DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2019–0283; Special Conditions No. 25–326A–SC]

Special Conditions: Airbus Model A380 Airplanes; Stairways Between Decks

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final amended special conditions.

SUMMARY: These amended special conditions are issued for the Airbus Model A380 airplane. By issuance of this amendment to the special condition, the FAA is correcting an error that appeared in the **Federal Register** on August 28, 2006, for Special Conditions No. 25–326–SC, Docket No. NM314. 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. This design feature is associated with the complex systems and the configuration of the airplane, including its full-length double deck. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These 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.

DATES: Effective September 23, 2019.

FOR FURTHER INFORMATION CONTACT: Dan Jacquet, Airframe and Cabin Safety Section, AIR–675, Transport Standards Branch, Policy and Innovation Division, Aircraft Certification Service, Federal Aviation Administration, 2200 South 216th Street, Des Moines, Washington 98198; telephone and fax 206–231–3208; email *Daniel.Jacquet@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

Airbus requested an amendment to Special Condition No. 25–326–SC in letter L2578ME1831060 revision 1, dated November 21, 2018. This letter states:

The Special Conditions applicable to the stairways on full-length double-deck airplane were extensively discussed in the Very Large Transport Aircraft conference, on October 1998 in Noordwijkerhout, The Netherlands and in the Cabin Safety Meeting between FAA, EASA, and Airbus, held in Hamburg, Feb. 25, 2003. In the latter meeting, the Special Conditions have been aligned.

However, Airbus noticed that the Special Conditions for the availability of stairs published in the **Federal Register** (Special Condition No. 25–326–SC from September 11, 2006) require more when compared to Special Conditions of IP–C1 Stage 4 Airbus received June 13, 2003.

Special Condition No. 25–326–SC reads:

a. At least one stairway between decks must meet the following requirements: The stairway accommodates the carriage of an incapacitated person from one deck to the other. The crew member procedures for such carriage must be established.

b. There must be at least two stairways between decks that meet the following requirements: The stairways must be designed such that evacuees can achieve an adequate rate for going down or going up under probable emergency conditions, including a condition in which a person falls or is incapacitated while on a stairway. One of the stairways must be the stairway specified in paragraph a. above.

For whatever reasons, the consideration of the condition in which a person falls or is incapacitated while on the stairs re-appears. Resulting from the A380 Certification Meeting held in Hamburg this was agreed to be not required by the IP.

It was the FAA position that this type of demonstration is not required for the main passenger aisle in the airplane and therefore should not be required for the stairways.

The Stage 4 of the IP–C1, dated February 25, 2003 received for A380 Type Certificate thus reads as follows:

A. At least two stairways between decks must meet the following requirements:

(1) At least one of the stairways must accommodate the carriage of an incapacitated person from one deck to the other. The crew member procedures for such a carriage must be established.

(2) The stairways must be designed such that evacuees can be shown to achieve an adequate rate, for going down or going up, under probable emergency conditions.

All further Special Conditions published in the **Federal Register** (§§ c though e) are identical to the Special Conditions of the IP (§§ B though D), however using a different wording.

Since the IP–C1, Stage 4 is the bilateral agreement between FAA and Airbus, and the **Federal Register** is available to the public, Airbus would appreciate the correction of the Special Condition published in the **Federal Register** under 25–326–SC. This would avoid any misunderstanding in the A380 future.

During initial discussions with Airbus regarding the special conditions, the FAA had included a requirement that the stairways be designed such that evacuees can achieve an adequate rate going down or up under probable emergency conditions, including a condition in which a person falls or is incapacitated while on the stairway. Airbus agreed with the requirement except for the portion pertaining to a person falling or being incapacitated. The FAA documented agreement with Airbus's position. Unfortunately the special conditions were issued with the FAA's initial proposal rather than the final agreement, and stated that the stairs be designed such that evacuees can achieve an adequate rate going up or down the stairs under probable emergency conditions including a condition in which a person falls or is incapacitated while on the stairway.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Airbus must show that the Model A380 airplane meets the applicable provisions of 14 CFR part 25, as amended by Amendments 25–1 through 25–98. If the Administrator finds that the applicable airworthiness regulations do not contain adequate or appropriate safety standards for the Airbus Model A380 airplane because of novel or unusual design features, special conditions are prescribed under the provisions of 14 CFR 21.16.

In addition to the applicable airworthiness regulations and special conditions, the Airbus Model A380 airplane 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 14 CFR 11.19, are issued in accordance with 14 CFR 11.38 and become part of the type certification basis in accordance with 14 CFR 21.17(a)(2).

