



## 適航指令發布單

### Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2021-04-014	發布日期 Date issued	2021/4/29
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A319-151N, A319-153N, A319-171N, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A320-251N, A320-252N, A320-253N, A320-271N, A320-272N, A320-273N, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, A321-232, A321-251N, A321-252N, A321-253N, A321-251NX, A321-252NX, A321-253NX, A321-271N, A321-272N, A321-271NX and A321-272NX aeroplanes, all manufacturer serial numbers.		
主旨摘要	Windows - Windshields - Inspection		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> FAA  <input checked="" type="checkbox"/> EASA  <input type="checkbox"/> Brazil  <input type="checkbox"/> Transport Canada Civil Aviation  <input type="checkbox"/> DGAC             </div> <div style="width: 48%;"> <input type="checkbox"/> Germany LBA  <input type="checkbox"/> CAA-NL  <input type="checkbox"/> UK CAA  <input type="checkbox"/> Japan CAB  <input type="checkbox"/> CAA of Israel  <input type="checkbox"/> Other _____             </div> </div>		
	設計國 AD 編號 Original AD number	2021-0111	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ <input type="checkbox"/>		
	2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do <input type="checkbox"/> Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 56. Ref. Publications: Airbus SB A320-56-1022 original issue dated 28 January 2021. and Airbus SB A320-56-1023 original issue dated 28 January 2021. and SGS SB STA320-56-001 original issue dated 25 January 2021.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a>			



## Airworthiness Directive

**AD No.:** 2021-0111

**Issued:** 22 April 2021

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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 (EU) 2018/1139, Article 71 exemption].

**Design Approval Holder's Name:**

AIRBUS

**Type/Model designation(s):**

A318, A319, A320 and A321 aeroplanes

**Effective Date:** 06 May 2021

**TCDS Number(s):** EASA.A.064

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 56 – Windows – Windshields – Inspection

#### Manufacturer(s):

Airbus, formerly Airbus Industrie

#### Applicability:

A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A319-151N, A319-153N, A319-171N, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A320-251N, A320-252N, A320-253N, A320-271N, A320-272N, A320-273N, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, A321-232, A321-251N, A321-252N, A321-253N, A321-251NX, A321-252NX, A321-253NX, A321-271N, A321-272N, A321-271NX and A321-272NX aeroplanes, all manufacturer serial numbers.

#### Definitions:

For the purpose of this AD, the following definitions apply:

**Affected part:** Windshields having Part Number (P/N) as defined in Table 1 of this AD. Depending on its P/N, an affected part is then Group 1, Group 2 or Group 3.

**New/repaired part:** Any affected part which is new; or which accumulated 0 flight hours (FH) since a repair, accomplished by SAINT-GOBAIN SULLY (SGS), including "Outer ply replacement".



**Serviceable part:** Any windshield, eligible for installation, which is not an affected part; or an affected part which is a new/repairs part, as defined in this AD; or an affected part (not new) that before next installation, or before next flight after installation, passes (no defects found) a detailed inspection (DET) and passes (results included in the “green area” or “amber area”, as identified in the SB) an electrical test measurement (ETM), as applicable, in accordance with the instructions of the SB.

**Aeroplane date of manufacture:** The date of transfer of title (ownership) which is referenced in Airbus documentation at the time of first delivery to an operator.

**Date of first installation:** For an affected part, the date of first installation on an aeroplane. If unknown, or for a part not replaced in service, the aeroplane date of manufacture must be used instead.

**The SB:** Airbus Service Bulletin (SB) A320-56-1022 or Airbus SB A320-56-1023, as applicable, and Saint-Gobain Sully SB STA320-56-001.

**Groups:** Group A aeroplanes are those that have an affected part installed.

Group B aeroplanes are those that do not have an affected part installed.

Note 1: An aeroplane on which Airbus modification 167352 has been embodied in production (Windshield having P/N STA320-1-9-3 or STA320-2-9-3) is Group B, provided that no affected part has been installed on that aeroplane since its date of manufacture.

#### Reason:

An occurrence was reported where an A319 aeroplane lost in flight the right windshield, with consequent rapid cockpit depressurization, causing damage to cockpit items/systems and significant increase of flight crew workload. The investigations identified several contributing factors (including manufacturing variability, fretting between windshield components, water ingress, electrical braids corrosion) which led to a thermal shock/overheat, damaging more than one windshield structural plies and impairing the structural integrity of the windshield.

This condition, if not detected and corrected, could lead to failure of the windshield, possibly resulting in injury to the flight crew, in-flight depressurization of the aeroplane, and would require exceptional piloting skill to maintain control the aeroplane.

To address this potential unsafe condition, Airbus issued the SB to provide instructions for repetitive inspections of the affected parts.

For the reasons described above, this AD requires repetitive DET and ETM of the affected parts, and, depending on findings, accomplishment of applicable corrective action(s).



**Required Action(s) and Compliance Time(s):**

Required as indicated, unless accomplished previously:

Table 1 – Affected Parts P/N and Groups

Affected Part Group	SGS Windshield P/N	
	Left-hand side	Right-hand side
<b>Group 1</b>	STA320-1-7-1	STA320-2-7-1
<b>Group 2</b>	STA320-1-8-2	STA320-2-8-2
<b>Group 3</b>	STA320-1-3-1	STA320-2-3-1
	STA320-1-4-1	STA320-2-4-1
	STA320-1-5-1	STA320-2-5-1
	STA320-1-6-1	STA320-2-6-1

**Inspection(s):**

- (1) For Group A aeroplanes: Within the compliance times as specified in Table 2 of this AD, and thereafter, at intervals not exceeding 750 flight hours (FH), 750 flight cycles (FC) or 4 months, whichever occurs first, accomplish a DET followed by an ETM of each Group 1 affected part, as applicable, in accordance with the instructions of the SB.

