to § 25.813(c) in its entirety with a reference to only §§ 25.813(c)(1) and (3).

The NPRM invited public comment to assist the FAA in the rulemaking process. The comment period closed on May 1, 1995.

#### Discussion of Comments

Two aircraft manufacturers, a consumer advocate, an organization representing European aircraft manufacturers, and three individuals responded to Notice No. 95-1. In addition, an organization representing U.S. airlines and another representing three airline flight attendant unions also responded. One foreign airworthiness authority also reviewed the notice, but submitted no comments.

One manufacturer concurred with the notice, concluding that it would lessen the overly tight pitch requirement for seats adjacent to Type III exits. The commenter also commended CAMI for its study and noted that it will alleviate a potential financial burden on the aircraft industry while still maintaining the high level of safety that currently exists. The other manufacturer concurred, but offered no further comment.

The consumer advocate opposed requiring the minimum passageway width to be only 13 inches, claiming it would be detrimental to passenger safety, would ignore the critical lessons of past fatal accidents, and would offer no demonstrable benefits. The commenter offered no evidence to support those opinions, and they are contradicted by evidence outlined in the preamble of Notice No. 95-1.

A number of commenters questioned the validity of the CAMI testing.

Generally, they believe the study to be unrealistic because it did not represent an actual crash. They noted that there was no fire, smoke or toxic fumes, no panic, subjects did not represent a cross-section of the flying public, the competitive behavior that might be exhibited in an actual crash was not experienced, and the exit hatch was not required to be removed by one of the passengers. These comments would have been applicable if the purpose of the testing had been to measure how passengers would respond in an actual crash. However, the purpose of these tests was not to evaluate the performance of passengers. The purpose was to determine the minimum passageway width and maximum centerline offset that would allow egress equivalent to that allowed by a 20-inch passageway with a 5-inch offset. The CAMI tests targeted airplane configuration—not vision, motivation, variations in passenger behavior, airplane crashes, or any combination of those variables.

It must be noted that evacuation demonstrations are not conducted under actual conditions of fire, smoke, or toxic fumes for two basic reasons. The first and foremost consideration is the safety and well-being of the test subjects. Testing under those conditions could very likely result in unnecessary serious injuries to the test subjects. Second, the purpose of such demonstrations is not to show that test subjects can evacuate an airplane in a specified time under all possible emergency conditions. Due to the myriad of different possible crash scenarios that could occur and the varying need for urgency, it would be impossible to develop a series of tests that would encompass all of those possible conditions. Instead, the evacuation capability of an airplane is evaluated under standard, repeatable conditions. By testing under such controlled, consistent conditions, the evacuation capability of an airplane can be compared with that of the other airplanes that have been tested previously under the same conditions. Through this indirect means, the evacuation capability of the airplane is related to the accidents that have actually occurred with those earlier airplanes. The evacuation capability of an airplane under the variables cited by the commenters is, therefore, considered without exposing test subjects to intolerable risk of serious injury.

A second set of tests conducted with older subjects was invalid in certain respects because some of the test subjects stepped on the seat cushions rather than fully utilizing the passageway. One commenter believes

that older passengers adopted this practice because the passageway was too narrow for older passengers who are not as agile. Actually, this practice was the result of an inadvertent incorrect instruction given by a flight attendant rather than an ingenious response to insufficient passageway space, as suggested by the commenter. The video records of the testing clearly show that the older test subjects did not step on the seat cushions simply because the passageway lacked sufficient width at floor level, nor that they had any difficulty with a 13-inch wide passageway for that matter. In fact, all of the video records of testing of both 13-inch and 20-inch passageways demonstrated that the subjects generally lined up in the passageway awaiting their turn to pass through the exit. In other words, the egress pace was determined not by the width of the passageway, but by the rate of movement through the exit.

Two commenters referred to the tragic US Air accident at Los Angeles, California, in 1991. In that regard, one quoted from a document entitled, "Eighteenth Report by the Committee on Government Operations in 1992." According to the commenter, the document states, in part, "if the passageway to the overwing exit had been just a few inches wider, more people might have escaped." While that statement would intuitively seem to be true, there were mitigating circumstances involved in the evacuation of that airplane. In any event, the reference to that accident is not relevant. Since the passageways leading to the Type III exits in the USAir airplane were approximately 6 to 6½ inches wide, the proposed minimum passageway width of 13 inches is approximately twice as great.

