

Piper PA-28R-200-2, G-BCOP

AAIB Bulletin No: 12/2000 Ref: EW/G2000/05/18 Category: 1.3

Aircraft Type and Registration: Piper PA-28R-200-2, G-BCOP

No & Type of Engines: 1 Lycoming IO-360-C1C piston engine

Year of Manufacture: 1974

Date & Time (UTC): 26 May 2000 at 1833 hrs

Location: Lower Road, Minster, Isle of Sheppy, Kent

Type of Flight: Private

Persons on Board: Crew - 1 - Passengers - None

Injuries: Crew - None - Passengers - N/A

Nature of Damage: Both wings and tail unit damaged. Two of the three landing gear broken off

Commander's Licence: Private Pilot's Licence

Commander's Age: 53 years

Commander's Flying Experience: 1,694 hours (of which 1,200 were on type)
Last 90 days - 6 hours
Last 28 days - 1 hour

Information Source: Aircraft Accident Report Form submitted by the pilot

The pilot was on a VFR flight from Halfpenny Green, Shopshire to London Manston Airport, Kent. Prior to departure the weather was checked and prior permission for the flight was obtained from Manston. Whilst the forecast en route was good the weather was expected to deteriorated in the Manston area.

At 1630 hrs the aircraft departed from Halfpenny Green with a cloud base of 4,000 feet, good visibility permitting surface contact. At Brookmans Park the weather began to deteriorate with increased shower activity. The pilot estimated that the cloud base had reduced to broken cloud at 1,500 feet with scattered cloud at 300 to 400 feet. At 1748 hrs the pilot established two way communication with Manston giving her position as Detling at 2,400 feet and estimate for Manston 'on the hour'. Shortly afterwards the pilot was passed the 1750 hrs Manston weather which was: 'Surface wind 140°/6 kt, visibility 3,000 meters in rain, cloud broken at 800 feet, broken at 3,000 feet, temperature +12°C, dewpoint +12°C QNH 1002 mb, QFE 995 mb Runway 10 wet'.

In the light of this weather report the pilot decided to abandon the flight to Manston and contacted Thames Radar with the intention of diverting to Southend. Whilst awaiting further instructions the

pilot took up a heading for Detling VOR, as instructed, and noticed the off flags were showing on both VOR receivers. She was unable to contact Thames Radar to check if there was a fault either with the facility or the aircraft equipment. It then became apparent that the aircraft had suffered a total electrical failure.

Whilst initially the pilot considered climbing to a safe altitude and taking up a heading for Halfpenny Green and the better weather conditions to the west, she considered that there was a high risk of that she might infringe controlled airspace in the busy environment en route. Still having surface visual contact and full control of the aircraft the pilot decided to carry out a field landing. The first two fields considered were rejected due to sheep in one and cables spanning the other. The third choice was a large field well away from the road with what appeared to be green stubble, which she considered could have been a potato crop, identification of which was made more difficult by the deteriorating weather conditions.

The aircraft was positioned for a landing and, with no indication that the landing gear was correctly lowered due to the electrical problem, the aircraft was lowered to the ground in the landing attitude. The aircraft was suddenly and violently spun through 180° and became enveloped in what turned out to be rape crop. After the aircraft came to rest, the pilot turned off the fuel and exited through the normal door. The emergency services arrived on the scene approximately 20 minutes later.

The pilot concluded that the main cause of the accident was the total electrical failure in deteriorating weather conditions with no means of communicating with ATC or flying safely to an area of better weather. Her only realistic option was to carry out a field landing. The standing crop was not identified as such due to the poor visibility. No cause for the total electrical failure has been identified.

A previous instance of in flight electrical failure had been reported by the owner and investigated by a maintenance organisation on 22 May 2000. With no apparent fault having been found, the owner was advised to monitor the system 'over the next few flights'.