

## Gazelle HT Mk 2, G-CBFD

<b>AAIB Bulletin No: 5/2004</b>	<b>Ref: EW/G2003/11/25</b>	<b>Category: 2.3</b>
<b>Aircraft Type and Registration:</b>	Gazelle HT Mk 2, G-CBFD	
<b>No &amp; Type of Engines:</b>	1 Turbomeca Astazou IIN2 turboshaft engine	
<b>Year of Manufacture:</b>	1975	
<b>Date &amp; Time (UTC):</b>	18 November 2003 at 1550 hrs	
<b>Location:</b>	Near Doncaster, South Yorkshire	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - None
<b>Injuries:</b>	Crew - None	Passengers - N/A
<b>Nature of Damage:</b>	Damaged beyond economic repair	
<b>Commander's Licence:</b>	Private Pilot's Licences (Helicopters and Aeroplanes)	
<b>Commander's Age:</b>	63 years	
<b>Commander's Flying Experience:</b>	280 hours (of which 7 were on type)	
	Last 90 days - 20 hours	
	Last 28 days - 5 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot and enquiries by the AAIB	

On the morning of the accident, the pilot had flown for about 10 minutes in G-CBFD when the compass system failed. He returned to his private landing site, reported the fault to the helicopter maintenance company and was informed that an avionics engineer would contact him later in the day. In the afternoon, he was contacted by phone and he described the fault and also explained that he wanted to use the helicopter the next morning if at all possible. During the conversation, the engineer commented that the fault may have resulted from a minor electrical problem and that he could guide the pilot through the checking procedure. Accordingly, the pilot maintained contact with the engineer on a mobile phone and went to the helicopter. He sat on the normal pilot's seat and followed the engineer's instructions. As he did so, he was uncomfortable sitting on the connected five-point harness and so unbuckled it and moved it away.

Following the initial checks, the engineer then advised the pilot that he would need to complete the procedure by firstly starting the engine and then lifting G-CBFD into a hover for a 360° turn to check the compass. With an agreement to inform him of the results, the pilot terminated the call and began his 'before start' checks. Engine start was normal and the pilot completed a satisfactory 'full and free'

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control check. Then, with an estimated head wind of about 10 to 15 kt, the pilot lifted into the hover and recalled that he required some forward cyclic control to maintain position. He commenced a slow turn but, when the helicopter was pointing downwind, he was unable to apply sufficient rear cyclic control to maintain level flight. Looking down, the pilot saw that the harness buckle was jammed between the seat and the friction nut at the base of the cyclic control. By now, the helicopter was moving downwind and descending and the pilot appeared to have very little cyclic control in pitch or roll. He used the yaw pedal to bring the nose of G-CBFD back into wind but, as it turned, the tail of the helicopter struck the ground. Following the subsequent heavy landing, the pilot closed the engine down and exited the helicopter.

On G-CBFD, the harness buckle is connected to the front of the seat. A failure to connect it to the other straps resulted in a loose article close to a primary control. The pilot acknowledged the importance of completing all checks, including strapping-in, prior to engine start regardless of whether or not a flight was intended.