

# Pierre Robin R1180T Aiglon, G-BLZD, 8 February 1996

**AAIB Bulletin No: 5/96 Ref: EW/G96/02/02 Category: 1.3**

**Aircraft Type and Registration:** Pierre Robin R1180T Aiglon, G-BLZD

**No & Type of Engines:** 1 Lycoming O-360-A3AD piston engine

**Year of Manufacture:** 1979

**Date & Time (UTC):** 8 February 1996 at 1554 hrs

**Location:** 3 miles south-west of Fairoaks Airport, Surrey

**Type of Flight:** Private

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

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

**Nature of Damage:** Engine cowl, fuselage nose and windscreen damaged

**Commander's Licence:** Private Pilot's Licence

**Commander's Age:** 67 years

**Commander's Flying Experience:** 1,189 hours (of which 130 were on type)

Last 90 days - 1 hour

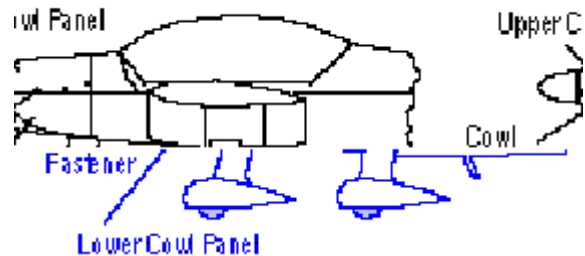
Last 28 days - 1 hour

**Information Source:** Aircraft Accident Report Form submitted by the pilot and inquiries and aircraft examination by AAIB

The pilot had not flown the aircraft for 3 months and planned to conduct a local familiarisation flight. He conducted pre-flight checks, took-off at 1548 hrs and carried out a touch-and-go followed by a climb out to the south-west of Fairoaks. As the aircraft was being levelled at 1,400 ft amsl the left side of the engine upper cowl panel detached and displaced upwards and rearwards. The panel struck the windscreen, making a 30 cm x 23 cm hole. The panel remained attached at the back of the right side, but severely displaced and obscuring forward vision. The pilot informed Fairoaks Radio of the problem and of his intention to return. An emergency was not declared but the AFIS(O) judged from the RT exchanges and the background noise apparent during RT transmissions from GBLZD that the aircraft was in difficulties, sounded the crash alarm and cleared the circuit. The aircraft landed on Runway 06 at 1558 hrs, attended by the Airport Fire Service, without further damage.

The engine cowl consists of an upper and a lower glass reinforced plastic (GRP) panel attached to a flange protruding forward of the engine bay firewall. The upper panel also attaches along each side to

a flange formed along the edges of the lower panel. Attachment is by means of camlock type fasteners, with two provided to secure the upper panel to the firewall flange and three along each side connecting upper and lower panels together. For convenience these are designated from the front L1L4 and R1R4 for left and right sides respectively. Each fastener consists of two



fittings, one attached to the panel and the other riveted to the fixed components. The panel fitting contains a rotatable barrel with a cross bar attached and the fixed fitting contains a keyhole plate and cam plates. To engage the fastener the end of the barrel is passed through the keyhole and the barrel is rotated 90° by means of a screwdriver slot in its end to drive the cross bar up the cam plates into a detent, thus drawing together and securing the components.

The upper cowl panel was not available for inspection but reportedly the panel fittings of the R1 and R2 fasteners had pulled through the upper panel and were found in place and locked in the lower panel fittings. The upper panel had apparently remained attached to the aircraft by the R3 fastener and possibly by the R4 fastener. Both the panel fittings and the fixed fittings of the four left side fasteners that had disengaged remained in place with no signs of damage. It was noted that when the fastener is unlocked the head of the barrel tends to protrude only slightly further from the outer face of the panel fitting than when the fastener is locked and the difference in appearance between the two conditions is small.