Table 2 – Group 1 Affected Parts – Initial DET / ETM

Compliance Time(s) (whichever occurs later, <b>A</b> or <b>B</b> )	
<b>A</b>	Within 750 FH, 750 FC, or 4 months, whichever occurs first after the effective date of this AD
<b>B</b>	Before exceeding 750 FH, 750 FC, or 4 months, whichever occurs first since the date of first installation

- (2) For Group A aeroplanes: Within the threshold as identified in Table 3 of this AD, as applicable, and, thereafter, at intervals not exceeding 7 500 FH, 7 500 FC or 24 months, whichever occurs first, accomplish a DET followed by an ETM of each Group 2 affected part, as applicable, in accordance with the instructions of the SB.



Table 3 – Group 2 Affected Parts – DET and ETM thresholds

<b>Condition on windshield maintenance history</b> (see Note 2 of this AD)	<b>Condition on windshield age / utilization</b> (see Notes 3 and 4 of this AD)	<b>Threshold</b> (after the effective date of this AD, or since the date of first installation, whichever occurs later)
Fault message "561000L(R) WINDSHIELD SENSOR" recorded since windshield installation on an aeroplane OR unknown maintenance history	n/a	Within 750 FH, 750 FC or 4 months, whichever occurs first
Fault message "561000L(R) WINDSHIELD SENSOR" NOT recorded since windshield installation on an aeroplane	Windshield age / utilization being more than 48 months, or 10 000 FC or 15 000 FH	Within 3 750 FH, 3 750 FC or 12 months, whichever occurs first
	Windshield age / utilization being less or equal to 48 months, and 10 000 FC and 15 000 FH	Within 7 500 FH, 7 500 FC or 24 months, whichever occurs first

Note 2: Any fault message "561000L(R) WINDSHIELD SENSOR" recorded after the identification of the DET and ETM threshold applicable for a Group 2 affected part, does not require re-assessment of the DET and ETM threshold for that windshield.

Note 3: If no data, or only partial data, is available, operators may refer to the guidance specified in Airworthiness Limitations Section (ALS) Part 1 Section 1 Chapter 5.2 (traceability) to determine the age/utilisation of the windshield.

Note 4: Windshield age and utilization are counted since the date of first installation, as defined in this AD, or since first installation of that part after a repair accomplished by SAINT-GOBAIN SULLY and including "Outer ply replacement".

- (3) If, during any ETM as required by paragraph (2) of this AD, the results are found to be in the "amber area", as identified in the SB, accomplish subsequent DET and ETM of that affected part at intervals not exceeding 750 FH, 750 FC or 4 months, whichever occurs first.
- (4) For Group A aeroplanes: Within 750 FH, 750 FC, or 4 months, whichever occurs first after the effective date of this AD or since the date of first installation, whichever occurs later, and, thereafter, at intervals not exceeding 750 FH, 750 FC or 4 months, whichever occurs first, accomplish a DET of each Group 3 affected part, as applicable, in accordance with the instructions of the SB.



**Corrective Action(s):**

- (5) If, during any DET as required by paragraph (1), (2), (3) or (4) of this AD, as applicable, any defect, as identified in the SB, is found on an affected part, before next flight, replace that affected part with a serviceable part in accordance with the instructions of the SB.
- (6) If, during any ETM as required by paragraph (1), (2) or (3) of this AD, as applicable, the results are found to be in the “red area”, as identified in the SB, before next flight, replace that affected part with a serviceable part in accordance with the instructions of the SB.
- (7) Replacement of an affected part with a serviceable part on an aeroplane, as required by paragraph (5) or (6) of this AD, as applicable, can be deferred in accordance with the applicable instructions and limitations of Master Minimum Equipment List (MMEL) item 30-42-03A or 30-42-03B.

**Terminating Action:**

- (8) For Group A aeroplanes: Replacement on an aeroplane of each affected part with a not affected part constitutes terminating action for the repetitive inspections as required by paragraphs (1) to (4) of this AD, as applicable for that aeroplane, provided that, following that replacement, no affected part is installed on that aeroplane.

**Parts Installation:**

- (9) For Group A and Group B aeroplanes: From the effective date of this AD, it is allowed to install on any aeroplane a windshield, provided it is a serviceable part, as defined in this AD. Following installation of an affected part on an aeroplane, that aeroplane is effectively a Group A aeroplane, and that affected part must be inspected as required by this AD. For an affected part, which is not new/repairs, as defined in this AD, the first inspection after that installation can be deferred up to the applicable interval for repetitive inspection, provided that part accumulated 0 FH since last inspection, and has been stored in accordance with the instructions of the applicable Component Maintenance Manual.

**Reporting:**

- (10) Within 30 days after accomplishment of the initial DET and ETM as required by paragraph (1), (2) or (4) of this AD, as applicable, or after the effective date of this AD, whichever occurs later, report the inspection results (including no findings) to Airbus. Using the inspection report attached to the SB is an acceptable method to comply with this requirement.
- (11) Within 90 days after accomplishment of subsequent DET and ETM as required by paragraph (1) to (4) of this AD, report any inspection finding to Airbus. Using the inspection report attached to the SB is an acceptable method to comply with this requirement.

**Ref. Publications:**

Airbus SB A320-56-1022 original issue dated 28 January 2021.

Airbus SB A320-56-1023 original issue dated 28 January 2021.

SGS SB STA320-56-001 original issue dated 25 January 2021.



The use of later approved revisions of the above-mentioned 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 02 March 2021 as PAD 21-033 for consultation until 30 March 2021. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this AD.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – IIASA; E-mail: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com).

