AAIB Bulletin No: 2/95 Ref: EW/G94/12/01 Category: 1.3

Aircraft Type and Registration: Rockwell Commander 112A, G-TCSL

No & Type of Engines: 1 Lycoming AEIO-360-C1D6 piston engine

Year of Manufacture: 1975

Date & Time (UTC): 5 December 1994 at 1225 hrs

Location: Spanhoe Airfield, Northamptonshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 2

Injuries: Crew - None Passengers - None

Nature of Damage: Aircraft destroyed beyond economical repair

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 49 years

Commander's Flying Experience: 4,700 hours (of which 18 were on type)

Last 90 days - 36 hours Last 28 days - 16 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

Prior to the planned flight to Blackbushe, the pilot made a detailed assessment of the weather. At Spanhoe, the wind, which had backed through 90° in the previous hour, was 180° to 190° at 13 to 15 kt and there was both medium and high level frontal cloud. The wind slightly favoured Runway 27 and the resulting crosswind was well within the aircraft's limitation. Runway 27 also provided fewer obstacles in the climb out path.

The pilot reports that at the start of the take-off run, the wind was 180°/15 kt and the aircraft accelerated to 65 kt, at which speed he raised the nose. The aircraft left the ground normally and began to accelerate as it passed abeam of the hangar/storage shed complex paralleling the runway on the south side. The engine was providing continuous full power but suddenly the airspeed fluctuated dramatically, the aircraft pitched nose up and the right wing dropped. The flying controls were totally ineffective at this time and full down elevator had no effect on the pitch angle. Although unsure of the exact sequence of events the pilot believes that the aircraft then weathercocked some 40° (left) and the right wing struck the ground, as did the fuselage, still in a nose up attitude. During the subsequent

ground slide, about 45° to the left of the runway direction, sufficient directional control enabled the pilot to avoid a large concrete structure but the aircraft slid into a pile of loose concrete which destroyed the propeller and undercarriage.

The pilot considers that a violent and backing wind gust produced a windshear condition which made recovery impossible from the speed and height attained by the aircraft. Wind conditions at a local RAF airfield and at Sibson support this opinion.

There was no fire and, although the front seat lap and diagonal harnesses remained intact, the buckle of the rear seat passenger's harness came unfastened.