ACCIDENT

Aircraft Type and Registration: Piper PA-32R-300 Cherokee Lance, G-BTCA

No & Type of Engines: 1 Lycoming IO-540-K1G5D piston engine

Year of Manufacture: 1977

Date & Time (UTC): 23 August 2009 at 1330 hrs

Location: Alderney Airport, Channel Islands

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 3

Injuries: Crew - 1 (Minor) Passengers - 3 (Minor)

Nature of Damage: Impact damage and severe fire damage to left wing

Commander's Licence: Private Pilot's Licence

Commander's Age: 59 years

Commander's Flying Experience: 875 hours (of which 640 were on type)

Last 90 days - 12 hours Last 28 days - 6 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

and additional AAIB inquiries

Synopsis

On approach to Alderney, the pilot temporarily lost sight of the airfield due to a bank of sea fog rolling in from the south. Having passed through the runway centreline, the angle of bank was seen by witnesses to increase to the left, following which the aircraft descended and struck the ground, just before and slightly to the left of the runway threshold. The pilot attributed the accident to the aircraft having been caught by a sudden gust of wind, or maybe a thermal. Warnings are published in the UK AIP and various flight guides to exercise caution due to turbulence caused by nearby cliffs.

History of the flight

The aircraft took off from Jersey with the pilot and three passengers on board, bound for Alderney. It turned onto a northerly heading and levelled out at around 950 ft on the QNH, having been instructed by Jersey Tower to remain below 1,000 ft. The aircraft was then handed over to Guernsey ATC. The presence of some stratus cloud obscured Alderney until the aircraft was at a range of approximately 5 nm; the pilot reported visual contact with the island and was passed to Alderney Tower, who requested that the aircraft join on a left base for Runway 26. The pilot slowed the aircraft to 129 kt and lowered the landing gear. As the aircraft passed over the coast, he increased the engine power to 20 inches of manifold pressure, before reducing the airspeed to 120 kt

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and lowering two stages of flap. He started a descending left turn and applied a degree of back pressure to the controls in order to reduce the rate of descent. However, at this point the right wing suddenly lifted and the nose raised to a higher angle than the pilot expected. The stall warning horn then sounded and he noted that the airspeed indicator was showing 60 kt. He lowered the nose and applied power; this stopped the warning horn but the controls still felt "sloppy". The stall warning then sounded once more and the pilot responded by pushing the nose further down and applying full power. However, the aircraft continued to turn to the left. The pilot regained partial control and pulled the nose up just before the aircraft struck the ground, short and slightly to the left of the runway threshold.

After the aircraft had come to rest, one of the rear seat passengers called out that there was a fire on the left side of the aircraft. The pilot looked out and saw two small fires, one close to the left wing root and the other immediately outboard of the outer tank. The passengers in the rear of the aircraft exited via the rear door, which was on the left side. The front seat passenger left the aircraft via the forward door on the right hand side. One of the rear seat occupants, who had sustained a knee injury, had to be assisted from the aircraft by the other passengers. The pilot turned off the fuel and the electrical services and, after checking that everyone else had left, collected the fire extinguisher and evacuated the aircraft. He noted that the landing gear had collapsed and that the left wing had broken into two parts. He extinguished the fire but it reignited after the extinguisher was exhausted. The flames spread and the aircraft was largely burnt out before the arrival of the fire and rescue services.

Other information

The weather on the day of the accident, according to the airfield log, indicated wind conditions of 190° at 6 kt. In addition there were FEW clouds reported at 500 ft. However, as the aircraft approached the island, the cloud conditions were revised to SCATTERED at 200 ft, due to a bank of sea fog rolling in from the south which temporarily obscured the pilot's view of the airfield. Witnesses on the airfield noted that the aircraft passed through the runway centreline as it turned onto final approach and the bank angle was seen to increase, as the pilot apparently tried to regain the correct track.

The UK Aeronautical Information Publication (AIP) chart for the airfield, which is 290 ft amsl, carries a warning to exercise caution due to turbulence caused by nearby cliffs. This warning was also included on the airfield guide used by the pilot who had flown on many occasions to Alderney over a period of around fifteen years.

Discussion

In his narrative, the pilot attributed the accident to the aircraft having been caught by a sudden gust of wind, or maybe a thermal. However, when the aircraft was on base leg, the presence of the scattered low cloud caused a temporary loss of visual contact with the runway, possibly causing the aircraft to pass through the extended centreline. It is additionally possible that the pilot's response was to tighten the turn, thus raising the stalling speed to the point where a gust may have precipitated a stalled condition.

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