

# Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 25-077

Issued: 26 May 2025

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

# Design Approval Holder's Name: Type/Model designation(s):

AIRBUS S.A.S. A321 aeroplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2022-0176 dated 24 August 2022 and EASA AD

2024-0057 dated 28 February 2024.

# ATA 25 – Equipment / Furnishings – Escape Slide Inflation Reservoir Regulator Valve – Inspection / Modification

#### Manufacturer(s):

Airbus, formerly Airbus Industrie.

# **Applicability:**

Airbus A321-251NX, A321-252NX, A321-253NX, A321-271NX and A321-272NX aeroplanes, all manufacturer serial numbers.

#### **Definitions:**

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

**Affected reservoir:** Any reservoir having a Part Number (P/N) as defined in Appendix 1 of this AD and a serial number (s/n) as defined in the VSB1.

**Intermediate reservoir:** Any affected reservoir that has been modified in accordance with the instructions of the AOT1 or the VSB1.



**Serviceable reservoir:** Any reservoir, eligible for installation in accordance with instructions approved by Airbus, that is neither an affected reservoir nor an intermediate reservoir.

Affected orifice fitting: Any orifice fitting having P/N M3SP-303-004-E installed on a reservoir having a P/N as defined in Appendix 1 of this AD and a s/n as identified in the VSB2, except those that have been modified in accordance with the instructions of the AOT2 (original issue or Revision 01) or the VSB2 (original issue or Revision 01).

**Serviceable orifice fitting:** Any orifice fitting, eligible for installation in accordance with instructions approved by Airbus, that is not an affected orifice fitting.

**The AOT1:** Airbus Alert Operators Transmission (AOT) A25N024-22.

The AOT2: Airbus Alert Operators Transmission (AOT) A25N027-23 Revision 01.

The VSB1: Vendor (Safran) Service Bulletin (VSB) 005-25-37 or VSB 005-25-38.

The VSB2: VSB 005-25-45 Revision 01 or VSB 005-25-46 Revision 01, as applicable.

The SB: Airbus Service Bulletin (SB) A320-25-1CJM.

# **Groups:**

Group 1a aeroplanes are those on which an affected reservoir is installed. Group 1b aeroplanes are those on which an affected orifice fitting is installed. Depending on the configuration of an aeroplane, an aeroplane can be Group 1a and Group 1b aeroplane.

Group 2 aeroplanes are those on which no affected reservoir and no affected orifice fitting are installed.

Aeroplanes on which Airbus modification (mod) as specified in Appendix 2 of this AD were embodied in production are considered a Group 2 aeroplane, provided that an affected reservoir or an affected orifice fitting has not been installed on that aeroplane since aeroplane date of manufacture.

**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.

### Reason:

An occurrence has been reported of uncommanded door 3 escape slide release during flight.

Investigation identified that accumulation of gas, leaking from the reservoir regulator valve, initiated the slide enclosure door panel release and liberation of the slide in a non-inflated condition. Investigation also determined that the most probable root cause of both panel and slide inflatable assembly release in flight is the blockage of one of the system venting features.



This condition, if not detected and corrected, could lead to deployment in flight of a non-inflated slide, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Airbus issued the AOT1 providing instructions to remove the orifice protective cover fitted on affected reservoirs. Consequently, EASA issued AD 2022-0176 to require modification of the affected reservoirs.

After issuance of AD 2022-0176, following a quality review during manufacturing, a quality escape was identified on A321NX door 3 and Offwing inflation reservoirs' venting holes, where a torque strip indicator (material "Dykem") has been applied on the orifice fitting.

This condition, in combination with a slide reservoir pressure loss, if not detected and corrected, could lead to deployment in flight of a non-inflated slide, possibly resulting in damage to, and reduced control of, the aeroplane.

To address this potential unsafe condition, Airbus issued the AOT2 which refers to the VSB2 to provide instructions for inspection and corrective action(s) of affected orifice fittings.

Consequently, EASA issued AD 2024-0048 to require a one-time general visual inspection (GVI) of those affected orifice fittings, and, in case of findings, replacement of the orifice fitting.

That AD has been superseded by AD 2024-0057, following publication by Safran of the VSB2 at Revision 1 to update the list of affected orifice fittings and publication by Airbus of the AOT2 to require additional work.

Since EASA AD 2022-0176 and AD 2024-0057 were issued, Airbus issued the SB to introduce a new inflation reservoir design on Door 3 and over wing inflation reservoir, preventing uncommanded slide deployment.

For the reasons described above, this AD retains the requirements of EASA AD 2022-0176 and EASA AD 2024-0057, which are superseded, and requires accomplishment of the modification.

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

# Restatement of the Requirements of EASA AD 2022-0176

#### Removal:

(1) For Group 1a aeroplanes: Within 3 months after 07 September 2022 [the effective date of EASA AD 2022-0176], modify the affected reservoir in accordance with the instructions of the AOT1. After this modification, the affected reservoir is considered an intermediate reservoir.



