



Civil Aviation Authority

AIRWORTHINESS DIRECTIVE



Number: G-2022-0017

Issue date: 20 September 2022

Note: In this Airworthiness Directive, references to EU regulations are to those regulations as retained and amended in UK domestic law under the European Union (Withdrawal) Act 2018 and are referenced as "UK Regulation (EU) year/number or UK Regulation (EU) No. number/year".

This Airworthiness Directive (AD) is issued by the UK CAA in accordance with UK Regulation (EU) No. 748/2012 Part 21.A.3B, acting as the Authority of the State of Design for the affected product(s), under Article 34 of the Air Navigation Order 2016 (ANO) and UK Regulation (EU) 2018/1139.

In accordance with UK Regulation (EU) No. 1321/2014 Annex I (Part-M), M.A.301 / Annex VB (Part-ML), ML.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 or agreed by the CAA [Part-M, M.A.303 / Part-ML, ML.A.303].

Design Approval Holder's Name:

BRITTEN-NORMAN AIRCRAFT LTD

Type/Model / Designation(s):

BN2 Islander and Trislander aeroplanes

Effective Date:	04 October 2022
TCDS	EASA.A.388 (BN2 Islander) and EASA.A.389 (BN2A Mk III Trislander)
Foreign AD (if applicable):	Not Applicable
Superseding AD:	Not Applicable

ATA 27 – Flight Control – Primary Flight Controls - Inspection

Manufacturer(s):

Britten-Norman Aircraft Ltd

Applicability:

All BN2 series Islander and Trislander aeroplanes

Definitions:

Koiled Kord: 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.

The SB: Service Bulletin 398 (SB 398).

Reason:

A flight control restriction in pitch has been experienced during the pilot's "full and free" flight control checks prior to take-off on a BN2B-26 Islander.

Subsequent investigation by both the operator and by Britten-Norman Aircraft Ltd showed that it was possible for an incorrectly routed Koiled Kord to snag on the rudder pedal adjustment cable and draw it towards the control column tube, where it could then snag on the aileron control stop, thus restricting further movement of the control column tube. It is possible that the resulting increase in load that this can cause on the rudder pedal adjustment cable could be sufficient to unlock the adjustment mechanism, permitting the rudder pedals to move freely forward and aft.

A similar event occurred in 1997 where an incorrectly routed rudder pedal adjustment cable had been caught in a correctly routed Koiled Kord, again resulting in it snagging on the aileron control stop.

Investigation has shown that, in both cases, the control restriction was discovered during the full and free flight control checks prior to take off. As a result of an investigation, Britten-Norman Aircraft Ltd issued SB 398. This SB requires an inspection on BN2 Islander and Trislander aeroplanes, in conjunction with full and free control checks, to ensure that the Koiled Kord is routed correctly behind the instrument panel and that the rudder pedal adjustment cable and Koiled Kord are not interfering with each other.

It is considered that interference of the Koiled Kord with the rudder pedal adjustment cable whilst in flight could potentially result in loss of control of the aircraft. Consequently, the CAA has determined that the inspection detailed in SB 398 Issue 2 or later revision shall be made mandatory. For the reasons described above, this AD requires an inspection to ensure detection and correction of any occurrences of incorrect routing of the Koiled Kord and rudder pedal adjustment cable.

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

Required as indicated, unless accomplished previously.

Note: Accomplishment of SB 398 at Issue 1 does not constitute terminating action for this AD.

Inspection:

- (1) Within 100 flight hours (FH) after the effective date of this AD, perform an inspection for interference between the control column, the rudder pedal adjuster cable, and any wiring (including the Koiled Kord) whilst performing a control column 'Freedom' (Full and Free Movement) check in accordance with the instructions of the SB.
- (2) In the event of corrective actions being performed in accordance with Para (3) and (4) below, perform a final control column "Freedom" (Full and Free Movement) check to ensure that there is no free play, friction, binding, non-linear forces, or any possible mutual interference.

Corrective action(s):

- (3) If evidence of interference is found in accordance with Para (1) above, then the cables must be securely tied clear of the control column for its full range of motion.
- (4) In the event that inspections in accordance with Para (1) above result in evidence of interference, ensure the contacting parts are defect free prior to securing per Para (3).

Reporting:

- (5) If any interference is found during the inspection outlined in Para (1) of this document, complete the operator feedback form in accordance with SB 398 Appendix A and return it to Britten-Norman Aircraft Ltd Customer Support per SB 398 instructions.

Reference Publications:

Service Bulletin 398 Issue 2 dated 30 May 2022

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

Remarks:

1. This AD was posted on 02 August 2022 as PAD 2001 for consultation until 30 August 2022. No comments were received during the consultation period.
2. If requested and appropriately substantiated, CAA can approve Alternative Methods of Compliance for this AD.
3. 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 CAA aviation safety reporting system [Occurrence reporting | Civil Aviation Authority](#). 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.
4. Enquiries regarding this Airworthiness Directive should be referred to: Continued.Airworthiness@caa.co.uk
5. For any questions concerning the technical content of the requirements in this AD, please contact: Britten-Norman Aircraft Ltd at email: customer.support@britten-norman.com