RAF 2000 GTX-SE, G-BWTK

AAIB Bulletin No: 10/99	Ref: EW/G99/07/17	Category: 2.3
Aircraft Type and Registration:	RAF 2000 GTX-SE, G-BWTK	
No & Type of Engines:	1 Subaru EJ22 piston engine	
Year of Manufacture:	1997	
Date & Time (UTC):	12 July 1999 at 1700 hrs	
Location:	Lamberhurst Farm, near Faversham, Kent	
Type of Flight:	Private	
Persons on Board:	Crew - 1 - Passengers - 1	
Injuries:	Crew - None - Passengers - None	
Nature of Damage:	Severe damage to rotor, progear	beller, rudder, keel and landing
Commander's Licence:	Private Pilot's Licence with Instructor Ratings	IMC and Assistant Flight
Commander's Age:	46 years	
Commander's Flying Experience:	1,064 hours (of which 568 w	vere on type)
	Last 90 days - 101 hours	
	Last 28 days - 39 hours	
Information Source:	Aircraft Accident Report Fo	rm submitted by the pilot

The RAF 2000 is a two-seat gyroplane with an enclosed cabin. There are doors on each side of the cabin but these can be removed in warm weather to improve ventilation. The aircraft was returning from Lydd where the pilot had made a number of flights over a period of two hours. The 22 nm flight to Lamberhurst Farm was flown at an altitude of 1,500 feet and lasted 50 minutes; in zero wind conditions the flight would have taken only 25 minutes. From these figures the pilot deduced that the wind speed at 1,500 feet was about 26 kt.

Lamberhurst Farm strip is orientated 13/31, 900 metres long and 27 metres wide. The strip undulates with its highest point near the lengthwise mid-point. On arrival at the strip the windsock was indicating a wind speed of about 17 to 22 kt directly across the runway. The crosswind exceeded the aircraft's UK Permit To Fly limit of 7 kt so the pilot decided to land directly into wind across the runway, as he had done many times before in similar conditions. He made a slow approach with power to the highest part of the runway, well away from any obstructions which might affect the wind. At a very low height in the flare he felt the aircraft sinking rapidly and so he applied power to cushion the touchdown. He was not able to apply full power and go-around because there was a tall standing crop on the upwind side of the strip about 10 metres ahead. The aircraft touched down heavily and the rotor blade tips struck the ground behind the aircraft, inducing it to roll over gently by about 60° to the left and come to rest with the left main gear collapsed and the cabin pointing skywards. The cabin was undamaged and both occupants vacated the aircraft through the door apertures without difficulty or assistance. Once out of the aircraft the pilot assessed the wind strength as no more than 10 to 12 kt.

The pilot attributed the accident to windshear following his decision to land in a confined area (across the runway) without having a late go-around 'escape route'.