

ACCIDENT

Aircraft Type and Registration:	RAF 2000 GTX-SE, G-ONON	
No & Type of Engines:	1 Subaru EJ22 piston engine	
Year of Manufacture:	2005 (Serial no: PFA G/13-1313)	
Date & Time (UTC):	14 August 2012 at 1530 hrs	
Location:	4 nm north-west of Canterbury, Kent	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to landing gear and propeller	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	59 years	
Commander's Flying Experience:	3,789 hours (of which 2,000+ were on type) Last 90 days - 158 hours Last 28 days - 21 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

The gyroplane suffered a loss of engine power soon after lift off. The pilot arrested the gyroplane's forward speed and made a hard landing at the runway end.

History of the flight

A new electronic throttle position sensor had been fitted to the gyroplane, and subsequent engine ground runs had been satisfactory. Prior to the accident flight, the gyroplane had been parked in direct sun but with the fuel tanks shaded. The airstrip had a grass runway, about 460 m long and orientated 13/31. Over about 130 m at its south-easterly end, the strip had a marked down slope. The weather was fine, with a very light wind from west-south-west and a temperature of 24°C.

After a normal engine start, the engine was allowed to warm to operating temperature before a takeoff was commenced in a south-easterly direction. The pilot thought he felt an engine hesitation, so discontinued the takeoff and landed again before the runway end. All engine indications were checked and found to be normal.

A further takeoff was started, this time in the north-westerly direction. The takeoff was normal initially as were the engine indications, which the pilot checked while still in ground effect immediately after lift off. The pilot therefore decided to continue with the takeoff but, at a height of about 40 to 50 ft, the engine lost power. The pilot checked the throttle had not been

displaced and prepared for an immediate landing; he did not have time to observe any engine indications. The only option available to the pilot was to land on the remaining airstrip ahead. To achieve this, he had to arrest all forward motion before descending vertically, accepting that this would result in damage to the gyroplane. The gyroplane came to a rest at the end of the runway with the rotors still turning and the engine running at idle.

The pilot's investigation showed that no electronic fault codes had been registered and that the fuel pumps operated normally and produced the correct pressure.

Although the engine idled at the specified rpm in ground runs after the accident, it subsequently idled significantly higher, and the recently fitted throttle position sensor was found to have failed. It was not possible to establish if this was as a result of the accident. The temperature of the day was such that the possibility of fuel vapour lock could not be excluded.