

No: 10/90

Ref: EW/G90/07/06

Category: 1c

Aircraft Type and Registration: Rockwell Commander 114, G-BIFD

No & Type of Engines: 1 Lycoming IO-540-T4B5D piston engine

Year of Manufacture: 1977

Date and Time (UTC): 17 July 1990 at 0810 hrs

Location: Wood Farm, Emberton, Buckinghamshire

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - None

Injuries: Crew - None Passengers - N/A

Nature of Damage: Aircraft destroyed

Commander's Licence: Private Pilot's Licence with IMC and Night ratings

Commander's Age: 43 years

Commander's Total Flying Experience: 227 hours (of which 84 were on type)

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot reports that, prior to the flight, the aircraft had been parked for some time in a hangar with a sloping floor, in a position such that the left wing was below the right wing, and that during this time the fuel selector had been left to 'ON'. During his pre-flight checks before an intended flight to Cranfield aerodrome he noticed that the left tank fuel gauge was indicating between 3/4 and full, whilst the right tank fuel gauge indicated between 1/4 and empty. He states that he did not fully realise the possible implications of this fuel imbalance before commencing take-off using the short field technique, as the take off distance available was 350 metres on a level, dry grass surface. Using this technique the manufacturer's operating handbook advises the selection of 20 degrees of flap, obtaining take-off power before brake release, and accelerating to lift off at 66 knots.

After brake release the aircraft accelerated and became airborne, wings level after about half the take off distance available. However immediately on becoming airborne the left wing started to drop and, despite the application of full right rudder and aileron, the pilot was unable to prevent the left wingtip striking the ground. This spun the aircraft around onto its nose, whilst at the same time the stall warning horn had been sounding. As the aircraft came to rest the pilot noticed fuel spurting from the left wing, and this quickly ignited. He was uninjured and vacated the aircraft via the right side door taking the fire extinguisher with him. He discharged the extinguisher onto the flames, but the charge was insufficient to extinguish the fire which subsequently destroyed the aircraft.

In a comprehensive and frank account of the circumstances of this accident, the pilot admits that he felt under some pressure to arrive at Cranfield for the start of the working day, and feels that this may have clouded his judgement in assessing the significance of fuel imbalance.