

No: 4/86

Ref: EW/C955

Aircraft type and registration: Enstrom F28C G-SMUJ (light single engine helicopter)

Year of Manufacture: 1976

Date and time (GMT): 27 March 1986 at 0938 hrs

Location: 1½ miles south east of Luton airport

Type of flight: Private (business)

Persons on board: Crew — 1 Passengers — None

Injuries: Crew — None Passengers — N/A

Nature of damage: Substantial to skids and underside of fuselage

Commander's Licence: Private Pilot's Licence (Helicopters and Gyroplanes) and PPL (Airplanes)

Commander's Age: 55 years

Commander's Total Flying Experience: 3000 hours (of which 300 were on rotary wing aircraft)

Information Source: AIB Field Investigation.

The aircraft was on a VFR flight from Chesham, Bucks, to Letchworth, Herts. The pilot had contacted Luton Approach and received clearance to cross their zone via the Luton Non-directional beacon at 1,000 feet. At a point approximately 4 miles west of the M1 motorway the aircraft encountered a rain shower. Two minutes after leaving the rain shower, and 2 miles east of the M1 the aircraft suffered severe vibration and oscillated around all three axes.

The pilot suspected a tail rotor malfunction and made a run on landing at 60 mph into a field ahead, but downwind. The landing skids encountered a depression towards the end of the landing run which caused the aircraft to yaw 180° to the right, and the skids to collapse.

Subsequent examination of the aircraft showed that sections of polyurethane tape protecting the leading edges of the rotor blades had become detached, and the resulting imbalance had caused the vibration.

The phenomenon of protective tape separating from rotor blades, especially in rain, and the consequent vibration, is well known in professional circles, but may not have been brought to the attention of some private operators.