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 that incorporates the same novel or unusual design feature, the special conditions would also apply to the other model under the provisions of 14 CFR 21.101.

Novel or Unusual Design Features

The Airbus Model A380 airplane will incorporate the following novel or unusual design features: This airplane has a full-length double deck. For these design features, the applicable airworthiness regulations do not contain adequate or appropriate safety standards regarding stairways between decks.

Discussion

The Model A380 airplane incorporates seating on two full-length passenger decks, each of which has the capacity of a typical wide body airplane. Two staircases, one located in the front of the cabin and one located in the rear, allow for the movement of persons between decks. With large seating capacities on the main deck and the upper deck of the Model A380 airplane, the staircases need to be able to support movement between decks in an inflight emergency. In addition, although

compliance with the evacuation demonstration requirements of § 25.803 does not depend on the use of stairs, there must be a way for passengers on one deck to move to the other deck during an emergency evacuation. This need must be addressed in the certification of the airplane.

The regulations governing the certification of the Model A380 airplane do not adequately address a passenger airplane with two separate full-length decks for passengers. The Boeing Model 747 and the Lockheed Model L–1011 airplanes were certificated with limited seating capacity on two separate decks, and special conditions were issued to certificate those arrangements. When the seating capacity of the upper deck of the Boeing Model 747 airplane exceeded 24 passengers, the FAA issued Special Conditions 25–61–NW–1 for a maximum seating capacity of 32 passengers on the upper deck for take-off and landing. A second set of Special Conditions, 25–71–NW–3, was issued to cover airplanes with a maximum seating capacity of 45 passengers on the upper deck for take-off and landing. That second set of Special Conditions was later modified to address airplanes with a maximum seating capacity of 110 passengers on the upper deck. These previously issued special conditions provided a starting point for the development of special conditions for the Model A380 airplane.

In the case of both the Model L–1011 and the Model 747 airplanes, the special conditions were based on the requirements and associated level of safety in place at the time of application for type certificate. The requirements and the level of safety have improved significantly since that time, and these special conditions reflect those improvements.

In addition to the requirements of §§ 25.803 and 25.811 through 25.813, special conditions are needed to address the movement of passengers between the two full-length decks on the Model A380 airplane. These special conditions provide additional requirements for the stairways to ensure the safe passage of occupants between decks during moderate turbulence, an inflight emergency, or an emergency evacuation.

The 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.

Discussion of Comments

The FAA issued Notice of Proposed Amended Special Conditions No. 25–19–04–SC for the Airbus Model A380 airplane, which was published in the **Federal Register** on May 3, 2019 (84 FR 18997). The FAA received a response from one commenter.

The commenter feels that stairwells should be designed for ingress and egress above the minimum standards identified in the special condition. However, the commenter did not propose any additional standard that Airbus should meet nor specify why meeting the minimum standards, of the special condition, was unsafe. As a result, no changes have been made to the special condition.

Applicability

As discussed above, these special conditions are applicable to the Airbus Model A380 airplane. Should Airbus 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 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 Airbus Model A380 airplane. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

Authority Citation

The authority citation for these special conditions is as follows:

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

The Special Conditions

■ Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for the Airbus Model A380 airplane.

Airbus Model A380, Stairways Between Decks

1. At least one stairway between decks must meet the following requirements:

The stairway accommodates the carriage of an incapacitated person from one deck to the other. The crew member procedures for such carriage must be established.

2. There must be at least two stairways between decks that meet the following requirements: The stairways must be designed such that evacuees can achieve an adequate rate for going down or going up under probable emergency conditions. One of the stairways must be the stairway specified in paragraph 1. above.

3. Each stairway between decks must meet the following requirements:

a. It must have an entrance, exit, and gradient characteristics that, with the assistance of a crew member, would allow the passengers of one deck to merge with passengers of the other deck during an evacuation and exit the airplane. These entrance, exit, and gradient characteristics must occur with the airplane in level attitude and in each attitude resulting from the collapse of any one or more legs of the landing gear. These requirements must be demonstrated by tests or analysis.

b. The stairway must have a handrail on at least one side in order to allow people to steady themselves during foreseeable conditions, including but not limited to the condition of gear collapse on the ground and moderate turbulence in flight. The handrails must be constructed so that there will be no obstruction on them which will cause the user to release their grip on the handrail, or will hinder the continuous movement of the hands along the handrail. Handrails must be terminated in a manner which will not obstruct pedestrian travel or create a hazard. Adequacy of the design must be demonstrated by using persons representative of the 5% female and the 95% male.

c. The stairway must be designed and located to minimize damage to it during an emergency landing or ditching.

