



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0476; Directorate Identifier 2016-NM-110-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2014-08-01, for all Airbus Model A318, A319, A320, and A321 series airplanes. AD 2014-08-01 currently requires an inspection for part numbers of the interconnecting struts and, for affected interconnecting struts, identification of the part and serial numbers of the associated target and proximity sensors and replacement or re-identification of the flap interconnecting strut if necessary. Since we issued AD 2014-08-01, we have determined that certain airplanes must be inspected to verify the interconnecting strut part number. This proposed AD would add airplanes to the applicability. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, 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-2017-0476; 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 proposed 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, Washington 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2017-0476; Directorate Identifier 2016-NM-110-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on 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 proposed AD.

Discussion

On April 7, 2014, we issued AD 2014-08-01, Amendment 39-17825 (79 FR 23900, April 29, 2014) (“AD 2014-08-01”), for all Airbus Model A318, A319, A320, and A321 series airplanes. AD 2014-08-01 superseded AD 2014-03-08, Amendment 39-17745 (79 FR 9398, February 19, 2014) (“AD 2014-03-08”). AD 2014-08-01 was

prompted by a report that an investigation showed that when a certain combination of target/proximity sensor serial numbers is installed on a flap interconnecting strut, a “target FAR” signal cannot be detected when it reaches the mechanical end stop of the interconnecting strut. AD 2014-08-01 requires an inspection to determine the part number of the interconnecting struts installed on the wings, identifying the part number and the serial number of the associated target and proximity sensor if applicable, and replacing or re-identifying the flap interconnecting strut if applicable. We issued AD 2014-08-01 to correct the definition of a serviceable interconnecting strut.

Since we issued AD 2014-08-01, we received a report that airplanes were delivered with pre-modification 27956 part number installed on the flap interconnecting strut(s), but declared to be in post-modification configuration in the Aircraft Inspection Report. We have determined that certain airplanes must be inspected to verify the interconnecting strut part number.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2016-0113, dated June 15, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318, A319, A320, and A321 series airplanes. The MCAI states:

The flap interconnecting strut is a safety device of the High Lift System which acts as an alternative load path from one flap surface to another in case of a flap drive system disconnection. In such a failure case, the installed proximity sensors provide information to the slat flap control computer (SFCC) and the operation of the flap drive system is inhibited.

An engineering investigation showed that, when a certain combination of target/sensor serial number (s/n) is installed on a flap interconnecting strut, a “target FAR” signal cannot be detected when reaching the mechanical end stop of the interconnecting strut.

This condition, if not corrected, could cause a flap down drive disconnection to remain undetected, due to an already-failed interconnecting strut sensor, potentially resulting in asymmetric flap panel movement and consequent loss of control of the aeroplane.

To address this potential unsafe condition, Airbus issued Service Bulletin (SB) A320-27-1206 and SB A320-57-1164, to provide identification and replacement instructions for struts that have a certain target/sensor s/n combination installed. Aeroplanes on which modification (mod) 27956 had been accomplished in production were identified as not affected by the unsafe condition. Consequently, EASA issued [EASA] AD 2012-0012 [which corresponds to FAA AD 2014-03-08] to require accomplishment of these inspections and corrective actions.

Since that [EASA] AD was issued, Airbus has informed EASA about a batch of aeroplanes that were delivered with pre-mod 27956 Part Number (P/N) flap interconnecting strut(s) installed, but declared to be in post-mod configuration in the Aircraft Inspection Report. Airbus SB A320-57-1202 has been issued to provide instructions to verify the interconnecting strut P/N, and to update aircraft documentation.

In addition, to ensure that all pre-mod parts are checked and corrected as required, SB A320-27-1206 was revised to include a wider range of P/N of affected interconnecting struts.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2012-0012, which is superseded, expands the Applicability, changes the compliance time and requires an additional inspection for aeroplanes that have already been inspected.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0476.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015. The service information describes an inspection to determine the part number of the installed interconnecting struts and the part number and serial number of the associated target and proximity sensor, and replacement and re-identification of the interconnecting struts. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA’s Determination and Requirements of this Proposed 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 proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Costs of Compliance

We estimate that this proposed AD affects 1,032 airplanes of U.S. registry.

The actions required by AD 2014-08-01, and retained in this proposed AD, take about 8 work-hours per product, at an average labor rate of \$85 per work-hour. Required

parts cost about \$0 per product. Based on these figures, the estimated cost of the actions that are required by AD 2014-08-01 is \$680 per product.

We also estimate that it would take about 15 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Required parts would cost about \$0 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$1,315,800, or \$1,275 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed 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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 proposed regulation:

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);
3. Will not affect intrastate aviation in Alaska; and
4. 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.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 removing Airworthiness Directive (AD) 2014-08-01, Amendment 39-17825 (79 FR 23900, April 29, 2014), and adding the following new AD:

Airbus: Docket No. FAA-2017-0476; Directorate Identifier 2016-NM-110-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2014-08-01, Amendment 39-17825 (79 FR 23900, April 29, 2014) (“AD 2014-08-01”).