The organization representing U.S. airlines forwarded responses received from three of their member airlines. One airline supported the proposed changes without further comment. In addition to supporting the changes that were proposed, two other airlines raised issues concerning previously granted deviations from the requirements. Section 121.310(f)(3)(iv) permits the FAA to authorize deviations from § 25.813 that allow recline on the inboard seats only. This concession applies only to existing airplanes. Later airplane designs must comply with § 25.813 as a condition of type certification. Accordingly, no change to either § 25.813 or § 121.310 is warranted.

The organization representing European aircraft manufacturers described a series of tests conducted

later at the Cranfield Institute in the United Kingdom. (This is the same facility in which the previously mentioned "competitive tests" were conducted.) According to the commenter, the later tests were conducted using the same protocol as the CAMI tests, but with a passageway as narrow as 10 inches and 9 inches offset. Based on this test series, the commenter believes that a passageway only 10 inches wide provides the same level of safety as a wider passageway. The commenter implied that § 25.813(c)(1)(i) should, therefore, be amended to require only a passageway 10 inches wide with three-abreast seat rows, rather than 13 inches wide as proposed in Notice No. 95-1. Although the results of this series of tests would appear to be inconsistent in this regard with the results of both the FAA testing and testing conducted earlier at Cranfield, adopting a minimum width of less than 13 inches would be beyond the scope of the notice, even if these test results would justify such a change.

The same commenter referred to a pending proposed amendment to Joint Aviation Requirements for Large Aeroplanes-25 (JAR-25) concerning access to Type III exits. The commenter noted that part 25 will not contain all of the requirements concerning access to Type III exits being considered for inclusion in JAR-25 and believes that the NPRM should not proceed to the final rule stage until the standards of the two codes can be harmonized.

This comment underscores the central reason for withdrawal of Notice No. 95-1. The FAA is involved in eliminating unnecessary differences between the Federal Aviation Regulations and the Joint Aviation Requirements (JAR) used in European countries, through an ongoing cooperative harmonization process that includes Joint Aviation Authorities (JAA) and Transport Canada. JAR-25 is the code of standards adopted by the airworthiness authorities of a number of European countries for type certification of transport category airplanes. It is based on, and is generally similar to, part 25; however, there are detail differences. The FAA's desire to harmonize the two codes has dictated their efforts in many areas of current regulatory activity. ARAC's Occupant Safety Issues Area, formerly known as the Emergency Evacuation Issues Area, is working on a recommendation for a harmonized proposal on the issues addressed by Notice No. 95-1. ARAC will make its recommendation after completion of a FAA research program to study access to Type III exits.

Subsequent to the close of the comment period and analysis of the

timely comments, comments were received from three additional consumer advocacy groups and two labor organizations. Each opposed requiring the minimum passageway width to be only 13 inches. Like the consumer advocate that had commented earlier, two of the consumer advocacy groups claimed that requiring a minimum passageway width of 13 inches would be detrimental to safety and would offer no demonstrable benefits. Those commenters offered no evidence to support those opinions; and, as discussed above, they are contradicted by evidence outlined in the preamble of Notice No. 95-1.

The third late commenter also opposed requiring passageways to be only 13 inches wide for essentially the same reasons as those given by earlier dissenting commenters. Many of the points raised by that commenter are addressed in response to the timely comments; however, that commenter did raise additional issues.

The commenter questioned the effectiveness of adjacent Type III exits. Although not directly related to this rulemaking, the FAA has initiated separate rulemaking to reduce the combined passenger rating of such exits when they are located within three passenger seat rows of each other.