d. The stairway must have a wall or the equivalent on each side to minimize the risk of falling and to facilitate use of the stairway under conditions of abnormal airplane attitude.

e. Treads and landings must be designed and demonstrated to be free of hazard. The landing area at each deck level must be demonstrated to be adequate in terms of flow rate for the maximum number of people that will be using the stair in an emergency. Treads and risers must be designed to ensure an easy and safe use of the stairway.

f. General emergency illumination must be provided so that, when measured along the centerlines of each tread and landing-, the illumination is not less than 0.05 foot-candle.

g. In normal operation, the general illumination level must not be less than 0.05 foot-candles. The assessment must be done under daylight and dark of night conditions.

h. Both stairway ends must be indicated by an exit sign visible to passengers when in the stairway. This exit sign must meet the requirements of § 25.812(b)(1)(ii).

i. A floor-proximity path-marking system, which meets the requirements of § 25.812(e), must be available to guide passengers in the stairway to the stairway ends. It must not direct the occupants of the cabin to the stair entrance.

j. The public address system must be audible in the stairway during all flight phases.

k. ''No smoking'' and ''return to seat'' signs must be installed and must be visible in the stairway both going up and down, and at the stairway entrances.

4. Cabin crew procedures and positions must be established to manage the use of the stairs on the ground and in flight under both normal and emergency situations. This may require that cabin crew members have specific dedicated duties for the management of the stairs during emergency and precautionary evacuations.

5. It should not be hazardous for crew members or passengers who are returning to their seats to use the stairways during moderate turbulence.

Issued in Des Moines, Washington, on August 16, 2019.

Mary A. Schooley,

Acting Manager, Transport Standards Branch, Policy and Innovation Division, Aircraft Certification Service.

[FR Doc. 2019–18061 Filed 8–21–19; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2019–0606; Product Identifier 2019–NM–120–AD; Amendment 39–19706; AD 2019–16–03]

RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Airbus SAS Model A350–941 and –1041 airplanes. This AD was prompted by a report of a front engine mount primary pin which moved axially out of place; investigation revealed that incorrect washers had been installed on the engine mount pins. This AD requires a one-time inspection of the washers installed on the front and rear engine mount primary pins and thrust link pins of both engines, depending on configuration, and corrective actions if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective September 6, 2019.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of September 6, 2019.

The FAA must receive comments on this AD by October 7, 2019.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For the material incorporated by reference (IBR) in this AD, contact the EASA, at Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 89990 1000; email *ADs@easa.europa.eu;* internet *www.easa.europa.eu.* You may find this IBR material on the EASA website at *https://ad.easa.europa.eu.* You may view this IBR material at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available in the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2019–0606.

Examining the AD Docket

You may examine the AD docket on the internet at *http://www.regulations.gov* by searching for and locating Docket No. FAA–2019–0606; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kathleen Arrigotti, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax: 206–231–3218.

SUPPLEMENTARY INFORMATION:

Discussion

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2019–0175, dated July 19, 2019 (''EASA AD 2019–0175'') (also referred to as the Mandatory Continuing Airworthiness Information, or ''the MCAI''), to correct an unsafe condition for certain Airbus SAS Model A350–941 and –1041 airplanes. The MCAI states:

> A case was reported by an A350–1041 operator where a front engine mount primary pin had moved axially out of place. Investigations revealed that washers with incorrect P/N [part number] had been installed on the subject engine mount pins. A350–941 aeroplanes are also considered as potentially affected. The engine mount assembly has a fail-safe design, loads are carried by two links in the left-hand and right-hand positions and in case of failure, a ''fail-safe'' link pin in the centre position is activated and takes the loads.
>
> This condition, if not detected and corrected, may lead to disengagement of a primary engine mount pin, which along with an additional failure of the ''fail-safe'' link pin, could possibly result in in-flight detachment of an engine, with consequent reduced control of the aeroplane.
>
> To address this potential unsafe condition, Airbus issued the AOT [All Operators Transmission] to provide inspection instructions.
>
> For the reasons described above, this [EASA] AD requires a one-time inspection of the washers installed on the front and rear engine mount primary pins and thrust links pins of both engines, and depending on findings, accomplishment of applicable corrective action(s).

Related IBR Material Under 1 CFR Part 51

EASA AD 2019–0175 describes procedures for a one-time inspection of the washers installed on the front and rear engine mount primary pins and thrust link pins of both engines, depending on configuration, and corrective actions. Corrective actions include replacing any affected washer with a serviceable part and repair.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

FAA's Determination

This product has been approved by the aviation authority of another