



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 23-099

Issued: 04 September 2023

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:

AIRBUS S.A.S.

Type/Model designation(s):

see Applicability

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

TCDS Number(s): EASA.A.064, EASA.A.004, EASA.A.014, EASA.A.015, EASA.A.110, EASA.A.151 and EASA.A.172

Foreign AD: None

Supersedure: This AD supersedes EASA AD 2020-0274 dated 10 December 2020.

ATA 24 – Electrical Power – Nickel-Cadmium Rechargeable Batteries – Replacement

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, 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, A321-251NX, A321-252N, A321-252NX, A321-253N, A321-253NX, A321-271N, A321-271NX, A321-272N and A321-272NX aeroplanes; and

Airbus A300 B1, A300 B2-1A, A300 B2-1C, A300 B2K-3C, A300 B2-202, A300 B2-203, A300 B2-320, A300 B4-2C, A300 B4-102, A300 B4-103, A300 B4-120, A300 B4-203, A300 B4-220, A300 C4-203, A300 F4-203, A310-203, A310-221, A310-222, A310-204, A310-203C, A310-322, A310-304, A310-324, A310-308, A310-325, A300 B4-620, A300 B4-601, A300 B4-603, A300 B4-622, A300 C4-620, A300 B4-605R, A300 B4-622R, A300 F4-605R, A300 F4-622R and A300 C4-605R variant F aeroplanes; and



Airbus A300 F4-608ST aeroplanes; and

Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343, A330-743L, A330-841 and A330-941, aeroplanes; and

Airbus A340-211, A340-212, A340-213, A340-311, A340-312, A340-313 and A340-541, A340-542, A340-642 and A340-643 aeroplanes; and

Airbus A350-941 and A350-1041 aeroplanes; and

Airbus A380-841, A380-842 and A380-861 aeroplanes.

Definitions:

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

Affected part: Nickel-Cadmium (Ni-Cd) battery having Part Numbers (P/N) as defined in Table 1 of this AD, all serial numbers, except those which are serviceable parts, as defined in this AD.

Serviceable part:

A Ni-Cd battery having P/N as defined in Table 1 of this AD, which was fully (re)charged at constant current and, after (re)charging, was not stored on wing during a period exceeding the applicable Time Limit as defined in Table 1 of this AD.

Reason:

Results of the initial investigation by Airbus and the manufacturer of Ni-Cd batteries have determined that repetitive disconnection and reconnection of batteries during aeroplane parking or storage (as detailed in the applicable Aircraft Maintenance Manual) may lead to reduction of capacity of those batteries.

This condition, if not corrected, could lead to reduced battery endurance performance, possibly resulting in failure to supply the minimum essential electrical power during abnormal or emergency conditions.

To address this potential unsafe condition, Airbus issued Alert Operators Transmission (AOT) A24N006-20 (for A318, A319, A320 and A321 aeroplanes), A24L007-20 (for A330 and A340 aeroplanes) and A24R009-20 (for A380 aeroplanes), as applicable, to provide maintenance instructions to restore an aeroplane to an airworthy condition and to preserve battery capacity during an aeroplane parking or storage period. Prompted by this development, EASA issued AD 2020-0274 to require replacement of certain affected parts with serviceable parts and provided conditions for return to service of affected parts installed on parked or stored aeroplanes. That AD also introduced maintenance procedures as an alternative to battery replacement required by this AD.

Since that AD was issued Airbus and the Ni-Cd battery manufacturer determined that the on-wing preservation procedures originally provided in Airbus Alert Operators Transmission (AOT) A24N006-20 (for A318, A319, A320 and A321 aeroplanes), AOT A24L007-20 (for A330 and A340 aeroplanes),



AOT A24R009-20 (for A380 aeroplanes) and recommended in Airbus Operators Information Transmission (OIT) 999-0061-20-00 (for A350 aeroplanes) and OIT 999-0063-20-00 (for A300/A310 family aeroplanes) did not ensure the expected preservation of the battery capacity.

For the reasons described above, this AD supersedes EASA AD 2020-0274, extends the Applicability, and requires replacement of certain affected parts with serviceable parts as a precondition for return to service of aeroplanes from storage or parking.

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

Required as indicated, unless accomplished previously:

Replacement:

- (1) Before release to service of an aeroplane after a storage or parking period, as applicable, replace each affected part, as defined in this AD, with a serviceable part in accordance with approved Airbus maintenance instructions.

Table 1 – Battery P/N and Time Limits for on-wing battery storage

Aeroplane models	Battery P/N	Time Limit (months)
Airbus A318 / A319 / A320 / A321	285CH, 2758 or 416526	6
Airbus A330 Airbus A340	4059, 405CH or 505CH	
Airbus A350	505CH2	12
Airbus A380	505CH2	
Airbus A300/A300-600/A310 A300F4-608ST	2520	6

Terminating Action:

- (2) None.

Part(s) Installation:

- (3) From the effective date of this AD, it is allowed to release to service of an aeroplane after storage or parking period or install a Ni-Cd battery on an aeroplane which is released to service after storage or parking period, as applicable, provided that all Ni-Cd batteries installed on that aeroplane and having P/N as defined in Table 1 of this AD are serviceable parts.

Ref. Publications:

None.

Remarks:

1. This Proposed AD will be closed for consultation on 02 October 2023.
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 [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 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, as specified below:

For A320 family program: Airworthiness Office, E-mail: account.airworth-eas@airbus.com.

For A330 and A340 family program: Airworthiness Office,
E-mail: airworthiness.A330-A340@airbus.com.

For A350 family program: Airworthiness Office,
Email: continued-airworthiness.a350@airbus.com.

For A380 program: Airworthiness Office, E-mail: account.airworth-A380@airbus.com.

For A300/A310/A300-600 /A300F4-608ST - Airworthiness Office,
Email.: continued.airworthiness-wb.external@airbus.com.

