

## ACCIDENT

<b>Aircraft Type and Registration:</b>	Beech 58 Baron, G-BYDY	
<b>No &amp; Type of Engines:</b>	2 Continental Motors Corp IO-550-C piston engines	
<b>Year of Manufacture:</b>	1998 (Serial no: TH-1852)	
<b>Date &amp; Time (UTC):</b>	8 September 2018 at 1130 hrs	
<b>Location:</b>	Haydock Park Airfield, Newton-Le-Willows	
<b>Type of Flight:</b>	Private	
<b>Persons on Board:</b>	Crew - 1	Passengers - 4
<b>Injuries:</b>	Crew - None	Passengers - None
<b>Nature of Damage:</b>	Damage to left flap and left side of fuselage	
<b>Commander's Licence:</b>	Commercial Pilot's Licence	
<b>Commander's Age:</b>	63 years	
<b>Commander's Flying Experience:</b>	4,950 hours (of which 2,500 were on type) Last 90 days - 80 hours Last 28 days - 25 hours	
<b>Information Source:</b>	Aircraft Accident Report Form submitted by the pilot	

## Synopsis

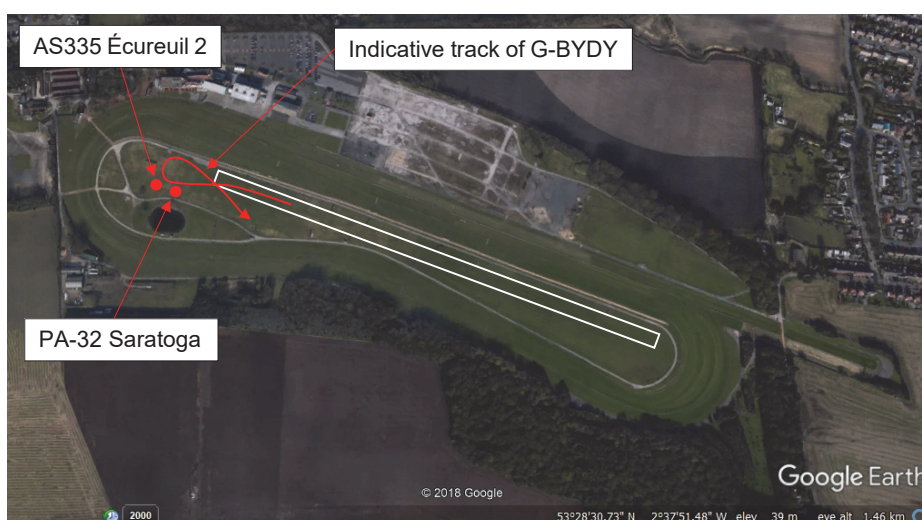
Due to a wet grass runway, the pilot was unable to stop the aircraft after landing and deliberately 'ground-looped' the aircraft to prevent overrunning. During this manoeuvre the aircraft collided with a parked aircraft. The damage sustained by the landing aircraft was minor, however the parked aircraft was extensively damaged. No persons were injured.

## History of the flight

Prior to departure from Thruxton aerodrome, the pilot spoke to the Clerk of the Course at Haydock Park race course (Newton-Le-Willows Airfield) to understand the condition of the runway. The Clerk stated that the Head Groundsman had walked the course several times that morning and, in his opinion, the ground was wet but "firm enough for aircraft to land". A Piper PA-32 Saratoga and an AS355 Écureuil 2 Helicopter had both landed that day with no incident and were parked as instructed, at the far western end of the airfield.

On arriving at Haydock Park, the pilot overflew the airfield to confirm visually the wind conditions from the windsock. He noted that it was raining but felt confident there was sufficient runway, providing the touchdown was at the threshold.

The wind was 230° at 8 kt as the aircraft touched down on the threshold of the westerly runway (290°). The pilot allowed the aircraft to roll initially and then gently applied the brakes, but the wet conditions resulted in the aircraft maintaining speed over the last third of the runway. The pilot realised there was insufficient runway remaining to come to a stop and decided to deliberately ‘ground-loop’ the aircraft, as a go-around was not possible at this stage of the landing roll. The intended manoeuvre was to steer the aircraft to the left and then apply left engine power and right rudder to swing the aircraft. Right engine power would then be applied to straighten the aircraft and finally braking to bring the aircraft to a stop. But whilst steering to the left, the aft fuselage and left flap contacted the right wing of the parked PA-32 Saratoga. The aircraft continued with the manoeuvre and came to rest as intended. All the passengers and the pilot exited the aircraft unaided and without injury. There were no occupants in the parked aircraft.



**Figure 1**

Haydock Park – Indicative track of ground loop

### Aircraft examination

The damage to the Beech Baron was limited to the aft fuselage skin panel and several fuselage frames. The outer end of the flap on the left wing was also damaged but could still be retracted (Figure 2).



**Figure 2**

Damage to the Beech Baron – Fuselage and flap

The PA-32 Saratoga was extensively damaged with evidence of impact on the right wingtip and aileron. As a result of the impact, the airframe was significantly distorted (Figure 3).



**Figure 3**

Damage to the PA-32 Saratoga

### Analysis

The pilot was aware that the runway length was just enough in the wet conditions, as he stated the touchdown needed to be firm and at the threshold. He considered that he executed the touchdown as planned but the wet conditions affected the braking over the last third of the runway. The pilot recognised that there was insufficient runway remaining to come to a stop and that he had passed the point where a go-around could be successfully commenced. He therefore decided to come to halt by deliberately ground-looping the aircraft. The pilot performed the manoeuvre as intended except the initial move was too wide and the aircraft collided with a parked aircraft. Both the parked aircraft and helicopter were clear of the runway and would not have impeded a normal landing. The pilot later commented that, in his opinion, "it is inadvisable to park aircraft in an area where overshooting the runway is a possibility. Any obstructions in this area should be minimised to reduce the possibility of damage and injury to personnel".

The CAA have published document CAP 793: '*Safe Operating Practices at Unlicensed Aerodromes*' which includes recommended safety factors to be applied when calculating landing distances on wet grass runways.

### Conclusion

The pilot attempted an abnormal manoeuvre to stop the aircraft after it became apparent that braking performance had been affected by the wet condition of the runway. The manoeuvre would have been successful had contact not been made with a parked aircraft. No persons on the landing aircraft were injured and the parked aircraft was unoccupied.