configuration nor is this configuration specifically addressed by policy statement PS–ANM–25–03–R1 (which is intended to address fully side-facing seats i.e., 90 degree installation angle). However, we believe the occupant-injury criteria conveyed in this policy statement is germane to this type of configuration when it comes to evaluating neck and leg injuries. Due to the unique seat installation angle, the revised special conditions also include spinal-loading injury criteria.

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.

Applicability

As discussed above, these special conditions are applicable to the Boeing Model 787–9 airplane. 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 feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplanes. It is not a rule of general applicability.

Under standard practice, the effective date of final special conditions would be 30 days after the date of publication in the **Federal Register**; however, as the certification date for the Boeing Model 787–9 airplane is imminent, the FAA finds that good cause exists to make these special conditions effective upon publication in the **Federal Register**.

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 Boeing Model 787–9 airplanes modified by Boeing.

Side-Facing Seats Conditions

Proposed Injury Criteria

1. *Existing Criteria:* All injury-protection criteria of § 25.562(c)(1) through (c)(6) apply to the occupant of a side-facing seat. Head-injury criterion (HIC) assessments are only required for head contact with the seat and/or adjacent structures.

2. *Body-to-Wall/Furnishing Contact:* Under the load condition defined in § 25.562(b)(2), the seat must be installed aft of a structure such as an interior wall or furnishing that will support the pelvis, upper arm, chest, and head of an occupant seated next to the structure. A conservative representation of the structure and its stiffness must be included in the tests.

3. *Thoracic Trauma:* Under the load condition defined in § 25.562(b)(2), thoracic-trauma index (TTI) injury criterion must be substantiated by dynamic test or by rational analysis based on previous test(s) of a similar seat installation. Testing must be conducted with a side-impact dummy (SID), as defined by Title 49, Code of Federal Regulations (CFR) part 572, subpart F, or its equivalent. TTI must be less than 85, as defined in 49 CFR part 572, subpart F. The SID TTI data must be processed as defined in Federal Motor Vehicle Safety Standard (FMVSS) part 571.214, section S6.13.5.

4. *Pelvis:* Under the load condition defined in § 25.562(b)(2), pelvic lateral acceleration must be shown, by dynamic test or by rational analysis based on previous test(s) of a similar seat installation, to not exceed 130g. Pelvic acceleration data must be processed as defined in FMVSS part 571.214, section S6.13.5.

5. *Shoulder Strap Loads:* Where upper torso straps (shoulder straps) are used for occupants, tension loads in individual straps must not exceed 1,750 pounds. If dual straps are used for restraining the upper torso, the total strap tension loads must not exceed 2,000 pounds.

6. *Neck Injury Criteria:* The seating system must protect the occupant from experiencing serious neck injury. In this regard, neck injury must be evaluated to the criteria provided in Policy Statement PS–ANM–25–03–R1, Attachment 1, Section 2.f.

7. *Leg Injury Criteria:* Axial rotation of the upper leg must be limited to 35 degrees in either direction from the nominal seated position.

8. *Spine:* The shoulders must remain aligned with the hips throughout the impact sequence, or until the spinal loads (in either tension or compression) drop below the value that would be injurious.

General Test Guidelines

1. Longitudinal test(s), as necessary with the SID anthropomorphic test dummy (ATD), or as necessary EuroSID ATD, undeformed floor, no yaw, and with all lateral structural supports (armrests/walls).

Pass/fail injury assessments: TTI pelvic acceleration, neck, leg, and spine injury.

2. One longitudinal test with the Hybrid II ATD, deformed floor, with 10 degrees yaw, and with all lateral structural supports (armrests/walls).

Pass/fail injury assessments: HIC; and upper torso restraint load, restraint system retention, and pelvic acceleration.

3. Vertical (14g) test is to be conducted with modified Hybrid II ATDs with existing pass/fail criteria.

Note: Boeing must demonstrate that the installation of seats via plinths or pallets meets all applicable requirements. Compliance with the guidance contained in FAA Policy Memorandum PS–ANM–100–2000–00123, dated February 2, 2000, titled ''Guidance for Demonstrating Compliance with Seat Dynamic Testing for Plinths and Pallets,'' is acceptable to the FAA.

Inflatable Lapbelt Conditions

If inflatable lapbelts are installed on single-place side-facing seats, the inflatable lapbelt(s) must meet special conditions 25–431–SC.

Issued in Renton, Washington, on May 12, 2014.

