Proposed Rules

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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 Part 25

[Docket No. NM450; Special Conditions No. 25–11–08–SC]

Special Conditions: Boeing Model 747–8 Series Airplanes; Stairway Between the Main Deck and Upper Deck

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed special conditions.

SUMMARY: This notice proposes special conditions for the Boeing Model 747–8 airplane. This airplane will have novel or unusual design features when compared to the state of technology envisioned in the airworthiness standards for transport category airplanes. These design features include a stairway between the main deck and upper deck. These proposed special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards. Additional special conditions will be issued for other novel or unusual design features of the Boeing 747–8 airplanes.

DATES: Comments must be received on or before May 2, 2011.

ADDRESSES: Comments on this proposal may be mailed in duplicate to: Federal Aviation Administration, Transport Airplane Directorate, Attention: Rules Docket (ANM–113), Docket No. NM450, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; or delivered in duplicate to the Transport Airplane Directorate at the above address. All comments must be marked Docket No. NMXX. Comments may be inspected in the Rules Docket weekdays, except Federal holidays, between 7:30 a.m. and 4 p.m.

FOR FURTHER INFORMATION CONTACT: Jayson Claar, FAA, Airframe and Cabin Safety Branch, ANM–115, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; telephone (425) 227–2194; facsimile (425) 227–1232.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites interested persons to participate in this rulemaking by submitting written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any recommended change, and include supporting data. We ask that you send us two copies of written comments.

We will file in the docket all comments we receive as well as a report summarizing each substantive public contact with FAA personnel concerning these proposed special conditions. The docket is available for public inspection before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this notice between 7:30 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive on or before the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change the proposed special conditions based on comments we receive.

If you want the FAA to acknowledge receipt of your comments on this proposal, include with your comments a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On November 4, 2005, The Boeing Company, PO Box 3707, Seattle, WA, 98124, applied for an amendment to Type Certificate Number A20WE to include the new Model 747–8 series passenger airplane. The Model 747–8 is a derivative of the 747–400. The Model 747–8 is a four-engine jet transport airplane that will have a maximum takeoff weight of 975,000 pounds, new General Electric GEnx –2B67 engines, and the capacity to carry 605 passengers.

Type Certification Basis

Under the provisions of Title 14, Code of Federal Regulations (14 CFR) 21.101, Boeing must show that the Model 747–8 (hereafter referred as 747–8) meets the applicable provisions of part 25, Amendments 25–1 through 25–120, plus amendment 25–127 for § 25.795(a), except for earlier amendments as agreed upon by the FAA. These regulations will be incorporated into Type Certificate No. A20WE after type certification approval of the 747–8.

In addition, the certification basis includes other regulations, special conditions and exemptions that are not relevant to these proposed special conditions. Type Certificate No. A20WE will be updated to include a complete description of the certification basis for these airplanes.

If the Administrator finds that the applicable airworthiness regulations (*i.e.,* 14 CFR part 25) do not contain adequate or appropriate safety standards for the 747–8 because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model or series that incorporates the same or similar novel or unusual design feature, or should any other model or series already included on the same type certificate be modified to incorporate the same or similar novel or unusual design feature, the special conditions would also apply to the other model or series under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the 747–8 must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36.

Special conditions, as defined in § 11.19, are issued under § 11.38, and become part of the type certification basis under § 21.101.

New or Unusual Design Features

The Boeing Model 747–8 will incorporate the following novel or unusual design features: The 747–8 design offers seating capacity on two separate decks: The main deck with a maximum passenger capacity of 495 and the upper deck with a maximum

passenger capacity of 110. Occupants can move between decks via a staircase located near door 2 on the main deck of the airplane in the forward part of the cabin. With large seating capacities on the main deck and upper deck of the 747–8, the stairway must be designed to support evacuation between decks of the airplane in an in-flight emergency.