(c) Applicability

This AD applies to Airbus Model A318-111, -112, -121, and -122 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes; certificated in any category; all manufacturer serial numbers.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Reason

This AD was prompted by a report that an investigation showed that when a certain combination of a target/proximity sensor serial numbers is installed on a flap

interconnecting strut, a “target FAR” signal cannot be detected when reaching the mechanical end stop of the interconnecting strut. We are issuing this AD to detect and correct a latent failure of the flap down drive disconnection due to an already-failed interconnecting strut sensor, which could result in asymmetric flap panel movement and consequent loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Retained Inspection to Determine the Part Number of the Interconnecting Struts, with Revised Service Information

This paragraph restates the requirements of paragraph (g) of AD 2014-08-01, with revised service information. Within 8,000 flight hours after March 26, 2014 (the effective date of AD 2014-03-08, Amendment 39-17745 (79 FR 9398, February 19, 2014) (“AD 2014-03-08”)), inspect to determine the part number of the interconnecting struts installed on both the left-hand (LH) and right-hand (RH) wings of the airplane, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 01, dated October 10, 2011; or Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015. A review of the airplane maintenance records is acceptable for determining the part number of the installed interconnecting struts, in lieu of the inspection, if the part number of the installed interconnecting struts, and the part number and the serial number of the associated target and proximity sensor, can be conclusively determined from that review. Accomplishment of the requirements of paragraph (i) of this AD terminates the requirements of this paragraph.

(1) Airplanes on which Airbus Modification 27956 has been embodied in production, and on which no interconnecting strut has been replaced with a strut having a part number specified in figure 1 to paragraphs (g) and (h) of this AD since the airplane's first flight: No further work is required by paragraph (g) of this AD.

(2) If, during the inspection required by paragraph (g) of this AD, any interconnecting strut is installed with a part number specified in figure 1 to paragraphs (g) and (h) of this AD: Within 8,000 flight hours after March 26, 2014 (the effective date of AD 2014-03-08), determine the part number and the serial number of the associated target and proximity sensor.

(i) For airplanes having conditions specified in paragraphs (g)(2)(i)(A), (g)(2)(i)(B), (g)(2)(i)(C), and (g)(2)(i)(D) of this AD: Before further flight, replace the interconnecting strut with a serviceable unit, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 01, dated October 10, 2011; or Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015. For the purposes of paragraph (g) of this AD, a serviceable interconnecting strut is a unit which has been determined to be in compliance with the requirements of paragraph (g) of this AD.

(A) A target part number (P/N) ABS0121-13 or P/N 8-536-01; and

(B) A target serial number lower than 1600, or a target serial number that is unreadable; and

(C) A proximity sensor having P/N ABS0121-31 or P/N 8-372-04; and

(D) A proximity sensor having a serial number between C59198 and C59435, or a serial number (S/N) C500000 or higher.

(ii) For a target having S/N 1600 or higher and target P/N ABS0121-13 or P/N 8-536-01: Within 8,000 flight hours after March 26, 2014 (the effective date of AD 2014-03-08), re-identify the interconnecting strut, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 01, dated October 10, 2011; or Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015.

Figure 1 to paragraphs (g) and (h) of this AD – Interconnecting strut part numbers

Interconnecting strut part numbers
D5757030500000
D5757030500100
D5757030500200
D5757030500600
D5757030500800
D5757030501000
D5757030501200
D5757032200000

(h) Retained Parts Installation Prohibition, with No Changes

This paragraph restates the requirements of paragraph (h) of AD 2014-08-01, with no changes. As of March 26, 2014 (the effective date of AD 2014-03-08), no person may install an interconnecting strut with a part number specified in figure 1 to paragraphs (g) and (h) of this AD, on any airplane, except for parts identified in paragraph (g)(2)(ii) of this AD, provided that the actions in paragraph (g)(2)(ii) are done. As of the effective date of this AD, comply with the requirements of paragraph (l) of this AD in lieu of the requirements of this paragraph.

(i) New Requirements of this AD: Inspection to Determine the Part Number of the Interconnecting Struts and the Associated Target and Proximity sensor

Within 24 months after the effective date of this AD, accomplish the actions specified in paragraphs (i)(1) and (i)(2) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015. Accomplishment of the actions specified in this paragraph terminates the requirements of paragraph (g) of this AD.

(1) Inspect to determine the part number of the interconnecting struts installed on both the LH and RH wings on the airplane.

