Airworthiness Directive

AD No.: 2016-0132
[Correction: 20 July 2016]

Issued: 05 July 2016

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:	Type/Model designation(s):
AIRBUS	A318, A319, A320 and A321 aeroplanes

Effective Date:	19 July 2016
TCDS Number(s):	EASA.A.064
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2014-0217R1 dated 26 February 2015.

ATA 22, 31 – Auto Flight / Instruments – Stop Rudder Input Warning – Installation / Activation

Manufacturer(s):
Airbus (formerly Airbus Industrie)

Applicability:
Airbus A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231 and A321-232 aeroplanes, all manufacturer serial numbers.

Reason:
During design reviews that were conducted following safety recommendations related to in-service incidents and one accident on another aircraft type, it has been determined that, in specific flight conditions, the allowable load limits on the vertical tail plane could be reached and possibly exceeded.

This condition, if not corrected, could lead to in-flight detachment of the vertical tail plane, possibly resulting in loss of control of the aeroplane.

To address this unsafe condition, Airbus developed modifications within the flight augmentation computer (FAC) to reduce the vertical tail plane stress and to activate a conditional aural warning within the flight warning computer (FWC) to further protect against pilot induced rudder doublets.

Consequently, EASA issued AD 2014-0217 (later revised) to require installation and activation of the stop rudder input warning (SRIW) logic. In addition, that AD required upgrades of the FAC and FWC, to introduce the SRIW logic and SRIW aural capability, respectively. After modification, the AD prohibited (re)installation of certain Part Number (P/N) FWC and FAC.

Since EASA AD 2014-0217R1 was issued, Airbus made available additional modification instructions that, for certain aeroplanes, must be accomplished to allow installation of the minimum FWC and FAC configuration compatible with SRIW activation.

For the reasons described above, this AD retains the requirements of EASA AD 2014-0217R1, which is superseded, and includes reference to modification instructions, which must be accomplished on certain aeroplanes.

This AD is republished to remove a typographical error in Appendix 1.

Required Action(s) and Compliance Time(s):
Required as indicated, unless accomplished previously:

(1) Within 48 months after 10 October 2014 [the effective date of the original issue of EASA AD 2014-0217], modify the pin programming to activate the SRIW logic in accordance with the instructions of Airbus Service Bulletin (SB) A320-22-1480.

(2) Prior to, or concurrent with, modification of an aeroplane as required by paragraph (1) of this AD, identify the P/N of the FWC and of the FAC installed on the aeroplane and, if the FWC and/or FAC P/N installed on aeroplane is listed in Table 1 or Table 2 of this AD, replace the FWC and/or FAC, as applicable, with a unit having a P/N listed in Appendix 1 of this AD, compatible with the aeroplane configuration, as defined in Appendix 1 of this AD.
This can be accomplished in accordance with the instructions of Airbus SB listed in the Ref. Publications section of this AD.

Installation on an aeroplane of a FWC and/or FAC, having a P/N listed in Appendix 1 of this AD, in accordance with the instructions of an Airbus modification instruction applicable to the configuration of that aeroplane is acceptable to comply with this requirement for that aeroplane.

Table 1 – FWC P/N non-compatible with SRIW activation

350E016187171 (C5)	350E018301919 (H1-E3P)	350E053020707 (H2-F3)
350E017238484 (H1-D1)	350E018312020 (H1-E3Q)	350E053021010 (H2-F3P)
350E017248685 (H1-D2)	350E053020202 (H2-E2)	350E053020808 (H2-F4)
350E017251414 (H1-E1)	350E053020303 (H2-E3)	350E053020909 (H2-F5)
350E017271616 (H1-E2)	350E053020404 (H2-E4)	350E053021111 (H2-F6)
350E018291818 (H1-E3CJ)	350E053020606 (H2-F2)	

Table 2 – FAC P/N non-compatible with SRIW activation

B397AAM0202	B397AAM0509	B397BAM0508	B397BAM0617
B397AAM0301	B397AAM0510	B397BAM0509	B397BAM0618
B397AAM0302	B397BAM0101	B397BAM0510	B397BAM0619
B397AAM0303	B397BAM0202	B397BAM0511	B397BAM0620
B397AAM0404	B397BAM0203	B397BAM0512	B397CAM0101
B397AAM0405	B397BAM0305	B397BAM0513	B397CAM0102
B397AAM0506	B397BAM0406	B397BAM0514	Soft P/N G2856AAA01 installed on hard P/N C13206AA00
B397AAM0507	B397BAM0407	B397BAM0515	
B397AAM0508	B397BAM0507	B397BAM0616	

(3) An aeroplane on which Airbus modification (mod) 154473 (installation and activation of the SRIW function) has been embodied in production is compliant with the requirements of paragraphs (1) and (2) of this AD, provided it is determined that no FWC having a P/N listed in Table 1, and no FAC having a P/N listed in Table 2, respectively, of this AD, is installed on that aeroplane. If a post-mod 154473 aeroplane is found having FWC and/or FAC P/N installed as listed in Table 1 or Table 2 of this AD, before next flight after the effective date of this AD, modify the aeroplane as required by paragraph (2) of this AD.

