

**ACCIDENT**

<b>Aircraft Type and Registration:</b>	Porterfield CP50 Collegiate, G-AFZL	
<b>No &amp; Type of Engines:</b>	1 Continental Motors Corp A50-5(Modified) piston engine	
<b>Year of Manufacture:</b>	1939 (Serial no: 581)	
<b>Date &amp; Time (UTC):</b>	30 June 2013 at 1000 hrs	
<b>Location:</b>	White Waltham Airfield, Berkshire	
<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>	Propeller destroyed, damage to engine cowlings, cockpit transparencies, wings, fuselage and tail fin	
<b>Commander's Licence:</b>	National Private Pilot's Licence	
<b>Commander's Age:</b>	60 years	
<b>Commander's Flying Experience:</b>	1,383 hours (of which 1,037 were on type) Last 90 days - 11 hours Last 28 days - 1 hour	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

**Synopsis**

The aircraft appeared to be caught by a gust of wind while manoeuvring downwind at the holding point prior to takeoff. The aircraft pitched nose-down and inverted. The pilot, who was uninjured, vacated the aircraft without difficulty.

**Description of the event**

After refuelling at the fuel pumps, the pilot taxied the aircraft to Runway 25 in preparation for a solo flight. The weather was generally fine, with a surface wind from 240° at 10 to 15 kt. The pilot, who had flown the aircraft (a tailwheel type) for thirty years in varying conditions, had not experienced any difficulty in taxiing the aircraft both crosswind and downwind. Being very

familiar with the aircraft's behaviour taxiing in adverse wind conditions, he considered the wind at the time to be fairly benign.

After carrying out his pre-takeoff power checks into wind, the pilot observed the windsock and saw no change in strength or direction. In accordance with local procedures, he then turned the aircraft left across the wind to face downwind in order to observe the final approach path before lining up on the runway.

With the approach clear, and another aircraft approaching from his right, the pilot applied some differential braking to turn left towards the runway, while applying moderate

power. As the aircraft was directly downwind, a gust of wind appeared to catch and lift the tail. The aircraft continued to pitch down and, in what seemed quite a gentle and slow movement, inverted and came to rest facing directly into wind. The engine had stopped as the propeller struck the ground, and the aircraft settled approximately wings level.

The pilot, who was uninjured, released himself from his harness and vacated the aircraft immediately and without difficulty, mindful of the full fuel tank and potential for significant spillage. The airfield emergency services arrived on scene soon afterwards. At this stage the pilot thought the wind may have been a little gustier than it had been earlier when the aircraft was at the fuel pumps.

The pilot considered the event to be a classic light taildragger/tailwind accident. With no passenger and a full fuel tank, the aircraft's centre of gravity was at a relatively forward position. He thought this may have exacerbated the situation, which was probably initiated by the combination of differential braking and a gust of wind. Although the pilot could not be sure, he thought he had been holding some or full forward elevator as the aircraft turned downwind, as he recalled instinctively pulling back on the control column as the aircraft pitched forward through the level position. While this could have aggravated the situation, the pilot felt that a full inversion was inevitable at that point.