ACCIDENT

Aircraft Type and Registration:	Beagle Wallis WA-116/F, G-ATTB
No & Type of Engines:	1 Franklin 2A-120-B piston engine
Year of Manufacture:	1962
Date & Time (UTC):	18 May 2006 at 1500 hrs
Location:	Swanton Morley, Norfolk
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Nose nacelle, rudder, fin, aft keel tube, propeller and rotor, plus engine shock-loaded
Commander's Licence:	Private Pilots Licence
Commander's Age:	90 years
Commander's Flying Experience:	4,660 hours (of which 2,394 were on gyroplanes) Last 90 days - 12 hours Last 28 days - 4 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB

Synopsis

After takeoff from a playing field, the gyroplane turned downwind for a "farewell pass" to a small group of spectators. At this point the gyroplane began to sink uncontrollably. The descent continued until the aircraft landed heavily resulting in severe damage.

History of the flight

The gyroplane was flown from its base at Reymerston Hall, near East Dereham, Norfolk to Robertson Barracks, Swanton Morley, Norfolk. It landed without incident on a large playing field for a planned visit.

The pilot reported that the wind was predominately from 250º at 24 kt gusting to 32 kt. He believed that some gusts may have been stronger.

After the visit the pilot took off into wind from the playing field. He initially climbed to 200 ft agl before turning downwind for a "farewell pass." While downwind at cruising power, the pilot sensed a sinking feeling and the gyroplane began to lose height. At this point he was downwind of a wood. He quickly turned left into wind and applied full power in a bid to arrest the rate of descent and regain height but the descent continued, "like a lift", until the gyroplane landed heavily on the playing field, where it hit a set of small football goal

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posts. The gyroplane was badly damaged but the pilot vacated it uninjured.

Discussion

The pilot believes this accident was caused by a localised downdraught as a result of a strong gust of wind blowing over the adjacent wood that continued down to ground level. He thinks the turn into wind kept the gyroplane in the centre of the down draught. He added that he had flown in extreme weather conditions worldwide without incident. He described the effect he experienced as "exceptional."

The wood on the north-western edge of the playing field is "V" shaped with a lake in between the 70 ft high trees. It is orientated approximately north-east/south-west, with an opening at the south-western end. With the wind from the south-west it is likely that a strong gust of wind might have been funnelled up the lake before rising over the trees resulting in a rotor forming and thus a down draught on the leeward side of the trees.

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