



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0044; Project Identifier MCAI-2023-00629-A; Amendment 39-22736; AD 2024-08-03]

RIN 2120-AA64

Airworthiness Directives; Britten-Norman Aircraft, Ltd. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Britten-Norman Aircraft, Ltd. Model BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B27, BN-2T, BN2T-4R, and BN2T-4S airplanes; and Model BN2A MK. III, BN2A MK. III-2, and BN2A MK. III-3 airplanes. This AD is prompted by reports of electrical cable (Coiled Kord) and flight control cables interference with the control column. This AD requires inspecting for interference between the control column, rudder pedal adjuster cable, and any wiring (including the Coiled Kord) concurrently with performing a flight control full and free movement inspection, and taking corrective actions if necessary. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0044; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information, contact Britten-Norman Aircraft Ltd., Bembridge Airport, Bembridge, Isle of Wight, PO35 5PR United Kingdom; phone: +44 20 3371 4000; email: customer.support@britten-norman.com; website: [britten-norman.com/approvals-technical-publications](https://www.britten-norman.com/approvals-technical-publications).

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0044.

FOR FURTHER INFORMATION CONTACT: Penelope Trease, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (303) 342-1094; email: penelope.trease@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Britten-Norman Aircraft, Ltd. Model BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, BN2T-

4R, and BN2T-4S airplanes; and Model BN2A MK. III, BN2A MK. III-2, and BN2A MK. III-3 airplanes. The NPRM published in the *Federal Register* on February 1, 2024 (89 FR 6452). The NPRM was prompted by AD G-2022-0017, dated September 20, 2022 (also referred to as the MCAI), issued by the Civil Aviation Authority (CAA), which is the aviation authority for the United Kingdom (UK). The MCAI states that there have been occurrences of flight control restriction in pitch during the pilot's full and free flight control checks prior to take-off. Investigations into these occurrences revealed interference between the routing of the Coiled Kord, flight control cables, and control column, which could restrict the full and free movement of the flight controls. An incorrectly routed Coiled Kord could snag the rudder pedal adjustment cable, draw it towards the control column tube where it could snag the aileron control stop, and restrict movement of the control column tube. This increased load on the rudder pedal adjustment cable could unlock the adjustment mechanism, permitting the rudder pedals to freely move forward and aft. One of the investigations also revealed that a correctly routed Coiled Kord was entangled with an incorrectly routed rudder pedal adjustment cable, which resulted in snagging the aileron control stop. In order to address this condition, the MCAI requires an inspection using Britten-Norman Service Bulletin SB 398, Issue 2, dated May 30, 2022 (Britten-Norman SB 398, Issue 2), to ensure the Coiled Kord is correctly routed behind the instrument panel and that the rudder pedal adjustment cable and Coiled Kord are not interfering with each other.

In the NPRM, the FAA proposed to require inspecting for interference between the control column, rudder pedal adjuster cable, and any wiring (including the Coiled Kord) concurrently with performing a flight control full and free movement inspection, and taking corrective actions if necessary. Interference between the Coiled Kord, flight control cables, and the control column, if not addressed, could result in loss of control of the airplane during flight.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0044.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from an individual. The commenter supported the NPRM without change.

Conclusion

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Britten-Norman SB 398, Issue 2, which specifies procedures for inspecting the cable routing behind the instrument panel to determine if the cables and wiring to the instrument panel, wiring in the surrounding area, the rudder pedal adjuster cable, and the Koiled Kord are routed securely and there is clearance to allow full and free movement of the flight controls, and if interference is found, securely tying the cables so they are clear of the control column for its full range of motion. 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 ADDRESSES.

Differences Between this AD and the MCAI

The MCAI specifies that if any interference is found during the inspection for interference between the control column, rudder pedal adjuster cable, and any wiring

(including the Koiled Kord) while performing a flight control full and free movement check, complete the operator feedback form in Appendix A of Britten-Norman SB 398, Issue 2, and return it to Britten-Norman Aircraft, Ltd. That action is not required by this AD.

