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.

[FR Doc. E6–13780 Filed 8–18–06; 8:45 am]

BILLING CODE 4910–13–P

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

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).

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, or should any other model already included on the same type certificate be modified to incorporate the same novel or unusual design features, 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

With its complex configuration, including a full-length double deck, the Model A380 airplane has a novel and unusual design relative to large transport category airplanes which have been previously certificated under 14 CFR part 25. The A380 should provide a level of crash survivability which is at least equivalent to that demonstrated for such conventional large transport airplanes. However, its size and configuration could cause the airplane to be subject to effects of scale that decrease the ability of the occupants to survive a crash landing, compared to the occupants of those conventional airplanes.

Currently, 14 CFR 25.561 contains design load conditions covering emergency landings or minor crash landings for the local structures which support passengers, equipment, cargo, and other large items of mass in the passenger compartment. However, neither 14 CFR 25.561 nor any other part 25 requirements address the structural capability of the airframe as a whole in a crash landing. Service experience indicates that-even without specific regulatory requirements-the airframes of conventional transport category airplanes show reasonable structural capability in crash landings. Therefore, in the past we have not considered it necessary to specify design load conditions addressing the structural capability of the airplane as a whole in a crash landing.

The FAA, however, has no information to indicate whether an airplane the size and configuration of the A380 would provide reasonable airframe structural capability in a crash landing without a specific regulatory requirement. Therefore, the FAA is proposing special conditions which specify testing and analysis to ensure that the Model A380 provides a level of crash survivability equivalent to that of conventional large transport category airplanes. These special conditions address only the vertical loading of the fuselage. The longitudinal loading is not significantly different from that of a conventional transport category airplane and thus is adequately addressed by part 25.

For the special conditions, it is necessary to establish a reference point to compare the structural capability of the A380 airplane with the structural capability of current generation airplanes in a crash. This reference point is referred to as the ''Limit of Reasonable Survivability.'' It is defined—in terms of the vertical descent rate—as the level of structural degradation that would lead, either directly or by exceedance of physiological limits of the occupants, to a significant reduction in the probability of survival in an otherwise survivable incident. (An incident can be unsurvivable due to a non-structural cause, such as a fire. An otherwise survivable incident, then, is one in which no fire or other cause makes the incident unsurvivable.) We intend that this Limit of Reasonable Survivability be determined first for the current generation of the applicant's airplanes and then for the A380 to show that the latter has equal or better characteristics at the same vertical descent rate.

The special conditions contain a provision to ensure that the supporting airframe structure is strong and rigid enough to provide survivable living space and to hold seats, overhead bins, and other items of mass in place, even if the local attachment hardware is designed to exceed the minimum strength required by § 25.561. To provide this protection, the special conditions specify that the airframe structure must be able to support the loads imposed by items of mass, assuming that their local supporting structure does not fail, thus relieving the load on the supporting airframe structure. This assumption will ensure that the airframe structure will not collapse, even if the strength of the local attachment for items of mass exceeds the strength required by § 25.561. Since it is the airframe as a whole and its survivable living space that are the subject of these special conditions, the FAA does not intend to increase the strength requirements of § 25.561 by special condition. Therefore, the special conditions state explicitly that the attachments of items of mass need not be designed for static emergency landing loads in excess of those specified in § 25.561.

Since larger airframe structures typically have more volume within which to absorb energy, they normally provide occupants with reasonable protection from crash loads. Therefore, the effects of the A380 design on occupant loads are not expected to be significant. In order to confirm that this assumption is correct, these special conditions require an assessment of the effect of the design on the occupant loads. For the purposes of these special conditions, an analytical tool known as the Dynamic Response Index (DRI) is used to make the assessment. The DRI was developed through research and is documented in USAA VSCOM TR 89–D–22B, ''Aircraft Crash Survival Design Guide, Volume II, Aircraft Design Crash Impact Conditions and Human Tolerance.'' The DRI approximates the effect of an impact on spinal load. Based on the results of the assessment using DRI, any additional, detailed occupant load considerations can be established.

Discussion of Comments

Notice of Proposed Special Conditions No. 25–05–14–SC, pertaining to crashworthiness requirements for the Airbus A380 airplane, was published in the **Federal**

Register on August 9, 2005 (70 FR 46102). Comments were received from the Airline Pilots Association (ALPA), the Association of Flight Attendants (AFA), and the Boeing Company.

