

ACCIDENT

Aircraft Type and Registration:	Piper PA-28-161 Cherokee Warrior II, G-BSZT	
No & Type of Engines:	1 Lycoming O-320-D3G piston engine	
Year of Manufacture:	1981 (Serial no: 28-8116027)	
Date & Time (UTC):	26 October 2018 at 1004 hrs	
Location:	Shoreham Airport, West Sussex	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 3
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Damage to engine cowlings, exhaust and broken nose leg	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	47 years	
Commander's Flying Experience:	141 hours (of which 66 were on type) Last 90 days - 5 hours Last 28 days - 2 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot	

Synopsis

As the aircraft rotated during takeoff, a gust of wind caused it to yaw to the left, which together with the crosswind meant the aircraft left the runway and came to rest in a ditch. None of the occupants were injured.

History of the flight

The pilot hired the aircraft to take two friends and a child for a sightseeing flight in the local area. He usually flew a different aircraft type but this was in maintenance and was not available. He had not flown the PA-28 for seven months.

Having completed the checks on the aircraft and started the engine, the pilot requested taxi clearance and was given instructions to proceed to the holding point for Runway 24. On reaching Runway 24, the pilot carried out the power checks on the aircraft and was then informed that the runway had changed to Runway 02. He made a 180° turn on the taxiway and proceeded to the holding point for Runway 02. He completed the power checks again before telling the tower that he was ready for departure.

The pilot was cleared for takeoff and, after checking the wind was within limits, commenced his takeoff roll. As he reached a speed of 70 KIAS he began to pull back gently on the control column. As the nose pitched up through approximately 3°, a gust of wind caused the aircraft

to yaw to the left. The pilot attempted to put the nosewheel back onto the runway by pushing on the control column, but the aircraft departed the runway to the left. Witnesses reported seeing the aircraft bounce across the grass, possibly becoming airborne momentarily due to the rough surface. They also noted that the aircraft seemed to continue at high speed for some time with no apparent reduction in power. Eventually the aircraft was seen to slow but the pilot found it difficult to stop the aircraft before it struck undergrowth. The aircraft then ran into a ditch at slow speed as shown in Figures 1 and 2.

None of the aircraft occupants were injured and they were able to vacate the aircraft without assistance.



Figure 1

G-BSZT came to rest in a ditch



Figure 2

G-BSZT with the takeoff runway visible behind

Meteorology

Weather reports from Shoreham on the day of the accident showed that the wind was 290° at 13 kt at 0950 hrs, and 310° at 8 kt at 1050 hrs. This would have meant a maximum cross wind of 13 kt from the left on Runway 02. There were some showers in the vicinity of the airport which was reflected in the forecast for the day which included rain showers.

Analysis

The pilot was unable to keep the aircraft on the runway during the final stages of the takeoff roll. With showers in the vicinity of the airfield, he may have encountered a gust of wind unexpectedly which combined with the crosswind from the left and caused the aircraft to yaw to the left and leave the runway. With the wheels on the grass, the pilot was unable to stop the aircraft before it struck undergrowth and came to rest in a ditch.

Although the pilot had recent flying experience, he had not flown this aircraft type for seven months and may have underestimated the amount of rudder needed to compensate for the crosswind.

Conclusion

The aircraft left the runway, probably due to the effects of the crosswind. The pilot and passengers were unhurt.