

## ACCIDENT

<b>Aircraft Type and Registration:</b>	Piper PA-28-181 Cherokee Archer II, G-OODW
<b>No &amp; Type of Engines:</b>	1 Lycoming O-360-A4M piston engine
<b>Year of Manufacture:</b>	1984 (Serial no: 28-8490031)
<b>Date &amp; Time (UTC):</b>	10 October 2013 at 1400 hrs
<b>Location:</b>	Turweston Aerodrome, Northamptonshire
<b>Type of Flight:</b>	Private
<b>Persons on Board:</b>	Crew - 1                  Passengers - None
<b>Injuries:</b>	Crew - None              Passengers - N/A
<b>Nature of Damage:</b>	Damage to the left wing
<b>Commander's Licence:</b>	Private Pilot's Licence
<b>Commander's Age:</b>	66 years
<b>Commander's Flying Experience:</b>	400 hours (of which 50 were on type) Last 90 days - 10 hours Last 28 days - 4 hours
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot

## Synopsis

The pilot had backtracked Runway 27 and turned off at Holding Point C to perform an engine power check, before departing for a flight to Fair Oaks. During a right turn to position the aircraft into wind, the leading edge of the left wing struck a metal upright supporting a sign, causing damage to the left wing. The extent of the damage was only discovered after the pilot had landed at Fair Oaks.

## History of the flight

The pilot had flown from Fair Oaks Airfield to Turweston Aerodrome. After landing, he was met by his friends and left the airfield. While the aircraft was parked, a local flying instructor went to look at it to see what navigation equipment was fitted. He approached the aircraft from the front left quarter and did not recall seeing any damage to the left wing.

When the pilot returned he carried out a pre-flight inspection, which included checking the fuel tank filler caps. In the case of the left wing, this was done from the leading edge and the pilot did not observe any damage.

He performed his normal checks and taxied for a departure from Runway 27. The weather was good, with dry conditions, no precipitation, good visibility and a gusty wind from the northwest. The pilot backtracked Runway 27 and exited at Holding Point C onto the taxiway, which has a yellow centreline marking. Some 30 m from the holding point and 9.3 m east of the taxiway centreline is a red '*BEWARE – Very low flying aircraft*' warning sign located on the side of the taxiway. This is intended to be visible to vehicle drivers using the adjacent access road (see Figure 1).



**Figure 1**

Holding Point C, the taxiway and the warning sign

The pilot manoeuvred the aircraft to the left (east) of the centreline to ensure enough room to turn right back to the holding point, to carry out a power check. During the turn, the pilot felt a “small bump” as the left wing contacted the warning sign and passed over it. From his position in the cockpit, he could only see a small dent in the left wing but did not connect it with the bump. Having performed the power check, the pilot took off and returned to Fairoaks.

After landing at Fairoaks, the pilot discovered that the leading edge of the left wing was dented and torn.

### Discussion

The pilot had not been aware of the full extent of the damage, which was not visible from the cockpit, before departing from Turweston. He concluded that he had not seen the warning sign due to its end on aspect when he taxied off the runway and possibly because he was looking to the right, into the turn. On reflection, having felt a bump and seen a dent

he considered it would have been beneficial to have shut down the aircraft and checked it before departing.

The warning sign was not subject to a taxiway sign requirement but was erected to warn vehicle drivers on the adjacent access road that they may hear or see low flying aircraft approaching or departing from the runway. Civil Aviation Publication (CAP) 168, *Licensing of Aerodromes*, sets out the requirements for taxiway signs. Had the sign been a requirement, it would have had to be 12.5 m from the taxiway centreline, as opposed to 9.3 m, as measured, and no higher than 0.36 m. The operator has carried out a review of the location of the warning sign and has elected to move it further away from the taxiway.