

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 Airbus Model A350-900 airplane configuration accommodates 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.

These special conditions for control-surface awareness, applicable to Airbus Model A350-900 airplanes, require suitable flight-control-position annunciation and control-system mode of operation to be provided to the flightcrew when a flight condition exists in which nearly full surface authority (not crew-commanded) is being utilized. Suitability of such a display must take into account that some pilot-demanded maneuvers (e.g., rapid roll) are necessarily associated with intended full performance, which may saturate the surface. Therefore, simple alerting systems, which would function in both intended or unexpected control-limiting situations, must be properly balanced between needed crew awareness and nuisance features. A monitoring system that might compare airplane motion and surface deflection, and pilot side-stick controller (SSC) demand, could be useful for elimination of nuisance alerting.

Type Certification Basis

Under Title 14, Code of Federal Regulations (14 CFR) 21.17, Airbus must show that the Model A350-900 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 airplane 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 Airbus Model A350-900 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. The FAA must issue a finding

of regulatory adequacy under section 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 airplane incorporates the following novel or unusual design features: Electronic flight-control system providing control-surface awareness and mode annunciation to the flightcrew.

Discussion

With a response-command type flight-control system and no direct coupling from cockpit controller to control surface, the pilot is not aware of actual surface position utilized to fulfill the requested demand. Some unusual flight conditions, arising from atmospheric conditions and/or airplane or engine failures, may result in full or nearly full surface deflection. Unless the flightcrew is made aware of excessive deflection or impending control-surface limiting, piloted or auto-flight system control of the airplane might be inadvertently continued in such a manner as to cause loss of control or other unsafe stability or performance characteristics.

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. 25-13-15-SC for Airbus Model A350-900 airplanes was published in the **Federal Register** on December 17, 2013 (78 FR 76254). 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 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 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 airplanes.

Current airworthiness standards do not contain adequate safety standards for the design. In addition to the requirements of §§ 25.143, 25.671 and 25.672, the following special conditions apply:

1. The system design must ensure that the flightcrew is made suitably aware whenever the primary control means nears the limit of control authority.

Note: The term "suitably aware" indicates annunciations provided to the flight crew that are appropriately balanced between nuisance and necessary crew awareness.

2. If the design of the flight-control system has multiple modes of operation, a means must be provided to indicate to the crew any mode that significantly changes or degrades the normal handling or operational characteristics of the airplane.

Issued in Renton, Washington, on July 11, 2014.

Michael Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014-18175 Filed 7-31-14; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA-2013-0902; Special Conditions No. 25-521-SC]

Special Conditions: Airbus Model A350-900 Series Airplane; Electronic Flight-Control System (EFCS) To Limit Pitch and Roll

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Airbus Model A350-900 airplane. This airplane will have a novel or unusual design feature associated with the electronic flight-control system (EFCS) that limits pitch- and roll-attitude functions. 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 Date:* September 2, 2014.

FOR FURTHER INFORMATION CONTACT: Joe Jacobsen, FAA, Airplane and Flightcrew Interface Branch, ANM-111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-2011; facsimile (425) 227-1320.

SUPPLEMENTARY INFORMATION:

Background

On August 25, 2008, Airbus applied for a type certificate for their new Model A350-900 airplane. Later, Airbus requested, and the FAA approved, an extension to the application for FAA type certification to November 15, 2009. The Model A350-900 airplane has a conventional layout with twin wing-mounted Rolls-Royce Trent XWB 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 airplane 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.

A special condition to supplement § 25.143 concerning pitch and roll limits was developed for the Airbus Model A320, A330, A340, and A380 airplanes wherein performance of the limiting functions was monitored throughout the flight-test program. The FAA expects similar monitoring to take place during the A350 flight-test program to substantiate the pitch- and roll-attitude limiting functions, and the appropriateness of the chosen limits.

Type Certification Basis

Under Title 14, Code of Federal Regulations (14 CFR) 21.17, Airbus must show that the Model A350-900 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 airplane 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 final special conditions, the Model A350-900 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. The FAA must issue a finding of regulatory adequacy under section 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 will incorporate the following novel or unusual design features: an EFCS that, when operating in its normal mode, will prevent airplane pitch attitudes greater than +30 degrees and less than -15 degrees, and roll angles greater than plus or minus 67 degrees. In addition, positive spiral stability is introduced for roll angles greater than 33 degrees at speeds below V_{MO}/M_{MO} . At speeds greater than V_{MO} and up to V_{DF} , maximum aileron-control force is limited to only 45 degrees maximum bank angle.

