



Civil Aviation Authority

# PROPOSED AIRWORTHINESS DIRECTIVE



**Number: 2001**

Issue date: 02 August 2022

In accordance with the CAA Continuing Airworthiness Procedures, the issuance of an Airworthiness Directive (AD) is proposed which will be 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):**

BRITTEN-NORMAN AIRCRAFT LTD

BN2 Islander and Trislander aeroplanes

Effective Date:	[TBD - standard: 14 days after AD issue date]
TCDS	EASA.A.388 (BN2 Islander) and EASA.A.389 (BN2A Mk III Trislander)
Foreign AD (if applicable):	Not Applicable
Supersedure:	Not Applicable

## ATA 27 – Flight Control – Primary Flight Controls – Inspection

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**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 recently 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 Coiled 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 aircraft, in conjunction with full and free control checks, to ensure that the Coiled Kord is routed correctly behind the instrument panel and that the rudder pedal adjustment cable and Coiled Kord are not interfering with each other.

It is considered that interference of the Coiled 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 Coiled Kord and rudder pedal adjustment cable.

#### **Required Action and Compliance Time:**

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 Coiled 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 identified 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 PAD will be closed for consultation on 30 August 2022.
2. 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 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 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.
3. Enquiries regarding this PAD should be referred to: [Continued.Airworthiness@caa.co.uk](mailto:Continued.Airworthiness@caa.co.uk)
4. For any questions concerning the technical content of the requirements in this PAD, please contact: Britten-Norman Aircraft Ltd at email: [customer.support@britten-norman.com](mailto:customer.support@britten-norman.com)