Costs of Compliance

The FAA estimates that this AD affects 72 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Inspect for interference and full and free movement	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$6,120

The FAA estimates the following costs to do any necessary actions that would be required based on the results of the inspection. The agency has no way of determining the number of airplanes that might need these actions:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Correct Koiled Kord cable routing	Up to 3 work-hours x \$85 per hour = \$255	\$0	Up to \$255

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.

The FAA is 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

This AD will not have federalism implications under Executive Order 13132. This AD will 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 that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) 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 Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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 adding the following new airworthiness directive:

2024-08-03 Britten-Norman Aircraft, Ltd.: Amendment 39-22736; Docket No. FAA-2024-0044; Project Identifier MCAI-2023-00629-A.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Britten-Norman Aircraft Ltd airplanes, all serial numbers, certificated in any category, identified in paragraphs (c)(1) and (2) of this AD.

(1) Model BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, BN2T-4R, and BN2T-4S airplanes.

(2) Model BN2A MK. III, BN2A MK. III-2, and BN2A MK. III-3 airplanes.

(d) Subject

Joint Aircraft System Component (JASC) Code 2797, Flight Control System Wiring.

(e) Unsafe Condition

This AD was prompted by reports of electrical cable (Kooled Kord) and flight control cables interference with the control column. The FAA is issuing this AD to address interference between the Kooled Kord, flight control cables, and the control column, which could restrict the full and free movement of the flight controls. This unsafe condition, if not addressed, could result in loss of control of the airplane during flight.

(f) Compliance

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

(g) Definition

For the purposes of this AD, a Koiled Kord is the coiled electrical cable that carries the wires from switches on the control yoke, through the control column tube, to the rear of the instrument panel. It exits the control column tube behind the instrument panel and continues to a terminal block.

(h) Required Actions

(1) Within 100 hours time-in-service (TIS) after the effective date of this AD, inspect for interference between the control column, rudder pedal adjuster cable, and any other wiring, including the Koiled Kord, in accordance with Sections 6 and 7(1) of Britten-Norman Service Bulletin SB 398, Issue 2, dated May 30, 2022 (Britten-Norman SB 398, Issue 2), while concurrently performing a control column full and free movement inspection, in accordance with Section 8 of Britten-Norman SB 398, Issue 2, to inspect for free play, friction, binding, non-linear forces, and any remaining interference.

(2) If interference between the control column, the rudder pedal adjuster cable, and any other wiring, including the Koiled Kord, or any free play, friction, binding, non-linear forces, or any remaining interference was found during the inspections required by paragraph (h)(1) of this AD, before further flight, securely tie any interfering electrical cables clear of the control column for its full range of motion and perform a final full and free movement inspection in accordance with Section 8 of Britten-Norman SB 398, Issue 2, to inspect for free play, friction, binding, non-linear forces, and any remaining interference. If there is any free play, friction, binding, non-linear forces, or any remaining interference, before further flight resolve these issues in accordance with a method approved by the Manager, International Validation Branch, FAA; or the Civil

Aviation Authority United Kingdom (CAA UK); or Britten-Norman Aircraft Ltd.'s CAA UK Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, International Validation Branch, 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 manager of the International Validation Branch, mail it to the address identified in paragraph (j)(2) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email. 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.

(j) Additional Information

(1) Refer to CAA UK AD G-2022-0017, dated September 20, 2022, for related information. This CAA UK AD may be found in the AD docket at regulations.gov under Docket No. FAA-2024-0044.

(2) For more information about this AD, contact Penelope Trease, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (303) 342-1094; email: penelope.trease@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Britten-Norman Service Bulletin SB 398, Issue 2, dated May 30, 2022.

(ii) [Reserved]

(3) For service information, contact Britten-Norman Aircraft Ltd., Bembridge Airport, Bembridge, Isle of Wight, PO35 5PR United Kingdom; phone: +44 20 3371 4000; email: customer.support@britten-norman.com; website: britten-norman.com/approvals-technical-publications.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on April 15, 2024.

Victor Wicklund,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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