reaction found with the undercarriage unit in question supported at the jacking points with the aircraft in the unjacked position. This load must be applied in combination with the vertical loads arising from the analysis of (a) above.

Part II

Jacking equipment used for the airplane jacking operation must be controlled by a specification that assures that jacking operations are conducted in a manner that is consistent with the provisions of this special condition. Jacking instructions must be developed and incorporated in the Instructions for Continued Airworthiness to assure that the proper jacking equipment is used and that the jacking operation is conducted in a manner consistent with the provisions of this special conditions. The jacking instructions may be by means of placards conspicuously located near the jacking points or by other suitable means acceptable to the Administrator.

Issued in Renton, Washington, on July 20, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6–13789 Filed 8–18–06; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM342; Special Condition No. 25–323–SC]

Special Conditions: Airbus Model A380–800 Airplane, Extendable Length Escape System

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Airbus A380–800 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. Many of these novel or unusual design features are associated with the complex systems and the configuration of the airplane, including its full-length double deck. For these design features, the applicable airworthiness regulations do not contain adequate or appropriate safety standards regarding extendable length escape slides. 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. Additional special conditions will be issued for other novel or unusual design features of the Airbus Model A380–800 airplane.

DATES: *Effective Date:* The effective date of these special conditions is July 20, 2006.

FOR FURTHER INFORMATION CONTACT: Holly Thorson, FAA, International Branch, ANM–116, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–1357; facsimile (425) 227–1149.

SUPPLEMENTARY INFORMATION:

Background

Airbus applied for FAA certification/validation of the provisionally-designated Model A3XX–100 in its letter AI/L 810.0223/98, dated August 12, 1998, to the FAA. Application for certification by the Joint Aviation Authorities (JAA) of Europe had been made on January 16, 1998, reference AI/L 810.0019/98. In its letter to the FAA, Airbus requested an extension to the 5-year period for type certification in accordance with 14 CFR 21.17(c). The request was for an extension to a 7-year period, using the date of the initial application letter to the JAA as the reference date. The reason given by Airbus for the request for extension is related to the technical challenges, complexity, and the number of new and novel features on the airplane. On November 12, 1998, the Manager, Aircraft Engineering Division, AIR–100, granted Airbus' request for the 7-year period, based on the date of application to the JAA.

In its letter AI/LE–A 828.0040/99 Issue 3, dated July 20, 2001, Airbus stated that its target date for type certification of the Model A380–800 had been moved from May 2005, to January 2006, to match the delivery date of the first production airplane. In a subsequent letter (AI/L 810.0223/98 issue 3, dated January 27, 2006), Airbus stated that its target date for type certification is October 2, 2006. In accordance with 14 CFR 21.17(d)(2), Airbus chose a new application date of December 20, 1999, and requested that the 7-year certification period which had already been approved be continued. The FAA has reviewed the part 25 certification basis for the Model A380–800 airplane, and no changes are required based on the new application date.

The Model A380–800 airplane will be an all-new, four-engine jet transport airplane with a full double-deck, two-aisle cabin. The maximum takeoff weight will be 1.235 million pounds with a typical three-class layout of 555 passengers.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Airbus must show that the Model A380–800 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 A380–800 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 A380–800 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. In addition, the FAA must issue a finding of regulatory adequacy pursuant to section 611 of Public Law 93–574, the ''Noise Control Act of 1972.''

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), Amendment 21–69, effective September 16, 1991.

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.

Discussion of Novel or Unusual Design Features

The Airbus Model A380–800 airplane has 16 emergency exits and 16 escape slides to be used for evacuation of passengers in case of emergency. Of these, 14 are fixed-length escape slides, and two (at door M1) are extendable length escape slides. The extendable length escape slides have a 16-foot extension packed at the toe.

Typically, airplanes have fixed length escape slides. However, it was not possible to use fixed length escape slides for the A380 door M1 because of the extreme difference between normal sill height and high sill height associated with collapse of some of the

landing gear in an emergency. Some combinations of landing gear collapse could cause the airplane to tip back on its tail.

On the door, there is an electronic sensor that evaluates the attitude of the airplane and determines whether the extension is needed. During normal operation, the extension remains packed at the toe end of the escape slide. When the extension is needed, the system sends a signal to a squib that allows the extension to be inflated during deployment. If the system detects that the slide extension has failed to deploy, a warning is activated that tells the flight attendants that the slide should not be used. The warning will also activate—if after initial deployment of the slide without the extension deploying—the attitude of the airplane changes to the extent that the extension should be deployed. The slide system design cannot accommodate deploying the extension after deployment of the main body of the slide.