(4) Do not install on any aeroplane a FWC having a P/N listed in Table 1 of this AD, or a FAC having a P/N listed in Table 2 of this AD, as applicable, as required by paragraph (4.1) or (4.2) of this AD, as applicable.

(4.1) For an aeroplane that has a FWC installed, having a P/N listed in Table 1 of this AD, or a FAC installed, having a P/N listed in Table 2 of this AD: After modification of that aeroplane as required by paragraph (2) or (3) of this AD, as applicable.

(4.2) For an aeroplane that does not have a FWC installed, having a P/N listed in Table 1 of this AD, and does not have a FAC installed, having a P/N listed in Table 2 of this AD: From the effective date of this AD.

(5) Installation on an aeroplane of a version (P/N) of the FWC or FAC approved after 10 October 2014 [the effective date of EASA AD 2014-0217] is equal to compliance with the requirements of paragraph (2) or (3) of this AD for that aeroplane, provided the conditions as specified in paragraphs (5.1) and (5.2) of this AD are met.

(5.1) The version (P/N) must be approved by EASA, or approved under Airbus Design Organisation Approval (DOA); and

(5.2) The installation must be accomplished in accordance with modification instructions applicable to the configuration of that aeroplane, approved by EASA or under Airbus DOA.

Ref. Publications:
Airbus SB A320-22-1375 original issue, dated 15 January 2014.

Airbus SB A320-22-1427 original issue, dated 25 January 2013.

Airbus SB A320-22-1447 original issue, dated 18 October 2013.

Airbus SB A320-22-1461 original issue, dated 31 October 2013.

Airbus SB A320-22-1480 original issue, dated 09 July 2014, or Revision 01, dated 06 February 2015, or Revision 02, dated 30 March 2015, or Revision 03, dated 13 October 2015.

Airbus SB A320-22-1454 original issue, dated 12 February 2014.

Airbus SB A320-22-1502 original issue, dated 14 November 2014.

Airbus SB A320-22-1516 original issue, dated 17 July 2015.

Airbus SB A320-22-1539 original issue, dated 08 December 2015, or Revision 01, dated 24 February 2016.

Airbus SB A320-22-1553 original issue, dated 21 March 2016.

Airbus SB A320-22-1554 original issue, dated 19 April 2016.

Airbus SB A320-31-1414 original issue, dated 19 December 2012.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 10 May 2016 as PAD 16-066 for consultation until 07 June 2016. The Comment Response Document can be found at http://ad.easa.europa.eu.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EIAS; Fax +33 5 61 93 44 51;
E-mail: account.airworth-eas@airbus.com.

Appendix 1 – FWC and FAC installation compatible with activation of SRIW

	Aeroplane Configuration						
	A318	A319		A320		A321	
	Without Sharklet	Without Sharklet	With Sharklet	Without Sharklet	With Sharklet	Without Sharklet	With Sharklet
FAC P/N B397BAM0621 (621 hard B)	CFM	X	NC	X	NC	X	NC
FAC P/N B397BAM0622 (622 hard B)	CFM	X	CFM	NC	X	X	NC
FAC P/N B397BAM0623 (623 hard B)	CFM	X	X	X	X	X	X
FAC P/N B397BAM0624 (624 hard B)	X	X	X	X	X	X	X
FAC soft P/N G2856AAA02 installed on hard P/N C13206AA00 (CAA02 hard C)	CFM	X	X	X	X	X	X
FAC soft P/N G2856AAA03 installed on hard P/N C13206AA00 (CAA03 hard C)	X	X	X	X	X	X	X
FAC soft P/N G2856AAA04 installed on hard P/N C13206AA00 (CAA04 hard C)	X	X	X	X	X	X	X
FWC P/N 350E053021212 (H2-F7)	X	X	X	X	X	X	X
FWC P/N 350E053021313 (H2-F8P)	X	X	X	X	X	X	X
FWC P/N 350E053021414 (H2-F8)	X	X	X	X	X	X	X

‘X’ mean that the FAC / FWC is compatible with any engine installation for that aeroplane model.

‘CFM’ mean that the FAC / FWC is compatible with CFM engine installation for that aeroplane model.

‘NC’ mean that the FAC / FWC is not compatible with that aeroplane configuration.