

Auster D4-108, G-ARLG

AAIB Bulletin No: 11/98 **Ref: EW/G98/09/15** **Category: 1.3**

Aircraft Type and Registration: Auster D4-108, G-ARLG

No & Type of Engines: 1 Lycoming O-235-C1 piston engine

Year of Manufacture: 1961

Date & Time (UTC): 16 September 1998 at 1120 hrs

Location: Hook Airstrip, Hampshire

Type of Flight: Private

Persons on Board: Crew - 1 - Passengers - None

Injuries: Crew - None - Passengers - N/A

Nature of Damage: Substantial to rear fuselage

Commander's Licence: Private Pilot's Licence

Commander's Age: 51 years

Commander's Flying Experience: 387 hours (of which 86 were on type)
Last 90 days - 25 hours
Last 28 days - 16 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

The runway in use was a grass farm strip with a take-off distance of just under 2,700 feet and a downslope from West to East. There were both trees and power cables at each end and the normal practice was to take off in an easterly direction because of the less restrictive climb out in that direction. On the day of the accident, the pilot noted the surface wind speed and direction which appeared to be westerly at about 10 kt and calculated his take-off run required to safety speed using the factors published in the CAA General Aviation Safety Sense leaflet 7B. This gave a distance of 1,953 feet, some 700 feet less than the take-off run available.

After start up, the pilot obtained a surface wind of westerly at 10 to 12 kt from Farnborough, some seven miles away, which was in general agreement with his estimate. Take off was then commenced on Runway 08 using full power, one stage of flap and the approved 'short field'

technique. The rule of thumb used by pilots operating the Auster at the strip was that if the aircraft was not airborne on passing the windsock located 710 feet down the strip, then the take off should be abandoned. The aircraft became airborne at about 40 mph just past the windsock but despite the pilot holding the aircraft in ground effect, the airspeed failed to increase towards the take-off safety speed of 50 mph. After a short hesitation, the pilot elected to abandon the take off and landed back on the runway. It became apparent that the aircraft was not slowing down as quickly as the pilot was used to and the end of the strip was approaching rapidly. The pilot applied the brakes, switched off the engine and with about 350 feet of runway remaining, initiated a turn off the runway. The turn was initially gentle but rapidly developed into a vicious ground loop which the pilot was unable to control. During the ground loop the tail wheel assembly and rear fuselage suffered significant damage.

The pilot attributed the cause of the accident to the local surface wind being stronger than that at Farnborough, his failure to abandon the take off at an earlier stage and his decision to turn off the runway which initiated the ground loop.