

ACCIDENT

Aircraft Type and Registration:	Piper PA-28-180 Cherokee, G-AZYF	
No & type of Engines:	1 Lycoming O-360-A4A piston engine	
Year of Manufacture:	1968	
Date & Time (UTC):	3 July 2006 at 1041 hrs	
Location:	Scilly Isles (St Mary's) Airport	
Type of Flight:	Private	
Persons on Board:	Crew - 1	Passengers - 1
Injuries:	Crew - None	Passengers - None
Nature of Damage:	Nose leg, nose wheel fairing and propeller, engine shock-loaded	
Commander's Licence:	Private Pilot's Licence	
Commander's Age:	66 years	
Commander's Flying Experience:	350 hours (of which 197 were on type) Last 90 days - 10 hours Last 28 days - 7 hours	
Information Source:	Aircraft Accident Report Form submitted by the pilot and further enquiries by the AAIB	

Synopsis

After landing on the grass part of Runway 09 at Scilly Isles (St Mary's) Airport, the aircraft hit a small ridge or pot hole and became airborne again. Subsequently the aircraft landed on its nose wheel which then collapsed. After the aircraft stopped the occupants vacated uninjured.

History of flight

The aircraft was flying from Land's End Airport to Scilly Isles (St Mary's) Airport. Runway 09 at St Mary's was in use; it is 523 m in length and its grass and asphalt surface was dry. The first 250 m of Runway 09 is grass followed by 273 m of asphalt. The first 100 m of Runway 09

rises at a 1:20 gradient (5%). The pilot reported that the weather was CAVOK, the wind was from 040° at 15 kt and it was "blustery".

The pilot stated that after an uneventful transit he positioned the aircraft downwind for Runway 09. At the end of the downwind leg ATC instructed him to fly one right hand orbit, so as to increase the separation between his aircraft and another making an approach to Runway 09.

After the orbit the pilot reversed the turn and rolled out on final approach. At this point he realised that he was

slightly south of the extended centreline and closer to the runway than he would have wished. The aircraft was by then also slightly high and fast but he felt “comfortable”. At this time the pilot had extended two stages of flap, which is his normal landing configuration, but in an attempt to slow down and descend, he elected to deploy a third stage of flap.

Knowing that the runway was relatively short, the pilot wanted to ensure that he landed close to the threshold. He touched down approximately 5 kt fast, at 75 kt, and “a little heavy” close to the threshold. The aircraft rolled for approximately two seconds before it hit a small ridge or pot hole and then quickly became airborne again achieving a height of approximately 5 ft agl. The nose of the aircraft subsequently dropped quickly and the pilot was unable to raise it before the aircraft landed on its nosewheel. The nose leg collapsed and the propeller struck the ground. The pilot could not recall if the aircraft bounced more than once.

The ATCO in the control tower approximately 120 m away reported that the aircraft appeared to bounce “two or three times” to a height of approximately 10 ft agl. After the last bounce the aircraft was in a nose-low

attitude before it landed. After landing the aircraft veered right and continued down Runway 18, which also has a grass surface, before coming to rest just off the edge of Runway 18. The pilot and his passenger vacated the aircraft uninjured.

Damage assessment

Inspection by the repair agency revealed damage to the nose leg, the nosewheel fairing, the propeller, the engine mount and the heater box. The engine had also been shock-loaded.

Discussion

As a result of the fresh crosswind the aircraft ended up south of the runway’s extended centreline. The pilot reported, in hindsight, that he should have re-positioned the aircraft for another approach. He added that with the third stage of flap selected, he ended up in a very steep and fast approach and was descending “like an express lift.”

As a consequence of the slightly fast landing and striking an uneven part of the grass runway during the landing roll, control of the aircraft was momentarily lost before it landed heavily on its nose gear.