No: 9/92 **Ref: EW/G92/06/02** **Category: 1c**

Aircraft Type and Registration:	Gyroflug SCO1B-160, G-FLUG
No & Type of Engines:	1 Lycoming O-320-D1A piston engine
Year of Manufacture:	1989
Date & Time (UTC):	9 June 1992 at 1156 hrs
Location:	Cranfield Airport, Bedfordshire
Type of Flight:	Demonstration flight for Australian military
Persons on Board:	Crew - 1 Passengers - 1
Injuries:	Crew - None Passengers - None
Nature of Damage:	Minor abrasion to nose underside
Commander's Licence:	Airline Transport Pilot's Licence
Commander's Age:	44 years
Commander's Flying Experience:	6,180 hours (of which 51 were on type) Last 90 days - 51 hours Last 28 days - 10 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and additional AAIB inquiries

The aircraft was returning to Cranfield following a demonstration flight and was cleared for a straight-in approach to runway 04. The pilot checked that the landing gear switch was in the down position, and that the green light was illuminated. The initial touchdown was normal, but the aircraft continued to pitch forward until the nose contacted the ground. Differential braking was used to steer the aircraft to the side of the runway, where the engine was shut down and the occupants evacuated normally. Subsequent inspection revealed that the gear switch was in the down position, but that the nose gear was still retracted and the gear circuit breaker had tripped. After it was reset, the gear could be cycled normally, with no fault being found.

This aircraft is of unconventional design in that it has a foreplane and rear mounted engine. The main landing gear is fixed but the nose gear is retractable, operated by an electric motor. An audio warning operates if the gear is not extended at low airspeed and throttle setting, *ie* the aircraft is in the landing configuration.

The flight had included a demonstration stall, during which the "gear retracted" audio warning had operated normally as the airspeed reduced. This indicated that the circuit breaker, which routes power both to the warning horn and the gear indicator lights,as well as the gear motor, had not tripped. The pilot considers that the breaker may have tripped, for reasons which were not established, when the switch was moved to the down position, the gear subsequently not travelling. The warning circuit would therefore have been de-energised, although the pilot believes he may have been misled by sunlight refraction in the raised radial ridges on the light bulb cover.

Since the accident, the aircraft, which is the sole example of the type on the UK register, has been modified so that the gear warning circuit has been provided with a separate circuit breaker. Also the green indicator light, which used to be located below the gear switch, and could be partially obscured by the toggle, has been moved to a position above the switch.