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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2010-0391; Directorate Identifier 2010-NM-073-AD; Amendment 39-16263; AD 2010-08-08]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A330-243, -341, -342, and -343 Airplanes Equipped with Rolls-Royce Trent 700 Engines

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 the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

During a recent in-service event the flight crew of a Trent 700 powered A330 aircraft reported a temporary Engine Pressure Ratio (EPR) shortfall on engine 2 during the take-off phase of the flight. * * *

Data analysis confirmed a temporary fuel flow restriction and subsequent recovery, and indicated that also engine 1 experienced a temporary fuel flow restriction shortly after the initial event on engine 2. * * *

Based on previous industry-wide experience, the investigation of the event has focused on the possibility for ice to temporarily restrict the fuel flow. * * *

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The scenario of ice being shed and causing a temporary blockage in the engine fuel system may lead to a temporary fuel flow restriction to the engine. This may result in a possible engine surge or stall condition, and in the engine not being able to provide the commanded thrust.

* * * * *

This AD requires actions that are intended to address the unsafe condition described in the MCAI.

DATES: This AD becomes effective April 29, 2010.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of April 29, 2010.

We must receive comments on this AD by June 1, 2010.

ADDRESSES: You may send comments 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 W12-40, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; 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: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1138; 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 Emergency Airworthiness Directive 2010-0042-E, dated March 12, 2010 (referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During a recent in-service event the flight crew of a Trent 700 powered A330 aircraft reported a temporary Engine Pressure Ratio (EPR) shortfall on engine 2 during the take-off phase of the flight. The ENG STALL warning was set. The flight crew followed the standard procedures which included reducing throttle to idle. The engine recovered and provided the demanded thrust level for the remainder of the flight.

Data analysis confirmed a temporary fuel flow restriction and subsequent recovery, and indicated that also engine 1 experienced a temporary fuel flow restriction shortly after the initial event on engine 2, again followed by a full recovery. The engine 1 EPR shortfall was insufficient to trigger any associated warning and was only noted through analysis of the flight data. No flight crew action was necessary to recover normal performance on this engine. The remainder of the flight was uneventful.

Based on previous industry-wide experience, the investigation of the event has focused on the possibility for ice to temporarily restrict the fuel flow. While no direct

fuel system fault has been identified, the operation of the water scavenge system at Rib 3 cannot be excluded as being a contributory factor.

Testing and analysis are continuing to identify the root cause of the event.

The scenario of ice being shed and causing a temporary blockage in the engine fuel system may lead to a temporary fuel flow restriction to the engine. This may result in a possible engine surge or stall condition, and in the engine not being able to provide the commanded thrust.

Therefore, as a precautionary measure to reduce the possibility of ingesting ice into the engine fuel feed system, this AD requires to:

–Deactivate the automatic Standby Fuel Pump Scavenge System, which operates during Taxi and Take-off by removing relays Functional Item Numbers (FIN) 80QA1 and 80QA2 (this will not affect normal standby pump operation) for aeroplanes identified in the applicability section of this AD and on which this deactivation has not been performed in production through the modification 200801, and

–Prohibit the dispatch with * * * [a] MAIN Fuel Pump inoperative on all aeroplanes identified in the applicability section of this AD.

This AD also requires revising the Limitations section of the airplane flight manual to advise the flight crew of the dispatch prohibition. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Airbus has issued All Operators Telex A330-28A3114, Revision 1, dated March 24, 2010. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

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 the same type design.

Differences Between the AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a NOTE within the AD.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because ice being shed and causing a temporary blockage in the engine fuel system could lead to a temporary fuel flow restriction to the engine, which could result in a possible engine surge or stall condition, and in the engine not being able to provide the commanded thrust. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2010-0391; Directorate Identifier 2010-NM-073-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and
3. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

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

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:



2010-08-08 Airbus: Amendment 39-16263. Docket No. FAA-2010-0391; Directorate Identifier 2010-NM-073-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective April 29, 2010.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Airbus Model A330-243, -341, -342, and -343 airplanes, certificated in any category, all manufacturer serial numbers equipped with Rolls-Royce Trent 700 engines, on which Airbus modification 56966MP16199 has been embodied in production or Airbus Service Bulletin A330-28-3105 has been embodied in service.

Subject

- (d) Air Transport Association (ATA) of America Code 28: Fuel.