The commenter characterized the CAMI tests as "manipulating research data to suggest that 13 inches would produce the same benefit." Contrary to the commenter's characterization, the tests do not represent "manipulation" of the earlier research data on which Amendment 25-76 was based. In fact, the CAMI tests confirm the results of the first test series "passageways that are 20 inches wide do provide egress capability superior to that provided by passageways that are 10 inches wide." (This refers, of course, to installations of three-seat rows. Ten-inch passageways were found during the earlier testing to provide the same superior egress capability when two-seat rows are installed. No change was proposed in Notice No. 95-1 to the standards for access when two-seat rows are provided.) Since no testing of intermediate passageway widths was conducted during the first series, there were no data pertaining to those widths from the first series to "manipulate." The egress capability provided by intermediate passageway widths was unknown at the time Amendment 25-76 was adopted, and the CAMI tests merely provided data for those intermediate passageway widths.

Finally, the commenter asserted that data from the testing conducted both in this country by CAMI and in the United

Kingdom at Cranfield show that 20-inch passageways provide superior egress capability. Contrary to the commenter's assertion, the data from the recent CAMI tests do, in fact, show that 13-inch passageways provide egress capability equal to that provided by 20-inch passageways. Also contrary to the commenter's assertion, the competitive behavior tests conducted at Cranfield do not show that 20-inch passageways provide superior egress capability to those 13 inches in width.

The fourth late commenter opposed requiring passageways only 13 inches in width and questioned the validity of the test procedures. Most of the points raised by the commenter were raised by other dissenting commenters and addressed above. There were, however, a number of additional points raised.

The commenter noted that Advisory Circular 25-17 describes the Latin Square test method and implies that the inclusion of that test method in the advisory circular means other test methods are invalid. Advisory Circulars describe acceptable methods, but not the only acceptable methods, for complying with regulations. Contrary to the commenter's implication, the method used in the CAMI tests is also an established and highly respected scientific method to ensure that the test results are not clouded by variations in test subject performance. The Latin Square test method was not used in the CAMI tests primarily because it would have required almost twice as many test subjects to test the same configurations.

The commenter also quoted a statement made by the National Transportation Safety Board (NTSB) and asserts the statement means the NTSB opposes requiring these passageways to only be 13 inches wide. According to the commenter, the NTSB states in the accident investigation report for the USAir accident at Los Angeles in 1991, "The Safety Board believes that a continuous access path of no less than 20 inches, as demonstrated by tests, is preferable to removing the seat adjacent to the exit or removing the seat and having a 20-inch or less access path." The NTSB was actually referring to the relative merits of the two proposed configurations that were later adopted in Amendment 25-76. The NTSB would not have commented on the merits of a passageway 13 inches in width because that was not one of the configurations proposed then and there were no applicable test data available then to prove or disprove its merits. As noted above, there were no specific standards for access to Type III exits at the time of the USAir accident; however, the passageways of that airplane were

approximately 6 to 6½ inches in width. The NTSB did not submit any comments concerning the changes proposed in Notice No. 95-1 and has not made any formal recommendations concerning the width of passageways leading to Type III exits.

The issues raised by the last late commenter were all addressed in response to other commenters; however, that commenter questioned the use of the term "clear path" in the graph of pathway widths versus egress time contained in the preamble to Notice No. 95-1. "Clear path" was used in the preliminary graph of the results of the second test series to denote a configuration in which the forward-most edge of the unobstructed passageway was no farther forward than the forward-most edge of the emergency exit. It was recognized that the term could cause confusion, so the test configurations were described in terms of centerline offset or seat encroachment in the final reports.

#### Reason for Withdrawal

CAMI is presently doing further studies on access to Type III exits. The withdrawal of Notice No. 95-1 enables future rulemaking action that will be able to benefit from this ongoing research and produce a more accurate, fresh perspective on the issues.

In addition, the FAA is involved in eliminating unnecessary differences between the Federal Aviation Regulations and the Joint Aviation Requirements used in European countries. This is an ongoing process of aligning its regulations with those of the Joint Aviation Authorities (JAA) known as harmonization. Our desire to harmonize the two codes has dictated our efforts in many areas of current regulatory activity. ARAC's Occupant Safety Issues Area, formerly known as the Emergency Evacuation Issues Area, is working on a recommendation for a harmonized proposal on the issues addressed by Notice No. 95-1. ARAC will make its recommendation after completion of a FAA research program to study access to Type III exits. Continuing industry input through the ARAC process will contribute to a more complete analysis of the issues. Therefore, we have determined that it would be better to wait and see if some future regulatory action including the broader scope of this harmonized proposal would better serve the public interest.

