ACCIDENT

Aircraft Type and Registration:	Piper PA-28R-180 Cherokee Arrow, G-OKAG
No & Type of Engines:	1 Lycoming IO-360-B1E piston engine
Year of Manufacture:	1967 (Serial no: 28R-30075)
Date & Time (UTC):	29 July 2013 at 1550 hrs
Location:	Field near Hertford, Hertfordshire
Type of Flight:	Private
Persons on Board:	Crew - 1 Passengers - None
Injuries:	Crew - None Passengers - N/A
Nature of Damage:	Damage to nosewheel, main landing gear, inboard section of left wing and belly strobe light
Commander's Licence:	Commercial Pilot's Licence
Commander's Age:	40 years
Commander's Flying Experience:	388 hours (of which 255 were on type) Last 90 days - 16 hours Last 28 days - 9 hours
Information Source:	Aircraft Accident Report Form submitted by the pilot

Synposis

The pilot planned a flight from Stapleford, Essex, to Leicester and a return via Panshanger, Hertfordshire. Although he had checked the forecast, he was unable to land at Leicester due to bad weather. After two go-arounds at Panshanger due to strong turbulence, the pilot decided to return to Stapleford but, on climbout the engine stopped and he performed a forced landing in a field. The aircraft overran through a hedge and across a shallow ravine before coming to a halt. The pilot suspects that he may have made an incorrect fuel valve selection due to preoccupation with handling the aircraft in the challenging weather conditions.

History of the flight

The pilot was intending to fly from Stapleford to Leicester where he planned a brief technical stop before returning to Stapleford via Panshanger. The aircraft was fuelled with 20 US gallons and the usual planning and pre-flight checks were carried out. Checking the weather forecast, he saw that there was a 15-20 kt south-westerly airflow with 10 k visibility but with isolated showers and cumulonimbus clouds. The METARs were reporting uniformly VFR conditions throughout central/south-eastern England and the pilot was content that he would be able to avoid any storm cells visually.

As he approached Leicester with about 20 nm to run at 1510 hrs, he heard Leicester ATC report bad weather to

another aircraft, which elected to hold a few miles out. The pilot was visual with the cell and he considered that his best option was to immediately divert to Panshanger rather than hold for an indeterminate time at an airfield which was due to close at 1600 hrs. Having considered and rejected Sywell as an alternative, the fact that he had seen that conditions were good at Panshanger on the outbound leg, and that the airfield would be open until 1800 hrs, persuaded him that this was the correct course of action.

At 1545 hrs, the pilot had positioned the aircraft on right base leg for Runway 29 at Panshanger and carried out the pre-landing checks which included changing fuel tanks and selecting the electric fuel pump ON. When established on finals, he sensed unusual power or propeller fluctuations. Checking fuel on, pump ON, mixture rich and pitch fine, it now appeared to him that the fluctuations were related to varying crosswind effects and turbulence. He saw that the windsock was showing about 240º/15 kt but the gusts were increasing and the approach was unstable, so he made the decision to go around, noting dark clouds to his left, encroaching on the airfield. During the go-around, which involved an early right turn for noise abatement reasons, he suddenly found himself working very hard to maintain his target airspeed and angle of bank whilst retracting the landing gear and flaps. The airspeed indicator (ASI) was showing large fluctuations and the varying wind strength was making directional control difficult such that his entire concentration was required to maintain control.

On the late downwind leg, the power symptoms appeared to subside a little but the aircraft was still being severely buffeted by turbulence so the pilot decided to continue on to Stapleford, which was about 10 minutes flying time away in good weather conditions. Climbing to a safe altitude whilst departing Panshanger Air Traffic Zone (ATZ), the pilot was still having difficulty in keeping the aircraft under control and felt that there was a recurrence of the power/pitch fluctuations which he had experienced on the approach to Panshanger. He also reports that he was having difficulty reading the instruments.

The pilot then sensed a further reduction in power and feared a complete loss was imminent. He started to search for a suitable forced landing ground and, after about 15 seconds, the engine stopped completely. The pilot quickly transitioned from a climbing attitude to a trimmed glide as he descended towards the field he had selected earlier whilst transmitting a MAYDAY call to Panshanger radio. He extended the landing gear but not the flaps since some power lines became apparent as he drew closer and he did not want to touch down short. After touchdown, the pilot realised that he would be unable to prevent the aircraft from running into a hedge at the far end of the field. He briefly thought about trying to turn the aircraft to avoid the hedge but, being aware of reports of accidents where this had been attempted, he decided that it was safer to strike it at right angles.

The aircraft passed easily through the hedge, down a shallow ravine and, as it rolled up the other side, the nose landing gear collapsed. It came to rest at right angles to its direction of travel and the pilot shut the aircraft down and vacated it. A few minutes later the police and the farm owner arrived.

The pilot commented that controlling the aircraft in challenging weather conditions had been absorbing most of his concentration and, when the engine stopped, he was unable to carry out any diagnostics as to a possible reason. He does not rule out the possibility that he may have made an incorrect selection of the fuel selector valve.