# Restatement of the Requirements of EASA AD 2024-0057

### Inspection:

(2) For Group 1b aeroplanes: Within 3 months after 01 March 2024 [the effective date of EASA AD 2024-0048], accomplish a GVI of each affected orifice fitting, except as specified in paragraph (8) of this AD, in accordance with the instructions of the AOT2.

# Corrective Action(s):

- (3) If, during the inspection as required by paragraph (2) of this AD, discrepancies, as defined in the AOT2, are detected on an affected orifice fitting, before next flight, replace that affected orifice fitting with a serviceable orifice fitting, in accordance with the instructions of the AOT2.
- (4) Replacing a reservoir with a reservoir not having an affected orifice fitting installed is an acceptable method to comply with the requirement of paragraph (3) of this AD for that aeroplane, as applicable.

# **Credit:**

(5) Inspections and corrective action(s), accomplished on an affected orifice fitting before 13 March 2024 [the effective date of EASA AD 2024-0057] in accordance with the instructions of the original issue of the AOT2 are acceptable to comply with the requirements of paragraphs (2) and (3) of this AD, as applicable, for that affected orifice fitting.

# Part(s) Installation:

(6) For all aeroplanes: From 13 March 2024 [the effective date of EASA AD 2024-0057], do not install an affected orifice fitting on any aeroplane.

# **New Requirements of this AD**

#### **Modification:**

- (7) For Group 1a aeroplanes: Except as specified in paragraph (8) of this AD, within 36 months after the effective date of this AD, modify and re-identify each affected or intermediate reservoir in accordance with the instructions of the SB.
- (8) Replacement of an affected or intermediate reservoir with a serviceable reservoir, accomplished in accordance with the instructions of the SB, is an acceptable method to comply with the requirement of paragraph (7) of this AD for that reservoir of that aeroplane.
- (9) For aeroplanes that have Airbus MOD 161964 and MOD 161796 embodied in production, the inspection as required by paragraph (2) and modification as required by paragraph (7) of this AD does not need to be accomplished on door 3 FIN positions 7693MM and 7694MM.

### Part(s) Installation:

- (10) Do not install an affected or intermediate reservoir on any aeroplane, as required by paragraph (10.1) or (10.2) of this AD, as applicable.
  - (10.1) For Group 1a aeroplanes: After modification as required by paragraph (7) of this AD.
  - (10.2) For aeroplanes which are not Group 1a aeroplanes: From the effective date of this AD.



# **Ref. Publications:**

Airbus AOT A25N024-22 original issue dated 03 August 2022.

Airbus AOT 25N027-23 original issue dated 16 January 2024 or Revision 01 dated 26 February 2024.

Airbus SB A320-25-1CJM original issue dated 10 December 2024.

Safran SB 005-25-37 original issue dated 01 August 2022 or Revision 1 dated 06 April 2023.

Safran SB 005-25-38 original issue dated 01 August 2022 or Revision 1 dated 06 April 2023.

Safran SB 005-25-45 Revision 1 dated 09 February 2024 or Revision 2 dated 22 July 2024.

Safran SB 005-25-46 Revision 1 dated 09 February 2024 or Revision 2 dated 22 July 2024.

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

#### **Remarks:**

- 1. This Proposed AD will be closed for consultation on 16 June 2025.
- 2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
- 3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the <u>EU aviation safety reporting system</u>. This may include reporting on the same or similar components, other than those covered by the design to which this PAD 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.
- 4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS Airworthiness Office 1IASA; E-mail: <a href="mailto:account.airworth-eas@airbus.com">account.airworth-eas@airbus.com</a> .



**Appendix 1** – Affected Reservoirs and Locations

	P/N	Location	Functional Item Number (FIN)
Escape slide inflation reservoir	70197-101	Left-hand (LH) emergency exit door 3 slide, overhead storage compartment (OHSC)	7693MM
	70197-101	Right-hand (RH) emergency exit door 3 slide, OHSC	7694MM
Offwing slide inflation reservoir	70200-101	LH offwing slide, cargo compartment	7683MM
	70200-102	RH offwing slide, cargo compartment	7684MM
	70200-103	LH offwing slide, OHSC	7685MM
	70200-104	RH offwing slide, OHSC	7686MM

**Appendix 2** – Airbus mods for Group 2 definition

Airbus mod	Airbus mod Title		
173621	E/F - ESCAPE FACILITIES - CABIN - INSTALL MODIFIED PRESSURE RESERVOIR IN CARGO COMPARTMENT FOR OWS		
173622	E/F - ESCAPE FACILITIES - CABIN - INSTALL MODIFIED PRESSURE RESERVOIR FOR OHSC VARIANT FOR OWS		
173623	E/F - ESCAPE FACILITIES - CABIN - INSTALL MODIFIED PRESSURE RESERVOIR AT DOOR 3 POSITION		
161964	Remove slides and pressure reservoirs due to plug of door 3 for NEO ACF		

Aeroplanes	Airbus mod embodied	Door 3 reservoir status
Configuration		(left hand and right hand)
1	173621 and 173623	Not plugged
2	173622 and 173623	Not plugged
3	173621 and 161964	Plugged
4	173622 and 161964	Plugged