

ACCIDENT

Aircraft Type and Registration:	X'Air 700(1A), G-CBCM	
No & type of Engines:	1 HKS 700E V3 piston engine	
Year of Manufacture:	2001	
Date & Time (UTC):	4 December 2006 at 1435 hrs	
Location:	Sandtoft Airfield, Yorkshire	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to nose and right main landing gear, nose fairing and propeller	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	33 years	
Commander's Flying Experience:	2,880 hours (of which 5 were on type) Last 90 days - 101 hours Last 28 days - 29 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The aircraft suffered a partial power loss after takeoff. During the subsequent forced landing on soft terrain, the aircraft sustained damage. The pilot attributed the cause of the power loss to carburettor icing.

History of the flight

The flight was planned as part of the annual Permit-to-Fly renewal for the aircraft. The pilot had carried out a detailed inspection that day prior to the flight. At the runway threshold he ran the engine at full power to assure himself of the engine performance and the aircraft then took off and climbed satisfactorily. However, at approximately 250 ft, the engine suffered a partial loss of power leaving what the pilot estimated to be approximately 60% of the

normal maximum power. He selected a field into which he planned to carry out a forced landing and transmitted a PAN call. At around 150 ft the engine lost more power, to around 20-30% of full power, and the pilot realised he would not be able to reach his selected field. He landed in the centre of a soft field and the right wheel detached. The nose landing gear then contacted the soft ground and collapsed, allowing the aircraft to tip onto its nose, breaking the propeller. Both occupants were uninjured.

Discussion

The pilot initially considered that fuel starvation could have been the cause of the power loss and he therefore checked the fuel filter and carburettor float bowl, which

were found to be clean. Once an investigation of the engine has been carried out any further findings will be published in a later bulletin.

The pilot assessed that carburettor icing was a possible cause of the loss of engine power. The HKS 700E V3 is a two-cylinder four-stroke engine, which, not unusually for a microlight engine, does not have any carburettor heat facility.

Metrological aftercasts from the area around the airfield showed the temperature and dew point were 11°C and 6°C respectively, with 71% humidity. Reference to the carburettor icing chart in the CAA General Aviation Safety Sense Leaflet 14A showed that these conditions are conducive to serious icing at any power.