

ACCIDENT

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| Aircraft Type and Registration: | Piper PA-28-180 Cherokee, G-AVZR | |
| No & Type of Engines: | 1 Lycoming O-360-A4M piston engine | |
| Year of Manufacture: | 1967 (Serial no: 28-4114) | |
| Date & Time (UTC): | 18 July 2015 at 1545 hrs | |
| Location: | North Coates Airfield, Lincolnshire | |
| Type of Flight: | Training | |
| Persons on Board: | Crew - 2 | Passengers - 2 |
| Injuries: | Crew - None | Passengers - 1 (Minor) |
| Nature of Damage: | Extensive (left wing detached) | |
| Commander's Licence: | Commercial Pilot's Licence | |
| Commander's Age: | 57 years | |
| Commander's Flying Experience: | 1,199 hours (of which 314 were on type) Last 90 days - 23 hours Last 28 days - 10 hours | |
| Information Source: | Aircraft Accident Report Form submitted by the pilot | |

Synopsis

During an instructional flight the aircraft departed the left side of a grass runway on takeoff and struck a shrub, causing the left wing to detach. The aircraft came to rest in a dyke, inverted and partially underwater.

History of the flight

The instructor reported that the pilot was undergoing training to add a Simple-Single Engine Aircraft (SSEA) Class rating to his existing National Private Pilot's Licence (Microlights). The instructor had previously demonstrated the techniques for soft/short field takeoffs and the student had practised these on the concrete runway at Sturgate.

On the day of the accident the aircraft had flown from Sturgate to North Coates. Departure from the latter involved training for a soft field takeoff from the grass landing strip. The instructor, the student and two other occupants were on board the aircraft. A weight and balance calculation supplied by the instructor indicated that the aircraft was operating at a weight approximately 150 lb below the maximum all up weight (AUW), with a CG very close to the forward limit.

The aircraft was started and configured by the student using the checklist, under the instructor's supervision. Following the power checks, which were normal, the decision was taken to practise a soft field departure and this was briefed accordingly.

The aircraft was then turned onto the runway and full power was applied. The engine performance appeared normal and the aircraft accelerated down the centre of the runway. After a 150 to 200 m ground run the student over-rotated the aircraft slightly and forward view was partly obscured. The instructor told the student to ease the control column forward to reset the correct takeoff attitude. It then became clear that the aircraft had turned left by about 15° and was converging on the left side of the runway. The student was instructed to steer to the right.

The instructor stated that the ASI was reading 60 mph and he did not take control because he expected the aircraft to become airborne before reaching the side of the runway. Although it did become airborne and the student levelled off to allow the aircraft to accelerate, it then descended slightly and the left wheel came into contact with tall grass alongside the runway. This caused the aircraft to deviate to the left and decelerate, with the result that the left wingtip struck a shrub and the wing detached. The aircraft came to rest inverted in an irrigation dyke, with the windscreen underwater and tall grass and reeds obstructing the view through the side windows. The instructor initially had difficulty reaching the fuel pump switch, the key for the magnetos and the master switch, but was eventually able to select all to the off position.

Escape was facilitated by the arrival of the North Coates rescue team, who helped remove the window in the main door before assisting the occupants out of the aircraft.

In hindsight, the instructor realised that he should have taken control, but he believed the aircraft would easily become airborne and the student would succeed in steering right before reaching the edge of the runway.