

No: 11/92

Ref: EW/G92/08/12

Category: 1c

**Aircraft Type and Registration:** Christen Eagle II, G-EGEL

**No & Type of Engines:** 1 Lycoming AEIO-360-A1D piston engine

**Year of Manufacture:** 1990

**Date & Time (UTC):** 10 August 1992 at 1335 hrs

**Location:** Inverness Airport

**Type of Flight:** Private

**Persons on Board:** Crew - 1                      Passengers - None

**Injuries:** Crew - Minor                      Passengers - N/A

**Nature of Damage:** Broken canopy and loss of radio

**Commander's Licence:** Commercial Pilot's Licence with Night and Instructor ratings

**Commander's Age:** 35 years

**Commander's Flying Experience:** 1,100 hours (all on type)  
Last 90 days - 200 hours  
Last 28 days - 60 hours

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

Whilst at 3,500 feet and just past the vertical in an aileron roll, the radio came out of its retaining case and struck the pilot a glancing blow on the chin before departing through the canopy. The blow left the pilot feeling very groggy and disorientated, and when he fully recovered he found himself inverted, 30° nose down and in a 20° bank. The aircraft was recovered at 1,500 feet and an uneventful landing was carried out. Accelerometer readings taken after landing were +4 to -2g.

The radio was mounted vertically and was retained by a screw turning a cam through 90° into a slot in the retaining case; the installation had received a Certificate of Approval on 31 May 1991. The radio had been refitted the previous week, with an additional check of its security carried out by another pilot.

Examination of the retaining case showed that it had been constructed from 1 mm aluminium alloy, reinforced with a 2 mm alloy plate at the back of the area containing the cam slot. Witness marks in the cam slot indicated that the cam had engaged with less than half the thickness of the case (< 0.5 mm), and that before its loss, the radio had only been held by the tip of the angle on the cam.