

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	RAF 2000 GTX-SE, G-BXKM	
<b>No &amp; Type of Engines:</b>	1 Subaru EJ22 piston engine	
<b>Year of Manufacture:</b>	1998 (Serial no: PFA G/13-1291)	
<b>Date &amp; Time (UTC):</b>	2 April 2021 at 1257 hrs	
<b>Location:</b>	Whitby, Yorkshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 1
<b>Injuries:</b>	Crew - 1 (Minor)	Passengers - 1 (Minor)
<b>Nature of Damage:</b>	Substantial damage to rotor blades, hoses and pipes; bent hub bar, rotor head, control rods, wheel fork and a detached wheel	
<b>Commander's Licence:</b>	Private Pilot's Licence	
<b>Commander's Age:</b>	53 years	
<b>Commander's Flying Experience:</b>	263 hours (of which 147 were on type) Last 90 days - 1 hour Last 28 days - 1 hour	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

The gyroplane, with the pilot and a passenger, took off at close to the maximum takeoff weight from a field predominantly enclosed by a tree plantation. The pilot pulled back to clear the trees, but the aircraft then sank, contacted the treetops, and fell to the ground. The occupants received only minor injuries, but the aircraft suffered substantial damage.

**History of the flight**

The pilot and passenger were departing on a takeoff heading of 250° from a field mostly enclosed by a plantation of trees. The weather conditions were good with a 15 kt wind from 270°. The gyroplane was close to the maximum takeoff weight. After becoming airborne, the pilot continued to build speed whilst just above the ground. He reported he was running out of field when, with approximately 50 mph of speed, he had to pull up to clear the trees. Once above the trees, the aircraft "sank" and the landing gear caught the top of a tree bringing the aircraft to a rapid halt; it fell to the ground vertically with the rotor slowing the descent as it caught on the foliage. The aircraft came to rest on its side amongst the trees. The pilot and passenger received only cuts and bruises and were able to exit the aircraft unaided, but the aircraft sustained significant damage.

The pilot did not report any issues with the aircraft prior to contact with the trees but he advised that, with the takeoff at close to the maximum weight and not quite fully into wind, the aircraft had built up speed slowly. He also considered it possible that the aircraft “sank” after the pull up to clear the trees because it encountered a “wind rotor” from the windward side of the plantation and that he was “flying behind the power curve” at that point.