Reason

- (e) The mandatory continued airworthiness information (MCAI) states:

During a recent in-service event the flight crew of a Trent 700 powered A330 aircraft reported a temporary Engine Pressure Ratio (EPR) shortfall on engine 2 during the take-off phase of the flight. The ENG STALL warning was set. The flight crew followed the standard procedures which included reducing throttle to idle. The engine recovered and provided the demanded thrust level for the remainder of the flight.

Data analysis confirmed a temporary fuel flow restriction and subsequent recovery, and indicated that also engine 1 experienced a temporary fuel flow restriction shortly after the initial event on engine 2, again followed by a full recovery. The engine 1 EPR shortfall was insufficient to trigger any associated warning and was only noted through analysis of the flight data. No flight crew action was necessary to recover normal performance on this engine. The remainder of the flight was uneventful.

Based on previous industry-wide experience, the investigation of the event has focused on the possibility for ice to temporarily restrict the fuel flow. While no direct fuel system fault has been identified, the operation of the water scavenge system at Rib 3 cannot be excluded as being a contributory factor.

Testing and analysis are continuing to identify the root cause of the event.

The scenario of ice being shed and causing a temporary blockage in the engine fuel system may lead to a temporary fuel flow restriction to the engine. This may result in a possible engine surge or stall condition, and in the engine not being able to provide the commanded thrust.

Therefore, as a precautionary measure to reduce the possibility of ingesting ice into the engine fuel feed system, this AD requires to:

–Deactivate the automatic Standby Fuel Pump Scavenge System, which operates during Taxi and Take-off by removing relays Functional Item Numbers (FIN) 80QA1 and 80QA2 (this will not affect normal standby pump operation) for aeroplanes identified in the applicability section of this AD and on which this deactivation has not been performed in production through the modification 200801, and

–Prohibit the dispatch with * * * [a] MAIN Fuel Pump inoperative on all aeroplanes identified in the applicability section of this AD.

This AD also requires revising the Limitations section of the airplane flight manual to advise the flight crew of the dispatch prohibition.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Actions

(g) For airplanes on which Airbus modification 200801 has not been embodied in production as of the effective date of this AD: Within 10 days after the effective date of this AD, deactivate the water scavenge automatic operation by removing relays FIN 80QA1 (left-hand) and 80QA2 (right-hand), in accordance with the instructions in Airbus All Operators Telex A330-28A3114, Revision 1, dated March 24, 2010.

(h) Deactivation before the effective date of this AD in accordance with Airbus All Operators Telex A330-28A3114, dated March 10, 2010, is considered acceptable for compliance with the corresponding action required by paragraph (g) of this AD.

(i) For airplanes on which Airbus modification 200801 has not been embodied in production as of the effective date of this AD: Before further flight after accomplishment of the requirements of paragraph (g) of this AD, dispatch of an airplane with any inoperative main fuel pump is prohibited.

(j) For airplanes on which Airbus modification 200801 has been embodied in production as of the effective date of this AD: Dispatch of an airplane with any inoperative main fuel pump is prohibited as of the effective date of this AD.

(k) For all airplanes: At the applicable time specified in paragraph (k)(1) or (k)(2) of this AD, revise the Limitations section of the airplane flight manual (AFM) to include the following statement. This may be done by inserting a copy of this AD into the AFM.

"Dispatch with any inoperative main fuel pump is prohibited."

(1) For airplanes on which Airbus modification 200801 has not been embodied in production as of the effective date of this AD: Revise the AFM before further flight after accomplishment of the requirements of paragraph (g) of this AD.

(2) For airplanes on which Airbus modification 200801 has been embodied in production as of the effective date of this AD: Revise the AFM before further flight after the effective date of this AD.

Note 1: When a statement identical to that in paragraph (k) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM.

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(1) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically refer to this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(m) Refer to MCAI European Aviation Safety Agency (EASA) Emergency Airworthiness Directive 2010-0042-E, dated March 12, 2010; and Airbus All Operators Telex A330-28A3114, Revision 1, dated March 24, 2010; for related information.

Material Incorporated by Reference

(n) You must use Airbus All Operators Telex A330-28A3114, Revision 1, dated March 24, 2010, as applicable, to do the actions required by this AD, unless the AD specifies otherwise. (The document number, revision level, and date of this document are indicated only on the first page of the document; no other page of the document contains this information.)

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Airbus SAS–Airworthiness Office–EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96;

fax +33 5 61 93 45 80; e-mail airworthiness.A330-A340@airbus.com; Internet
<http://www.airbus.com>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on April 1, 2010.

Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.