(2) If an interconnecting strut is installed with a part number specified in figure 2 to paragraphs (i)(2), (k), and (l) of this AD, identify the part number and the serial number of the associated target and proximity sensor; and for the target and proximity sensor part number and serial number combination specified in paragraph (j) of this AD, within the compliance times specified in paragraph (j) of this AD, do the actions specified in paragraph (j) of this AD for that interconnecting strut.

Figure 2 to paragraphs (i)(2), (k), and (l) of this AD – Affected Interconnecting Struts
*(XXX signifies any alpha-numeric combination.
It may be possible to find units with only XX)*

D57570305000XXX
D57570305001XXX
D57570305002XXX
D57570305006XXX
D57570305008XXX
D57570305010XXX
D57570305012XXX
D57570322000XXX

(j) New Requirements of this AD: Replacement or Reidentification

(1) If the target serial number is lower than 1600 or is unreadable, and the proximity sensor part number is P/N ABS0121-31 or P/N 8-372-04 with a serial number between S/N C59198 and C59435, or S/N C500000 or higher: Before further flight, do the actions required by paragraph (j)(1)(i) or (j)(1)(ii) of this AD. For the purposes of paragraph (j) of this AD, a serviceable interconnecting strut is a unit which has been determined to be in compliance with the requirements of paragraphs (i) and (j) of this AD.

(i) Replace the interconnecting strut with a serviceable unit, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015.

(ii) Do a general visual inspection of the flap down drive to detect discrepancies, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015.

(A) If no discrepancy is found, within 50 flight cycles after the inspection, replace the interconnecting strut with a serviceable unit, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015.

(B) If any discrepancy is found, before further flight, replace the interconnecting strut with a serviceable unit, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015.

(2) If the target serial number is 1600 or higher (with any proximity sensor part number and serial number): Within 24 months after the effective date of this AD, re-identify the interconnecting strut, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 02, dated November 2, 2015.

(k) Additional Provisions of this AD

(1) Airplanes on which Airbus Modification 27956 has been embodied in production, and on which no interconnecting strut with a part number identified in figure 2 to paragraphs (i)(2), (k), and (l) of this AD is installed since the airplane's first flight, are not affected by the requirements of paragraph (i) of this AD, except for those manufacturer serial numbers specified in figure 3 to paragraph (k)(1) of this AD.

Airplanes having manufacturer serial numbers specified in figure 3 to paragraph (k)(1) of this AD are affected by the requirements of paragraph (i) of this AD.

(2) For an airplane that has already been inspected before the effective date of this AD as specified in the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, dated January 28, 2011; or Revision 1, dated October 10, 2011: Within

the compliance time specified in paragraph (i) of this AD, accomplish the additional work specified in and in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1206, Revision 2, dated November 2, 2015, unless it is determined that no interconnecting strut with a part number specified in figure 2 to paragraphs (i)(2), (k), and (l) of this AD is installed on that airplane. A review of airplane maintenance records is acceptable to make this determination, provided the part number can be conclusively identified from that review.

Figure 3 to paragraph (k)(1) of this AD – Additional Affected Manufacturer Serial Numbers

Airplane Model—	Affected Manufacturer Serial Numbers—			
	1857	1858	1860	1861
	1864	1865	1867	1868
	1871	1873	1874	1877
	1879	1883	1885	1888
	1889	1891	1892	1894
	1895	1896	1898	1899
	1900	1902	1903	1904
A320 series airplanes	1906	1907	1909	1910
	1911	1913	1914	1915
	1917	1918	1920	1922
	1924	1927	1929	1931
	1933	1935	1937	1940
	1942	1944	1945	1948
	1949	1951	1954	1957
	1958	1961	1964	1965
	1968	1969	1973	1975

Airplane Model—	Affected Manufacturer Serial Numbers—			
	1979	1981	1983	1987
	1819	1820	1824	1826
	1831	1833	1837	1839
	1841	1844	1846	1851
A319 series airplanes	1853	1855	1863	1866
	1870	1872	1875	1876
	1880	1882	1884	1886
	1890	1893	1897	1901
	1908	1912	1916	1923
	1925	1934	1936	1938
	1943	1947	—	—

(l) New Requirement of this AD: Parts Installation Limitations

As of the effective date of this AD, no person may install, on any airplane, an interconnecting strut with a part number specified in figure 2 to paragraphs (i)(2), (k), and (l) of this AD, unless it has been modified in accordance with the requirements of this AD.

(m) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before March 26, 2014 (the effective date of AD 2014-03-08), using Airbus Service Bulletin A320-27-1206, dated January 28, 2011, and if additional work has been accomplished using Airbus Service Bulletin A320-27-1206, Revision 01, dated October 10, 2011.

(n) Other FAA AD Provisions

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. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(ii) AMOCs approved previously for AD 2014-08-01 are approved as AMOCs for the corresponding provisions of paragraphs (g) and (h) of this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(o) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0113, dated June 15, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-0476.

(2) 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 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.

Issued in Renton, Washington, on May 11, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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