The performance requirements for escape systems are contained in 14 CFR 25.810 and address several abnormal operating conditions as well as failure conditions and reliability. The requirements of § 25.810 remain applicable for the slide in the unextended mode, and for the most part, in the extended mode. The special conditions indicate where the requirements differ from the requirements of § 25.810 for the slide in the extended mode.

The extension is intended only for use at high sill heights. A typical fixed-length slide operating at high sill height does not satisfy all of the performance requirements of § 25.810, but its variations in performance are understood and largely predictable. Certain performance criteria are valid regardless of sill height, whereas other aspects of performance can be expected to decline at higher sill heights. With an extendable slide, there is a step change in configuration and potentially a step change in performance.

Therefore, special conditions are needed to ensure acceptable performance in the extended mode. Section 25.810 specifies the basic performance requirements for escape slides including wind testing, repeatability testing, and testing at adverse sill heights. Section 25.1309(a) requires that systems perform under foreseeable operating conditions, such as extreme temperatures, and a demonstration that the system design is appropriate for its intended function. Standards for the equipment itself are contained in Technical Standard Order C69c and contribute to a satisfactory installation.

Existing 14 CFR part 25 regulations governing the certification of the A380 do not adequately address certification requirements of an extendable length escape slide. The FAA is proposing special conditions to ensure that an extendable length escape slide performs adequately in both the unextended and the extended configuration.

Technical Standard Order C69c addresses many detailed aspects of escape slide performance that are not specified in 14 CFR 25 but are generally considered essential to assuring adequate escape slide performance. These special conditions supplement the requirements of 14 CFR 25, for the slide in its extended mode. However, because of the novel nature of this design, the special conditions will require that the escape slide receive TSO authorization or satisfy an equivalent standard.

Wind tests are typically conducted only on fixed length slides at normal sill height. Since the regulations require that the 25 knot standard is met at the most critical wind angle, escape slides usually exceed 25 knots performance at other than the critical angle. The same is expected to be true of the slide in its extended mode, but some reduction in the required wind velocity is appropriate since the slide will be in an abnormal condition. Available data indicates that a value of 22 knots is appropriate to cover the slide in its extended mode at normal sill height. This corresponds to roughly 75% of the wind energy required for the slide in its normal attitude and will ensure that the slide can function in its extended mode at least as well as a fixed length slide under similar abnormal conditions.

The special conditions also specify a rate for evacuation of passengers which is consistent with that of fixed length escape slides.

Discussion of Comments

Notice of Proposed Special Conditions No. 25–06–03–SC, pertaining to the extendable length escape system for the Airbus A380 airplane, was published in the **Federal Register** on March 29, 2006. Comments were received from The Boeing Company and the Airline Pilots Association (ALPA).

Requested change No. 1: ALPA states, ''The proposed language of * * * Special Condition [3] appears to address only one aspect of the current rule (wind velocity). The remaining elements of 25.810(a)(1)(iv) should continue to apply.'' ALPA adds, ''Given that FAR part 25.810 provides that non-extendable slides have a 25 knot wind requirement at the most critical angle (with all gear extended), those same requirements must exist for the A380 extendable slide in its normal configuration or an equivalent wind requirement in its extended configuration.'' According to the commenter, ''* * * aircraft may be operated in winds greater than 25 knots, which suggests that a zone of risk remains unaddressed * * *. The special condition should intend to ensure the slide is able to perform the same point as required for other slides in service, which means that the slide and door sill should be configured as expected in actual service, and then the 25 knot wind should be applied at the most critical angle.

FAA response: The purpose of Special Condition 3 is to specify a reasonable criterion for the slide in an abnormal condition. There is no such criterion for typical fixed length escape slides, but they can be presumed to have less tolerance to wind when at adverse attitude than at normal attitude. Therefore, applying the same criterion to the slide in both the unextended and extended modes would be beyond what is done for a typical slide. The specific 22 knot criterion was arrived at empirically and is consistent with, if not beyond, the capabilities of a typical slide when at adverse attitude. Regarding the other aspects of § 25.810(a)(1)(iv), see the FAA response to Requested change No. 2.

Requested change No. 2: The Boeing Company also comments on proposed Special Condition 3, suggesting that the text be changed to be similar to that in § 25.810(a)(1)(iv).

FAA response: The FAA agrees and has changed the wording to align more closely with the language of § 25.810(a)(1)(iv).

Requested change No. 3: ALPA points out that proposed Special Condition 5 specifies that a slide extension warning be available for ten minutes after the airplane comes to rest, but does not specify a minimum activation time for the warning. ALPA suggests that the special condition require that ''* * * the 'slide extension' warning must be such that the cabin crew is immediately made aware of a non usable slide * * *.''