Jeffrey E. Duven,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014–13664 Filed 6–11–14; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2013–0898 Special Conditions No. 25–526–SC]

Special Conditions: Airbus Model A350–900 Series Airplane; Composite Fuselage In-Flight Fire/Flammability Resistance

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for Airbus Model A350–900 series airplanes. These airplanes will have a novel or unusual design feature associated with the in-flight fire and flammability resistance of the composite fuselage. Experience has shown that eliminating fire propagation on the surface of interior and insulating materials enhances survivability since the threats from an in-flight fire (e.g., toxic gas emission and smoke

obscuration) are typically by-products of a propagating fire. The Airbus Model A350–900 series airplanes must provide protection against an in-flight fire propagating along the surface of the fuselage. Special conditions are needed to address this design feature. 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 July 14, 2014.

FOR FURTHER INFORMATION CONTACT: Jeff Gardlin, FAA, Airframe/Cabin Safety, ANM–115, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington, 98057–3356; telephone (425) 227–2136; facsimile (425) 227–1320.

SUPPLEMENTARY INFORMATION:

Background

On August 25, 2008, Airbus applied for a type certificate for their new Model A350–900 series airplane. Later, Airbus requested and the FAA approved an extension to the application for FAA type certification to June 28, 2009. The Model A350–900 series has a conventional layout with twin wing-mounted Rolls Royce Trent engines. It features a twin aisle 9-abreast economy class layout, and accommodates side-by-side placement of LD–3 containers in the cargo compartment. The basic Model A350–900 series configuration will accommodate 315 passengers in a standard two-class arrangement. The design cruise speed is Mach 0.85 with a Maximum Take-Off Weight of 602,000 lbs.

Experience has shown that eliminating fire propagation on the surface of interior and insulating materials enhances survivability since the threats from an in-flight fire (e.g., toxic gas emission and smoke obscuration) are typically by-products of a propagating fire. The Airbus Model A350–900 series airplane must provide protection against an in-flight fire propagating along the surface of the fuselage.

In the past, fatal in-flight fires have originated in inaccessible areas of the aircraft where the thermal/acoustic insulation located adjacent to the aluminium aircraft skin has been the path for flame propagation and fire growth. Concern over the fire performance of thermal/acoustic insulation was initially raised by five incidents in the 1990's which revealed unexpected flame spread along the insulation film covering material. In all cases, the ignition source was relatively modest and, in most cases, was electrical in origin (e.g., electrical short circuit, arcing caused by chafed wiring, ruptured ballast case). From 1972 until 2003 these materials were required to comply with a basic ''Bunsen burner'' requirement per Title 14 Code of Federal Regulations (14 CFR) 25.853(a), 25.855(d), and part 25, Appendix F, part I, paragraph (a)(1)(ii). These requirements prescribed that insulation materials must be self-extinguishing after having been subjected to the flame of a Bunsen burner for 12 seconds, in accordance with the procedures defined in part 25, Appendix F, part I, paragraph (b)(4). The average burn was not to exceed eight inches and the average flame time after removal of the flame source was not to exceed 15 seconds. Drippings from the test specimen were not to continue to flame for more than an average of five seconds after falling.

Further concern with the flammability of thermal/acoustic insulation was raised by the Transportation Safety Board (TSB) of Canada during their investigation of the fatal Swiss Air MD–11 in-flight fire accident that occurred in September 1998 and involved 229 fatalities. TSB investigators reported that the fatal fire appeared to have been confined to the area above the cockpit and forward cabin ceiling and involved the insulation blankets. On August 21, 2001, the TSB recommended that flammability standards for interior materials should be based on realistic ignition scenarios and prevent the use of materials that sustain or propagate a fire.

In 1996, the FAA Technical Center began a program to develop new fire test criteria for insulation films directly relating to the resistance of in-flight fire propagation. The current test standard was evaluated as well as another small-scale test method that has been used by airplane manufacturers to evaluate flame propagation on thermal/acoustic insulation materials. An inter-laboratory comparison of these methods revealed a number of deficiencies. Other small-scale tests developed by the FAA Technical Center did demonstrate that some insulation films would ignite and propagate flame in a confined space. As a result, a series of large-scale fire tests were conducted in a mock-up of the attic area above the passenger cabin ceiling. In a confined space, ignition and flame propagation may occur because of more extensive radiating heat and the trapping of melted film/scrim. Temperature (heat release) data was recorded and the degree of flame propagation was observed from the large-scale tests. A radiant panel test standard for flooring materials was a test method that provided good correlation to the large-scale model. The test method involved subjecting a material to a pilot flame while the material is heated by a radiant panel.

