

Bolkow BO-105DB, G-AZOR

AAIB Bulletin No: 12/2000 Ref: EW/G2000/09/04 Category: 2.2

Aircraft Type and Registration: Bolkow BO-105DB, G-AZOR

No & Type of Engines: 2 Allison 250-C20B turboshaft engines

Year of Manufacture: 1971

Date & Time (UTC): 5 September 2000 at 1505 hrs

Location: 5 nm north of Brentwood, Essex

Type of Flight: Public Transport

Persons on Board: Crew - 3 - Passengers - None

Injuries: Crew - None - Passengers - N/A

Nature of Damage: ADF aerial and associated fibreglass panel

Commander's Licence: Airline Transport Pilot's Licence

Commander's Age: 53 years

Commander's Flying Experience: 8,006 hours (of which 41 were on type)
Last 90 days - 84 hours
Last 28 days - 36 hours

Information Source: Aircraft Accident Report Form submitted by the pilot and enquiries by the AAIB

The crew of the Helicopter Emergency Medical Service (HEMS) helicopter had been assigned to attend an injured child and, as they approached the location, spotted a marshaller in a large field. The field had a stubble surface, was orientated northeast/southwest and bounded by trees. It was approximately 300 metres long (north/south) and 100 metres wide. The marshaller, from the ambulance service, was located near the western corner of the field and the surface wind was assessed as 240°/12 to 15 kt. The helicopter had no R/T contact with the personnel on the ground and the pilot flew an orbit of the field at 300 feet agl to look for any possible obstructions for his approach and landing. With none seen, he commenced a 'Class 1' clear area approach towards the southwest aiming to be at 100 feet agl at 40 kt. At that point, he began to reduce his airspeed and was suddenly aware of power lines immediately ahead. He tried to stop, but the power lines, consisting of three wires, struck the helicopter just below the cockpit bubble. One wire seemed to break on contact but, subsequently the pilot had to manoeuvre the helicopter to break free; in so doing, a second wire broke and the aircraft ADF aerial detached. The pilot then made a successful normal landing near his intended aiming point. The stubble field was set on fire by one of the broken power lines.

The pilot subsequently confirmed that the sun was not a factor and commented that the power lines were well hidden. He also considered that 'wire cutters' on the helicopter might have resulted in a clean cut to the wires. The provision of 'wire cutters' is not a requirement and would obviously result in a weight penalty with adverse effects on performance and payload. The danger of power lines is a well-known hazard for low-level helicopter operations and the best counter to the danger remains an effective air and/or ground reconnaissance.