

ACCIDENT

Aircraft Type and Registration:	DHC-1 Chipmunk 22, G-BCOO	
No & Type of Engines:	1 De Havilland Gipsy Major 10 MK.2 piston engine	
Year of Manufacture:	1950 (Serial no: C1/0209)	
Date & Time (UTC):	31 May 2014 at 1335 hrs	
Location:	Hawarden Airfield, Flintshire	
Type of Flight:	Private	
Persons on Board:	Crew - 2	Passengers - None
Injuries:	Crew - None	Passengers - N/A
Nature of Damage:	One propeller blade, puncture to left wing lower surface, left trailing edge flap, left elevator	
Commander's Licence:	Airline Transport Pilot's Licence	
Commander's Age:	50 years	
Commander's Flying Experience:	25,716 hours (of which 45 were on type) Last 90 days - 125 hours Last 28 days - 23 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

During a touch-and-go the aircraft developed an unstable oscillation after touchdown, causing it to deviate either side of the runway centreline. The Pilot in Command (PIC) took control from the handling pilot, but was unable to prevent the aircraft departing the paved runway onto the adjacent grass and striking a taxiway marker board. There were no injuries and both pilots vacated the aircraft without assistance.

History of the flight

The aircraft was being flown from Sleaf Airfield to Hawarden Airfield, with the intention of carrying out some circuits on arrival. On-board were two pilots; both co-owners of the aircraft. Pilot A, who had considerable tailwheel experience and was PIC for the flight, occupied the rear seat. Pilot B, occupying the front seat, held a Commercial Pilot's Licence but had no tailwheel experience and had not yet completed differences training for the DHC-1 Chipmunk.

On arrival at Hawarden, Runway 22 was in use and the surface wind was 10 kt from 330°(variable between 290° and 350°), giving tailwind and crosswind components. Pilot A later recalled being concerned that the wind may not have been entirely suitable for the aircraft. However, he reasoned that the crosswind was within the aircraft's 10 kt crosswind limit and, while there was no published tailwind limit for the aircraft, he considered the

runway sufficiently long to accommodate the tailwind component. It was agreed that Pilot B would carry out a touch-and-go, with Pilot A following through on the controls.

Following a successful approach and touch-and-go requiring no intervention by Pilot A, the aircraft departed into a left-hand circuit and Pilot B commenced an approach for a second touch-and-go. ATC reported the wind as 9 kt from 340°. After touchdown, a progressively unstable oscillation in lateral control developed, causing the aircraft to deviate either side of the runway centreline. Pilot A took control and applied full left rudder and brakes, but the aircraft did not respond. He therefore advanced the throttle to approximately 1,500 rpm with the intention of straightening the nose and commencing a go-around. He reported that the aircraft again failed to respond, and considering that no further corrective action could be completed within the remaining runway paved area, he closed the throttle and allowed the aircraft to depart the runway onto the adjacent grass. The aircraft remained upright and came to rest approximately 30 m from the runway. No injuries were sustained, but it subsequently became apparent that the aircraft had hit a taxiway marker board after departing the runway, causing damage to the left trailing edge flap, left elevator, lower left wing surface and one propeller blade. The Airport Fire Service attended, although the aircraft was taxied off the grass to the ramp under its own power and both pilots vacated the aircraft without assistance.

Discussion

Pilot A was aware of the Hawarden Airfield Aeronautical Information Publication (AIP) entry which contains a warning of turbulence from factory buildings with wind speeds in excess of 15 kt. He considers it possible that the localised wind strength in the area where the oscillation developed may have been stronger than that reported by ATC.

Further, Pilot A reported that he had considered requesting a runway change upon arriving at Hawarden and reviewing the surface wind, but he elected not to, as he believed this would incur a lengthy delay. In retrospect, he considers that requesting a change of runway may have been prudent. He also considers that allowing Pilot B to handle the aircraft near its crosswind limit may have been ill-advised. However, he had been very impressed by Pilot B's handling of the aircraft during the first approach, touchdown and rollout.

Pilot A's previous experience on the DHC-1 Chipmunk had predominantly been on another aircraft with more powerful brakes, and being used to a faster and more pronounced response, he considered it possible that he may have applied insufficient braking.