Discussion

It is expected that high thrust-to-weight ratios provide the most critical cases for the positive-pitch limit. A margin in pitch control must be available to enable speed control in maneuvers such as climb after takeoff, and bailed landing climb. The pitch limit must not impede likely maneuvering made necessary by collision avoidance efforts. A negative-pitch limit must similarly not interfere with collision-avoidance capability, or with attaining and maintaining speeds near V_{MO}/M_{MO} for emergency descent.

Spiral stability, which is introduced above 33 degrees roll angle, and the roll limit must not restrict attaining roll angles up to 66 degrees (approximately 2.5g level turn) with flaps up and 60 degrees (approximately 2.0g level turn) with flaps down. The implementation of this spiral stability requires a steady aileron-control force to maintain a constant bank angle above 33 degrees. This force must not require excessive pilot strength as stated in § 25.143(f).

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. 25-13-25-SC for the Airbus Model A350-900 airplane was published in the **Federal Register** on November 12, 2013 (78 FR 67320). One comment supporting the special conditions was received. These special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions apply to Airbus Model A350-900 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 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 airplanes. In addition to § 25.143, the following requirements apply:

1. The pitch-limiting function must not impede normal maneuvering for pitch angles up to the maximum required for normal maneuvering, including a normal all-engines-operating takeoff, plus a suitable margin to allow for satisfactory speed control.

2. The pitch and roll limiting functions must not restrict or prevent attaining pitch attitudes necessary for emergency maneuvering, or roll angles up to 66 degrees with flaps up or 60 degrees with flaps down. Spiral stability, which is introduced above 33 degrees roll angle, must not require excessive pilot strength to achieve these roll-limit angles. Other protections, which further limit the roll capability under certain extreme angle-of-attack,

attitude, or high-speed conditions, are acceptable as long as they allow at least 45 degrees of roll capability.

Issued in Renton, Washington, on July 11, 2014.

Michael Kaszycki,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2014-18176 Filed 7-31-14; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0486; Directorate Identifier 2014-NM-126-AD; Amendment 39-17918; AD 2014-15-16]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Airbus Model A319-111, -112, -115, -132, and -133 airplanes; Model A320-214, -232, and -233 airplanes; and Model A321-211, -231, and -232 airplanes. This AD requires a detailed inspection for missing fasteners on the frame between certain stringers; for certain airplanes, a rototest inspection of the fastener holes for cracking; and corrective actions if necessary. This AD was prompted by a report that when the cabin lining was removed during a cabin conversion it was discovered that fasteners were missing on the frame. We are issuing this AD to detect and correct missing fasteners which, if not corrected, could affect the structural integrity of the airframe and could result in rapid decompression.

DATES: This AD becomes effective August 18, 2014.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 18, 2014.

We must receive comments on this AD by September 15, 2014.

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, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Airbus, Airworthiness Office—EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

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-2014-0486; or in person at the Docket Operations office 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 the Docket Operations office (telephone 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2014-0146, dated June 11, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus Model A319-111, -112, -115, -132, and -133 airplanes; Model A320-214, -232, and -233 airplanes; and Model A321-211, -231, and -232 airplanes. The MCAI states:

During cabin conversion of an A320 aeroplane, after removal of the cabin lining, an area was discovered where fasteners were missing at frame (FR) 24 between stringer (STR) 17 and STR18. Investigation results revealed that the available data concerning installation on the final assembly line was insufficient to pinpoint the exact MSN [manufacturer serial number] on which the affected assemblies were installed. However, a ‘group’ of MSN suspected to be affected was identified. Results of the static analysis performed show that the structure is still able to sustain Limit and Ultimate loads. However, the fatigue aspects indicate that long-term effects can be expected.

This condition, if not corrected, could affect the structural integrity of the airframe.

Prompted by these findings, Airbus issued Alert Operators Transmission (AOT) A53N006-14 and Service Bulletin (SB) A320-53-1285 to provide inspection instructions.

For the reasons described above, this [EASA] AD requires a one-time detailed inspection (DET) [for missing fasteners] of the aeroplane structure at FR24 and, depending on findings, [a rototest inspection of the fastener holes for cracking and] accomplishment of applicable corrective actions.

Corrective actions include repairing cracking and installing fasteners.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0486.

Relevant Service Information

Airbus has issued the following service information. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

- Alert Operators Transmission A53N006-14, dated May 13, 2014.
- Service Bulletin A320-53-1285, dated January 29, 2014.

FAA’s Determination and Requirements of This AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of these same type designs.

“Contacting the Manufacturer” Paragraph in This AD

Since late 2006, we have included a standard paragraph titled “Airworthy Product” in all MCAI ADs in which the