ACCIDENT

Aircraft Type and Registration: Piper PA-28-181, G-BORS

No & Type of Engines: 1 Lycoming O-360-A4M

Category: 1.3

Year of Manufacture: 1980

Date & Time (UTC): 23 July 2005 at 1239 hrs

Location: 6 miles west of Dalmally, near Oban, Scotland

Type of Flight: Private

Persons on Board: Crew - 1 Passengers - 1

Injuries: Crew - None Passengers - None

Nature of Damage: Damage to propeller, nose wheel, left main landing gear

detached, creasing to wingtip and skin buckling in tail

cone area

Commander's Licence: Private Pilot's Licence

Commander's Age: 52 years

Commander's Flying Experience: 260 hours (of which 140 were on type)

Last 90 days - 5 hours Last 28 days - 5 hours

Information Source: Aircraft Accident Report Form submitted by the pilot

and further telephone enquiries by the AAIB

The flight was planned from Fowlmere in Cambridgeshire to Oban (North Connel) in Scotland, the exact routing being dependant on the weather. It was a journey the pilot had conducted on a previous occasion and he expected to carry out the trip non-stop in approximately $3\frac{1}{2}$ to 4 hours, with the option to stop en-route should he or his passenger need a break.

He took off from Fowlmere at 0755 UTC with both fuel tanks full giving an endurance of 5½ hours with normal cruise procedures. The fuel was carried in two 94 litre wing tanks, with tank selection ('left', 'right' or 'off') being made via a selector located on the left hand side

panel forward of the pilot's seat. He followed his normal routine which was to depart with the left fuel tank selected and after approximately one hour he changed to the right tank. His route took him along the East Coast past Newcastle and Edinburgh. He decided to land at Cumbernauld for a break and landed there at 1110 hrs, having flown the final 1½ hours with fuel selected to the left fuel tank.

Prior to departure from Cumbernauld the pilot visually checked both fuel tanks and noted that the right tank had approximately half its contents remaining, with the left containing a lower quantity. His flight to Oban was estimated to be 45 minutes duration and so he concluded that the fuel remaining following the 3½ hour fuel burn on the first leg of the trip was sufficient to complete the flight. He mentally noted that he would carry out the flight using the contents of the right fuel tank.

In order to depart Cumbernauld the aircraft was required to backtrack along the runway, following another aircraft, prior to lining up for takeoff. The pilot was expecting a departure clearance after the aircraft ahead had taken off; however he was asked if he would depart first. The pilot lined the aircraft up for departure and power checks were completed on the runway; the engine power was then increased for takeoff. The pilot subsequently commented that he may have missed an intended fuel selection at this stage as he felt the need to expedite his departure to avoid delaying the other aircraft.

The aircraft took off at 1205 hrs and departed to the west. The pilot carried out his en-route checks shortly after and later commented that this was another opportunity when the left tank may have been inadvertently selected. His route to Oban was via Loch Lomond; low cloud on the tops of mountains up to 2400 ft amsl to the west of the Loch forced him to route to the south. However, on passing south of the Prohibited Area P611 the weather cleared allowing him once again to route direct to Oban. He took the opportunity to fly VFR on top of clouds at 5,500 ft for a short while before descending over Loch Fyne to 3,500 ft.

Shortly after having levelled at 3,500 ft the aircraft experienced a loss of power; the pilot reported that the engine surged, coughed and then stopped. Carburettor heat had been selected during the earlier descent and he

felt sure that carburettor icing was not a contributory factor to the loss of power. His position was midway between Loch Fyne and Loch Awe where the height of the ground is up to 1932 ft amsl. Due to the mountainous nature of the terrain he immediately set up a glide towards the shores of Loch Awe. He attempted to restart the engine however this was unsuccessful. He commented that the fuel tank selection was changed during the restart attempt. At around 1,200 ft he made a MAYDAY call to Scottish Information. The pilot was anxious to extend the aircraft glide to Loch Awe and, given the unforgiving nature of the terrain, ditch close to the shore. While coasting out over the Loch he saw a slight break in the tree line where there was a small clearing. He carried out a tight 180° turn and touched down firmly in a very small grass area and the nose and left main landing gear collapsed. After a short ground run the aircraft approached a rising bank where it was brought to a halt. Both occupants were uninjured and exited the aircraft unaided and received immediate assistance from people who had witnessed the landing and alerted the rescue services.

The Chief Flying Instructor of the club visited the site in order to recover the aircraft; he noted that the left fuel tank was empty and approximately 30 litres of fuel were drained from the right fuel tank. This fuel state was consistent with having flown the second leg selected to the left fuel tank. The fuel selector was found selected to the right fuel tank. The accident occurred at 1239 UTC, having completed 34 minutes flying time since departing Cumbernauld. From this flight and the previous leg, the aircraft would have flown 2¾ hours using the left fuel tank contents, half the calculated endurance.