The previously described development program resulted in a new test method (radiant panel test) and test criteria specifically established for improving the in-flight fire ignition/flame propagation of thermal/acoustic insulation materials. A new part 25 airworthiness standard, § 25.856, became effective in September 2003, Amendment 25–111, requiring that all thermal/acoustic insulation materials installed in the fuselage must comply to this flammability and flame propagation requirement. The standards are intended to ''reduce the incidence and severity of cabin fires, particularly those ignited in inaccessible areas where thermal acoustic insulation materials are typically installed.''

Type Certification Basis

Under Title 14, Code of Federal Regulations (14 CFR) 21.17, Airbus must show that the Model A350–900 series airplane meets the applicable provisions of 14 CFR part 25, as amended by Amendments 25–1 through 25–129.

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 Model A350–900 series because of a novel or unusual design feature, special conditions are prescribed under § 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 that incorporates the same or similar novel or unusual design feature, the special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Model A350–900 series 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. The FAA must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

The FAA issues special conditions, as defined in 14 CFR 11.19, under § 11.38, and they become part of the type-certification basis under § 21.17(a)(2).

Novel or Unusual Design Features

The Airbus Model A350–900 series airplane incorporates the following novel or unusual design features: Fuselage fabricated with composite materials.

Discussion

The Airbus Model A350–900 series airplane makes extensive use of composite materials in the fabrication of the majority of the wing, fuselage skin, stringers, spars, and most other structural elements of all major sub-assemblies of the airplane. Despite the major change from aluminum to composite material for the fuselage, the Model A350–900 series must have in-flight survivability such that the composite fuselage does not propagate a fire. A methodology for assessing the in-flight fire survivability of an all-composite fuselage is therefore needed.

The FAA believes that one way to assess the survivability within the cabin of the Model A350–900 series airplane is to conduct large-scale tests. This large-scale test would utilize a mock-up of an Airbus Model A350–900 series airplane fuselage skin/structure section of sufficient size to assess any tendency for fire propagation. The fire threat used to represent the realistic ignition source in the airplane would consist of a 4″ x 4″ x 9″ polyurethane foam block and 10 ml of Heptane. This ignition source provides approximately three minutes of flame time and would be positioned at various points and orientations within the mocked up installation to impinge on those areas of the fuselage considered to be most crucial.

This fire threat was established based on an assessment of a range of potential ignition sources, coupled with possible contamination of materials. The FAA considers this a severe fire threat, encompassing a variety of scenarios. However, should ignition or fire sources of a greater severity be identified, the special condition or its method of compliance would need to be modified in order to take the more severe threat into account.

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.

Discussion of Comments

Notice of proposed special conditions No. 25–13–33–SC for the Airbus Model A350–900 series airplanes was published in the **FEDERAL REGISTER** on November 15, 2013 (78FR68775). No comments were received, and the special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions apply to Airbus Model A350–900 series airplanes. Should Airbus apply later for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on the Airbus Model A350–900 series airplanes. 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 Airbus Model A350–900 series airplanes.

Composite Fuselage In-Flight Fire/ Flammability Resistance

In addition to the requirements of § 25.853(a) governing material flammability, the following special condition applies:

The Airbus Model A350 composite fuselage structure must be shown to be resistant to flame propagation under the fire threat used to develop § 25.856(a). If products of combustion are observed beyond the test heat source, they must be evaluated and found acceptable.

Issued in Renton, Washington, on: April 22, 2014.

Jeffrey E. Duven,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014–13665 Filed 6–11–14; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2013–0882; Directorate Identifier 2013–NE–29–AD; Amendment 39–17864; AD 2014–12–03]

RIN 2120–AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Rolls-Royce Deutschland Ltd & Co KG (RRD) BR700–725A1–12 turbofan engines. This AD requires removal of affected fuel metering units (FMUs) on RRD BR700–725A1–12 engines. This AD was prompted by reports of wear on the receptors of the double-ended unions in the FMU housing on BR700–725A1–12 engines causing fuel leakage. We are issuing this AD to prevent failure of the FMU, which could lead to damage to one or more engines and damage to the airplane.

DATES: This AD becomes effective July 17, 2014.

ADDRESSES: For service information identified in this AD, contact Rolls-Royce Deutschland Ltd & Co KG, Eschenweg 11, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany; phone: 49 0 33–7086–1883; fax: 49 0 33–7086–3276. You may view this service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781–238–7125.

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–2013–0882; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the mandatory continuing airworthiness information (MCAI), the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800–647–5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200