FAA response: The FAA agrees and, accordingly, has changed the wording of Special Condition 5.

Requested change No. 4: The Boeing Company comments on proposed Special Condition 2, as follows:

''The required evacuation rate of 45 persons per minute should be specified as the combined *average* rate of all test

runs to ensure that it will not be applied as a minimum threshold for each test run.

FAA response: Special Condition 2 requires that Airbus demonstrate that the extendable length escape slide can achieve an evacuation rate of 45 persons per minute, but does not specify that any and every evacuation test must achieve that rate. Using the average of tests may be one way to demonstrate the specified rate, but it is not necessary to specify that as the only means.

Requested change No. 5: Boeing further comments that proposed Special Condition 2 should specify that, ''with the exception of the sill height and the required average evacuation rate for this test series, all the other test conditions in Technical Standard Order TSC–C69C, paragraph 5.4, (Basic Test Conditions), apply.''

FAA response: This matter is addressed in Special Condition 1, which specifies that ''The extendable escape slide must receive TSO C69c authorization or the equivalent.''

Except for the changes discussed above, the special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions are applicable to the Airbus A380–800 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 A380–800 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 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 A380–800 airplane.

In addition to the provisions of 14 CFR part 25, the following special conditions apply:

1. The extendable escape slide must receive TSO C69c authorization or the equivalent.

2. In addition to the requirements of § 25.810(a)(1)(iii) for usability in conditions of landing gear collapse, the deployed escape slide in the extended mode must demonstrate an evacuation rate of 45 persons per minute per lane at the sill height corresponding to activation of the extension.

3. In lieu of the requirements of § 25.810(a)(1)(iv), the escape slide must be capable of being deployed in the extended mode, and with the assistance of one person, remain usable in 22 knot winds directed from the critical angle, with the airplane on all its landing gear.

4. Pitch sensor tolerances and accuracy must be taken into account when demonstrating compliance with § 25.1309(a) for the escape slide in both the extended and unextended modes.

5. There must be a ''slide extension'' warning such that the cabin crew is immediately made aware of a non usable slide (i.e., the main slide has deployed and the door sill height is such that the extension should be deployed but cannot be deployed), even if this is due to the airplane attitude changing during the evacuation. The ability to provide such a warning must be available for ten minutes after the airplane is immobilized on the ground.

Issued in Renton, Washington, on July 20, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM319; Special Conditions No. 25–321–SC]

Special Conditions: Airbus Model A380–800 Airplane, Crashworthiness

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Airbus A380–800 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. Many of these novel or unusual design features are associated with the complex systems and the configuration of the airplane, including its full-length double deck. For these design features, the applicable airworthiness regulations do not contain adequate or appropriate safety standards regarding crash survivability. 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. Additional special conditions will be issued for other novel or unusual design features of the Airbus Model A380–800 airplane.

DATES: *Effective Date:* The effective date for these special conditions is July 24, 2006.

FOR FURTHER INFORMATION CONTACT: Holly Thorson, FAA, International Branch, ANM–116, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue, SW., Renton, Washington 98055–4056; telephone (425) 227–1357; facsimile (425) 227–1149.

SUPPLEMENTARY INFORMATION:

Background

Airbus applied for FAA certification/validation of the provisionally-designated Model A3XX–100 in its letter AI/L 810.0223/98, dated August 12, 1998, to the FAA. Application for certification by the Joint Aviation Authorities (JAA) of Europe had been made on January 16, 1998, reference AI/L 810.0019/98. In its letter to the FAA, Airbus requested an extension to the 5-year period for type certification in accordance with 14 CFR 21.17(c).

The request was for an extension to a 7-year period, using the date of the initial application letter to the JAA as the reference date. The reason given by Airbus for the request for extension is related to the technical challenges, complexity, and the number of new and novel features on the airplane. On November 12, 1998, the Manager, Aircraft Engineering Division, AIR–100, granted Airbus' request for the 7-year period, based on the date of application to the JAA.

In its letter AI/LE–A 828.0040/99 Issue 3, dated July 20, 2001, Airbus stated that its target date for type certification of the Model A380–800 had been moved from May 2005, to January 2006, to match the delivery date of the first production airplane. In a subsequent letter (AI/L 810.0223/98 issue 3, dated January 27, 2006), Airbus stated that its target date for type certification is October 2, 2006. In accordance with 14 CFR 21.17(d)(2), Airbus chose a new application date of December 20, 1999, and requested that the 7-year certification period which had already been approved be continued. The FAA has reviewed the