

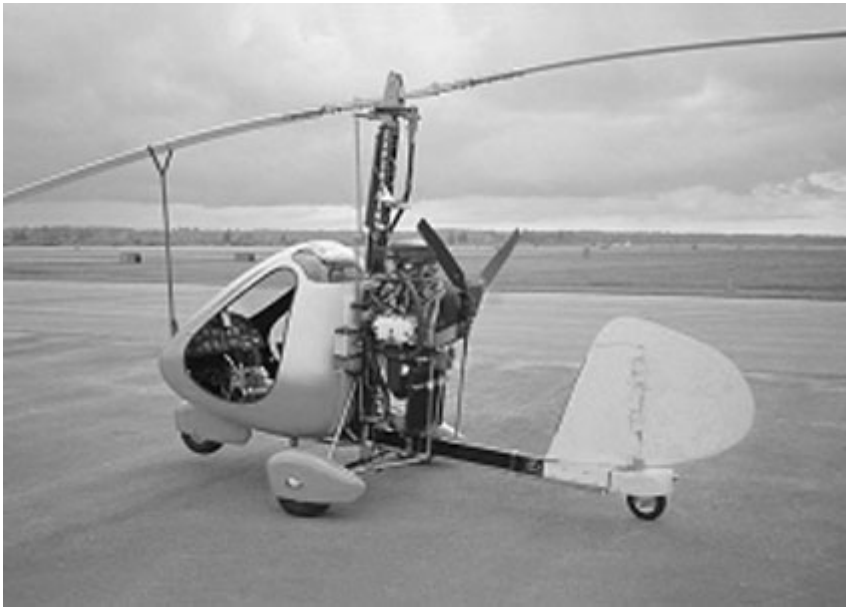
RAF 2000 GTX-SE, G-REBA

AAIB Bulletin No: 6/2004	Ref: EW/G2004/04/19	Category: 2.3
Aircraft Type and Registration:	RAF 2000 GTX-SE, G-REBA	
No & Type of Engines:	1 Subaru EJ22 piston engine	
Year of Manufacture:	2001	
Date & Time (UTC):	24 April 2004 at 1530 hrs	
Location:	Field near Stoke Gabriel, Devon	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	Damage to rotor, propeller, right door, wheel axle and rotor mast	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	67 years	
Commander's Flying Experience:	3,271 hours (of which 141 were on type)	
	Last 90 days - 6 hours	
	Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

History of the flight

The RAF 2000 is a Canadian designed kit-built two-seat gyroplane of conventional layout with a pusher engine configuration.

RAF 2000 GTX-SE



The pilot was planning to depart from a field near his son's home for a local scenic flight. The weather on the day of the accident was good with little or no wind and an air temperature of approximately 20°C. The field offered a maximum takeoff run of approximately 185 metres at an elevation of 100 feet amsl. The pilot taxied the aircraft to the departure end of the field with the pre-rotator engaged and the rotor turning at 150 RPM. After completing his pre-takeoff checks he applied partial power and began the take-off roll to increase the rotor RPM to 200. After covering a distance of approximately 80 metres the rotor RPM had reached 200 and the pilot was then able to apply full power while holding the stick aft. After a short distance the rotor RPM had risen to 270 and the aircraft lifted off at about 45 mph. At this point he considered that he had sufficient distance remaining to clear the six-foot hedge at the far end of the field. The aircraft continued to accelerate to 50 mph but it did not climb at the rate that the pilot was expecting. As he passed over the hedge he felt that a part of the aircraft might have struck it. As a precautionary measure he decided to land in the small field immediately beyond the hedge. The aircraft touched down heavily with the left wheel first and then the aircraft rolled to the right resulting in the rotor striking the ground. The aircraft came to rest on its right side. The pilot turned off the master switch, released his harness and then vacated the aircraft via the left door.

The pilot then walked back to the hedge to determine if he had struck any part of it. He discovered that a small sapling protruding two feet above the hedge had been snapped.

Pilot's assessment of the cause

In his report the pilot very candidly stated that although he had made four or five successful takeoffs from this field in the past, he had not taken into consideration the effect that the lack of wind and higher temperature would have on the aircraft's climb rate.