Discussion

The regulations governing the certification of the 747–8 do not adequately address the certification requirements for a two-deck passenger airplane. The Airbus A380–800 and all of the earlier Boeing 747 passenger airplane models were certified with seating capacity on two separate decks. When the seating capacity of the upper deck of the Boeing 747 exceeded 24 passengers, the FAA issued Special Condition No. 25–61–NW–1 for a maximum seat capacity of 32 passengers on the upper deck for take-off and landing. A second set of special conditions, Special Condition No. 25–71–NW–3, was issued to include airplanes up to a maximum seating capacity of 45 passengers on the upper deck for take-off and landing. The second set of special conditions was modified to address airplanes with a maximum seating capacity of 110 passengers on the upper deck for take-off and landing. Special Conditions No. 25–326–SC for the Airbus A380–800 allowed a seating capacity on two separate decks: The main deck with a maximum passenger capacity of 542 and the upper deck with a maximum passenger capacity of 308. Although these previously issued special conditions for the A380–800 provided a starting point for developing the 747–8 special conditions, the proposed 747–8 special conditions are specific to the unique aspects of this airplane's design.

The regulations do not adequately address a passenger airplane with separate decks for passenger occupancy, thus the FAA considers this to be a novel design. Therefore, the FAA is proposing that special conditions, in addition to the requirements of §§ 25.803 and 25.811 through 25.813, are required to address the proposed design.

Applicability

As discussed above, these proposed special conditions are applicable to Boeing Model 747–8 airplanes. Should Boeing apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design features, these proposed special conditions would apply to that model as well under the provisions of § 21.101.

Conclusion

This action affects only certain novel or unusual design features of the Boeing Model 747–8 airplane. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these Special Conditions is as follows:

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

The Proposed Special Conditions

Accordingly, the Federal Aviation Administration (FAA) proposes the following special conditions as part of the type certification basis for the Boeing 747–8 airplanes.

1. The stairway must have essentially straight route segments with a landing at each significant change in segment direction.
2. The stairway must have essentially rectangular treads.
3. With the airplane in level attitude and in each attitude resulting from the collapse of one or more legs of the landing gear, the stairway must have entrance, exit, and gradient characteristics that allow the upper deck passengers, with assistance from a crewmember, to merge with passengers on the main deck during an emergency evacuation and exit the airplane through a main deck exit. This must be shown by demonstration, tests, analysis, or any combination thereof.
4. The stairway must accommodate the carriage of an incapacitated occupant from the upper deck to the main deck. The crewmember procedures for such carriage must be established and included in the airplane flight manual.
5. The stairway must be located to provide occupants an adequate descent rate under probable emergency conditions, including a condition in which an occupant falls or is incapacitated while on the stairway.
6. The stairway must be designed and located to minimize damage to its structure during an emergency landing or ditching.
7. General illumination must be provided so, when measured along the center lines of each tread and landing, the illumination is not less than 0.05 foot-candle. This is in lieu of compliance with § 25.812(c), at Amendment 25–116.
8. Means must be provided to assist passengers in locating the stairway in dense smoke conditions as part of compliance with § 25.811(c), at Amendment 25–88.
9. An emergency exit sign meeting § 25.812(b)(1)(i), at Amendment 25–116, must be provided in the upper deck near the stairway visible to passengers approaching along the main aisle as required by § 25.811(d)(1), at Amendment 25–88.
10. Floor proximity lighting required by § 25.812(e), at Amendment 25–120, must be provided along the stairs.
11. When passengers occupy the upper deck, at least one flight attendant must also be present during taxi, take-off, and landing.
12. The stairway must have a handrail on at least one side to allow occupants to steady themselves during foreseeable conditions, including but not limited to, gear collapse on the ground and moderate turbulence in flight. The handrail(s) must be constructed so there is no obstruction on them that will cause the user to release his/her grip or hinder the continuous movement of the hands along the handrail. Handrail(s) must be terminated in a manner that will not interfere with occupants walking by or create a hazard (such as catching clothing). Boeing must demonstrate that the design can accommodate the stature of a fifth percentile female and a ninety-fifth percentile male.
13. The public address system must be intelligible in the stairway during all flight phases.
14. "No smoking" and "return to seat" signs must be installed and visible in the stairway both going up and down and at the stairway entrances.

Issued in Renton, Washington, on March 9, 2011.

K.C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2010–1232; Airspace Docket No. 10–AEA–28]

Proposed Amendment of Class E Airspace; Waynesboro, VA

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This action proposes to Amend Class E Airspace at Waynesboro,