

**Aircraft type and registration:** Britten Norman Islander BN2A-26 G-BFNV

**No & Type of engines:** 2 Lycoming 0540-E4C5 piston engines

**Year of Manufacture:** 1978

**Date and time (GMT):** 10 July 1987 at 1916 hrs

**Location:** Deans Cross VOR

**Type of flight:** Positioning

**Persons on board:** Crew — 1                      Passengers — None

**Injuries:** Crew — None                      Passengers — N/A

**Nature of damage:** Lightning strike. Upper port of fin ruptured and distorted; VOR aerial carried away

**Commander's Licence:** Commercial Pilot's Licence

**Commander's Age:** 31 years

**Commander's Total Flying Experience:** 3450 hours (of which 400 were on type)

**Information Source:** Aircraft Accident Report Form submitted by the pilot.

The aircraft was in cruising flight between East Midlands Airport and Glasgow when it encountered heavy rain and severe turbulence. A few moments later the pilot experienced a loud bang and a blinding flash, which he interpreted as a lightning strike. Both generators went off line. The pilot was successful in resetting the left generator but, although voltmeter indications were normal, he could not reset the right generator. He heard a loud buzzing noise from both communications radios, both VORs ceased to operate and the ADF spun wildly. The aircraft heading at the time was 340° but the remote reading compass and the standby compass both deflected to 030°. For some time the communications and navigation radios remained unserviceable, except for the distance measuring equipment, which appeared to be unaffected. Eventually the pilot managed to re-establish radio contact on a Scottish ATC frequency and advised the ground station of his predicament.

Earlier in the flight he had monitored the meteorological broadcasts and was aware that the weather was improving at Glasgow. He decided to continue his planned flight and attempt to fly a surveillance radar approach with no compass, and, should this not be successful, divert to Prestwick, where the weather was likely to be better. As the flight continued the No 2 communications receiver came back on line and the pilot managed to reset the right generator. With guidance from the Glasgow approach controller, the pilot flew a successful no compass approach, broke cloud at 700 feet on the centreline of the runway and landed safely.

Inspection of the aircraft revealed that lightning had struck the top of the fin, making a hole in the right-hand side and pulling the skin lining away from the ribs over the upper 43 inches of skin on both sides. The exit hole was 3 inches in diameter and surrounded the remains of the

right side of the VOR aerial, which had been carried away. The fin rear spar had been turned rearwards but the freedom and range of rudder movement had not been affected. Both compasses still had gross errors after landing and residual magnetism was found near the centre windscreen and other localised areas of the airframe.