

Reims Cessna F172N Skyhawk, G-BFTX

AAIB Bulletin No: 9/2004	Ref: EW/G2004/07/09	Category: 1.3
Aircraft Type and Registration:	Reims Cessna F172N Skyhawk, G-BFTX	
No & Type of Engines:	1 Lycoming O-320-H2AD piston engine	
Year of Manufacture:	1978	
Date & Time (UTC):	15 July 2004 at 1650 hrs	
Location:	Clipgate Farm, Denton, Kent	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Extensive damage to the airframe and engine	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	63 years	
Commander's Flying Experience:	237 hours (of which 30 were on type)	
	Last 90 days - 2 hours	
	Last 28 days - 0 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

History of the flight

The pilot and his son were to carry out a short local flight from the private grass airstrip. The weather was good with the surface wind from 200° at between 10 and 15 kt, 24 km visibility, scattered stratus cloud between 2,000 and 3,000 feet, and an outside air temperature of 20°C. The aircraft's mass was 93 kg below the maximum authorised mass for takeoff.

Having completed the pre-flight inspection and fuel check, the aircraft was started and taxied to the threshold of Runway 20 which is 480 metres long and 30 metres wide. The surface was mown grass with open areas of long grass on each side. Power checks were completed satisfactorily and with the carburettor air set to cold and mixture set to fully rich, full throttle was applied and the take-off run commenced. The flaps were set to 10° and the aircraft accelerated normally. The pilot recalled announcing "50 KNOTS" and gently easing back on the control column with the aircraft lifting off at the normal point on the runway, adjacent to the aircraft parking area.

After approximately 30 metres the aircraft sank back onto the runway as if the wind had dropped and the pilot decided to abandon the takeoff in accordance with his pre-arranged procedure. He closed the throttle and applied maximum braking, noting that the windsock appeared to be hanging straight down. The aircraft veered to the right into the longer grass, which the pilot expected to assist with the

deceleration as he had experienced previously. The landing gear wheels appeared to be locked and the aircraft skidded across the surface, slowly veering left under the influence of full left rudder in a deliberate attempt to enter a crop field to the left. The turn could not be tightened and the aircraft struck an earth bank at the southern boundary of the airstrip at about 10 kt, breaking off the nose landing gear and probably stopping the engine. The aircraft then slowly nosed over and inverted leaving the two occupants hanging by their seat harnesses.

The pilot carried out the emergency shut down drills from memory before he and his passenger released themselves, exiting by their normal doors. Persons on the site came to their assistance but both were uninjured.

Analysis

The pilot concluded that the aircraft having lifted off gently, encountered a reduction in the surface wind and lost airspeed which caused the aircraft to sink back onto the runway. With limited distance available, the lack of wheel 'grip' due to the grass surface, and locked wheels, he was not able to turn or stop the aircraft before it struck the hedge covered earth bank.