Requested change 1: ALPA addresses the first sentence in Section b. of the special conditions which specifies that, ''The occupants will be protected from the release of seats, overhead bins, and other items of mass due to structural deformation of the supporting structure * * * .''

ALPA states,

''Unless there is a procedure/system in place in revenue service that prevents the seat and bin from being loaded in excess of their rated limit, seats and bins under the requirements of Section b. must be tested within the full range of likely loads, not simply up to their rated limit. Overhead bins are notorious for failing in crash scenarios where the remainder of the cabin remains intact. In addition, the seat requirements for testing with only a 50th percentile male should be reconsidered to evaluate the full range of occupants, or at least the 5th to 95th percentile of humans.''

FAA response: Accommodating the changes requested by ALPA would be beyond the scope of this rulemaking. The purpose of the special condition is to assure that the large size and full length double deck configuration of the A380 design do not degrade the survivability characteristics of the A380 fuselage shell compared to designs for conventional large transport category airplanes. The purpose is not to create a higher safety standard for the A380.

To accomplish a proper comparison, the mass of items and the weight of passengers are defined in the same way as they would be for conventional airplane designs. Overhead bins are required to be evaluated for the rated bin load, and seats are required to be evaluated for the mass of a 50th percentile male occupant. To adopt a procedure to prevent a seat or bin from being loaded in excess of its rated design or to adopt a higher passenger weight for the evaluation of seat strength would represent a difference from the certification criteria used for conventional large transport category airplane designs.

Since the A380 is not unique or unusual with regard to these certification criteria, the requested changes are considered to be beyond the scope of this rulemaking. Accordingly, we have made no changes to the special conditions, as proposed.

Requested change 2: AFA recommends deleting Section c. of the special condition and all reference to use of the DRI as a measure of ''physiological limits'' of a crash. Instead, AFA suggests relying on Sections a., b., and d. for demonstrations of survivability.

AFA supports its recommendation with a detailed analysis of the development and use of the DRI and reaches the following conclusion:

> ''The DRI is useful, preferably with other criteria, to predict *minor to moderate injury* in ejection seats with occupants who are well restrained in the vertically seated posture, and possibly in crashes. The DRI has never shown the ability to predict survival (or anything else) in a crash that could *cause severe but not fatal injury*.''

FAA response: The DRI is being used as a metric to compare the occupant dynamic response in the Model A380 with that in other airplane designs; it is not being used as a criterion of injury. Section c. of the special condition states that the ''Dynamic Response Index experienced by the occupants will be no more severe than that experienced on conventional large transport airplanes.'' This comparison does not involve establishing an injury criterion for DRI. The FAA considers the DRI to be an appropriate metric for the comparative analysis required by the special condition. Since it is only the vertical loading that is simulated in the analysis, the one degree of freedom spring-mass model on which DRI is based is acceptable to the FAA. Accordingly, no change has been made to Section c. of the special condition, as proposed.

Requested change 3: AFA states, ''The proposed special condition[s] envision a simple vertical impact as the environment to compare the crashworthiness of the A380–800 airplane with that of 'conventional large transport airplanes.' The 'conventional large transport airplane' is not specifically designated.'' [1] AFA suggests that a simple vertical crash impact is insufficient to judge crashworthiness and recommends that, ''The impact conditions in the Special Conditions should reflect a representative crash environment that includes at least both vertical and longitudinal components. The conditions used in the Jamshidiat study (op. cit.) would be appropriate.'' According to AFA, the impact conditions studied by Jamshidiat et al. were much more realistic and severe than the simple vertical impact proposed by the special condition.

AFA also discusses the Department of Defense (DOD) Crash Protection Handbook, which summarizes critical findings of past crashworthiness studies. One of those findings is of particular concern for the A380–800 aircraft:

> ''For larger aircraft, the earth-scooping criteria associated with the low angle impact of Mil–Std–1290 were shown to be impractical. This conclusion was based on the fact that the requirement, which was based on G loading, would impose a severe weight penalty on large airframes (over approximately 20,000 pounds). The criteria described in Mil–Std–1290 were that, 'The nose section shall be designed to preclude any earth plowing and scooping tendency when the forward 25 percent of the fuselage has a uniformly applied local upward load of 10g and a rearward load of 4g or the ditching loads of Mil–A–8865A, whichever is the greatest.' ''

AFA states, ''Because of its size, it is doubtful if the A380–800 provides adequate protection against earth scooping. Earth scooping can disrupt the continuity of the bottom of the aircraft (e.g., the British Midlands 737 crash) and result in severe compromise of living space, and thus of survivability. It must be considered in any evaluation of crashworthiness.''