#### Withdrawal of Proposed Rule

Withdrawal of Notice No. 95-1 does not preclude the FAA from issuing another NPRM on the subject matter in

the future or committing the agency to any future course of action. To achieve harmonization goals, we will make any necessary changes to the Code of Federal Regulations through a future NPRM with opportunity for public comment. Therefore, the FAA withdraws Notice No. 95-1, published on January 30, 1995 (60 FR 5794).

Issued in Washington, DC, on April 26, 2002.

**John Hickey,**  
*Director, Aircraft Certification Service (AIR-1).*

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**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 71

**[Airspace Docket No. 02-AEA-01]**

#### Establishment of Class E Airspace; Lee Airport, Annapolis, MD

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This notice proposes to establish Class E airspace at Lee Airport (ANP), Annapolis, MD. The development of a Standard Instrument Approach Procedure (SIAP) to serve flights operating into the Lee Airport during Instrument Flight Rules (IFR) conditions make this action necessary. Controlled airspace extending upward from 700 feet Above Ground Level (AGL) is needed to contain aircraft executing an approach. The area would be depicted on aeronautical charts for pilot reference.

**DATES:** Comments must be received on or before June 3, 2002.

**ADDRESSES:** Send comments on the proposal in triplicate to: Manager, Airspace Branch, AEA-520, Docket No. 02-AEA-01 FAA Eastern Region, 1 Aviation Plaza, Jamaica, NY, 11434-4809.

The official docket may be examined in the Office of the Regional Counsel, AEA-7, FAA Eastern Region, 1 Aviation Plaza, Jamaica, NY, 11434-4809.

An informal docket may also be examined during normal business hours in the Airspace Branch, AEA-520, FAA Eastern Region, 1 Aviation Plaza, Jamaica, NY, 11434-4809.

**FOR FURTHER INFORMATION CONTACT:** Mr. Francis T. Jordan, Jr., Airspace Specialist, Airspace Branch, AEA-520 FAA Eastern Region, 1 Aviation Plaza,

Jamaica, NY, 11434-4809; telephone: (718) 553-4521.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

Interested parties are invited to participate in this proposed rulemaking by submitting such written data, views, or arguments as they may desire. Comments that provide the factual basis supporting the views and suggestions presented are particularly helpful in developing reasoned regulatory decisions on the proposal. Comments are specifically invited on the overall regulatory, economic, environmental, and energy-related aspects of the proposal. Communications should identify the airspace docket number and be submitted in triplicate to the address listed above. Commenters wishing the FAA to acknowledge receipt of their comments on this notice must submit with those comments a self-addressed, stamped postcard on which the following statement is made:

"Comments to Airspace Docket No. 02-AEA-01". The postcard will be date/time stamped and returned to the commenter. All communications received on or before the closing date for comments will be considered before taking action on the proposed rule. The proposal contained in this notice may be changed in light of comments received. All comments submitted will be available for examination in the Rules Docket closing both before and after the closing date for comments. A report summarizing each substantive public contact with the FAA personnel concerned with this rulemaking will be filed in the docket.

##### Availability of NPRMs

Any person may obtain a copy of this Notice of Proposed Rulemaking (NPRM) by submitting a request to the Office of the Regional Counsel, AEA-7, FAA Eastern Region, 1 Aviation Plaza, Jamaica, NY, 11434-4809. Communications must identify the notice number of this NRPM. Persons interested in being placed on a mailing list for future NPRMs should also request a copy of Advisory Circular No. 11-2A, which describes the application procedure.

##### The Proposal

The FAA is considering an amendment to Part 71 of the Federal Aviation Regulations (14 CFR part 71) to establish Class E airspace area at Annapolis, MD. The development of a SIAP to serve flights operating into the airport under Instrument Flight Rules (IFR) make this action necessary. Controlled airspace extending upward