FAA response: The FAA agrees that a simple vertical crash impact is insufficient to judge overall crashworthiness, because (1) there is no agreed standard to judge an acceptable level of crashworthiness, and (2) the behavior of airplanes during minor crashes is highly complex and variable. However, that does not mean that meaningful crashworthiness evaluations cannot be made by isolating certain airplane characteristics that contribute to post crash survival, such as the ability of a fuselage to withstand crushing or collapse due to the vertical forces resulting from impact with the ground. This is the effect addressed by the A380 special condition.

While there are many factors that may influence the survivability of the fuselage, the FAA considers the ability of a fuselage to survive a vertical drop without crushing or collapse to be a major factor. In fact, the FAA has conducted vertical drop testing of actual fuselage sections for this very purpose, that is, to determine how current generation fuselages perform in a minor crash landing and to identify design features that affect their performance.

The demonstration required by this special condition is intended to show whether the A380, including the full length upper deck, is able to resist crushing or floor collapse in a vertical drop as well as other conventional large transport airplanes. The requirement to conduct this demonstration does not establish a higher level of safety for the A380. In terms of vertical descent rate,

[1] Airbus compared construction of the very large A380 to that of the ''conventional large'' A320 and A340 both of which are currently in production.

it provides for equivalence to the performance of existing large transport airplanes.

The FAA does not agree with AFA that the A380 analysis was overly unrealistic or has little value, compared to the study performed by Jamshidiat et al. The Jamshidiat study was performed for a different reason than this A380 special condition. Its purpose was to assess the effect of airplane size on the longitudinal and transverse acceleration loads experienced by occupants. The A380 special condition addresses the strength of the fuselage shell and its ability to avoid crushing due to vertical impact loading. The Jamshidiat study modeled the fuselage characteristics that are relevant for evaluating the longitudinal and transverse acceleration loads experienced by occupants. The A380 special condition addresses the characteristics of the fuselage construction that are relevant to its ability to avoid crushing. Therefore, the A380 special condition and the Jamshidiat study are complementary. In fact, the results of the Jamshidiat study support our assumption that the § 25.561 longitudinal accelerations are adequate for design of the A380 and, therefore, do not need to be addressed in the A380 special condition.

Finally, the FAA does not agree that the DOD crash handbook discussion of earth plowing/scooping indicates that it is doubtful that the A380–800 provides adequate protection against earth scooping. The comparison the DOD drew between large airplanes and small was between 737-size airplanes (typically greater than 140,000 pounds gross weight) and business jet or trainer size airplanes (typically smaller than 20,000 pounds gross weight), not between 737-size airplanes and A380-size airplanes (over 900,000 pounds gross weight).

We do not believe that any evidence indicates that the earth plowing/scooping behavior of an A380-size airplane will be more severe than for a 747-size airplane. In fact, a conclusion of the Jamshidiat report cited by AFA indicates that the opposite is probably true:

''The longitudinal crash deceleration was a function of the impact slope, the condition of the impact surface, the nature of obstacles and the relative radius of curvature of the fuselage cross section and the nose planform. The 747–400, with its larger radii of curvature and greater energy absorption of the lower fuselage structure has an inherent advantage over the 737–400 because obstacles do not follow scaling rules.''

The FAA agrees with this reasoning and by extension concludes that the A380 will have an inherent advantage over the 747 and can be expected to produce lower longitudinal crash decelerations because of its size.

Requested change 4: The Boeing Company suggests that the proposed special conditions be revised or withdrawn, stating the following:

''A requirement to show equivalency to an existing airplane is unprecedented and beyond the scope provided for by FAR 21.16 for Special Conditions. [Section] 21.16 allows special conditions to be issued 'to establish a level of safety equivalent to that established in the regulations.' It does not allow the FAA to issue special conditions to achieve a level of safety inherent in a past product design * * *''

''Existing Part 25 regulations already provide for the structural integrity and crashworthiness of the passenger cabin. To require the determination and comparison to other aircraft for the 'Limit of Reasonable Survivability' should be addressed with general rulemaking, as it is a general upgrade of the requirements that should apply to all aircraft types * * *. Since Part 25 already contains passenger static and dynamic survivability requirements, the upgrading of those requirements must come through general rulemaking and not special conditions.''

FAA response: The FAA does not agree with the commenter that this special condition is beyond the scope provided for by 14 CFR 21.16. That section states that

''If the Administrator finds that the airworthiness regulations of this subchapter do not contain adequate or appropriate safety standards for an aircraft * * * because of a novel or unusual design feature of the aircraft * * * he prescribes special conditions and amendments thereto for the product. The special conditions * * * contain such safety standards for the aircraft * * * as the Administrator finds necessary to establish a level of safety equivalent to that established in the regulations.''

The level of safety established in the part 25 regulations for transport category airplanes is evidenced by the safety record demonstrated in service by airplanes so certificated. Although an overall airframe crashworthiness requirement has never been the subject of a part 25 regulation, current generation airplanes certificated under part 25 have exhibited a level of crashworthiness that the FAA considers to be adequate. These airplanes include those with a single deck and Boeing Model 747 with an upper deck which is considerably smaller (in both length and width) than that of the A380. The current part 25 regulations have no doubt contributed to this level of safety, even though no specific regulation has addressed the performance of the airframe in a crash landing, because the regulations have determined the airframe strength, which service experience has shown to be adequate.

The relevant novel or unusual design features of the A380 vis-à-vis airframe crashworthiness are its size, gross weight, and full length double deck configuration, which are without precedent in the current commercial transport airplane fleet. This special condition requires a demonstration that the A380 provides a level of crash survivability equivalent to that of conventional large transport airplanes. Therefore, the FAA does not agree with the Boeing Company that this special condition is beyond the scope provided for by § 21.16.

Further, the FAA does not agree that the part 25 regulations already provide for the structural integrity and crashworthiness of the passenger cabin for the Airbus A380. The existing regulations address the seats, restraint of passengers, equipment, cargo and other large masses contained in the passenger cabin and their attachment to the airframe, so as to avoid failure of structure which would release these items in the cabin during a minor crash landing and cause injury or block emergency escape routes. They do not, however, address the crashworthiness of fuselage structure as a whole and its ability to avoid collapse in a minor crash landing.

Finally, the FAA does not consider it necessary to address other airplane designs with general rulemaking. It is the unique characteristics of the A380 that motivates this special condition. No other transport airplane is as large or heavy as the A380 or has a full length double deck, and, therefore, there is no need for general rulemaking.

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 condition is issued as part of the type certification basis for the Airbus A380–800 airplane.

In addition to the requirements of §§ 25.561, 25.562, 25.721, and 25.785, the following special condition applies:

It must be demonstrated that the Model A380 provides a level of crash survivability equivalent to that of conventional large transport airplanes. This may be achieved by demonstrating by test or validated analysis that—at impacts up to a vertical descent rate representing the Limit of Reasonable Survivability—the structural capability of typical fuselage sections is equal to or better than that of a conventional large transport airplane. (The Limit of Reasonable Survivability is defined as the level of structural degradation that would either directly or by exceedance of physiological limits of the occupants lead to a significant reduction in the probability of survival in an otherwise survivable incident.) The results of this demonstration must show the following:

a. Structural deformation will not result in infringement of the occupants' normal living space.

b. The occupants will be protected from the release of seats, overhead bins, and other items of mass due to structural deformation of the supporting structure. That is, the supporting structure must be able to support the loads imposed by these items of mass, assuming that they remain attached during the impact event, and the floor structure must deform in a way that would allow them to remain attached. However, the attachments of these items need not be designed for static emergency landing loads in excess of those specified in § 25.561.

c. The Dynamic Response Index experienced by the occupants will not be more severe than that experienced on conventional large transport airplanes. (The Dynamic Response Index is described in USAA VSCOM TR 89–D–22B, ''Aircraft Crash Survival Design Guide, Volume II, Aircraft Design Crash Impact Conditions and Human Tolerance.'')

d. Cargo loading of the fuselage for this evaluation accounts for variations that could have a deleterious effect on structural performance.

Issued in Renton, Washington, on July 24, 2006.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. E6–13796 Filed 8–18–06; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. NM341; Special Conditions No. 25–324–SC]

Special Conditions: Airbus Model A380–800 Airplane, Loading Conditions for Multi-leg Landing Gear

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 loading conditions for multi-leg landing gear. 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.''