



<b>LIMITED SERIOUS INCIDENT INVESTIGATION REPORT</b>
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<b>Reference Number</b>	CA18/3/2/1355						
<b>Classification</b>	Serious Incident	<b>Date</b>	24 July 2021	<b>Time</b>	0842Z		
<b>Type of Operation</b>	Private (Part 91)						
<b>Location</b>							
Place of Departure	The Coves Private Airstrip, North West Province		Place of Intended Landing	Kralingen Farm Private Airstrip, Limpopo Province			
Place of Incident	Kralingen Farm Private Airstrip, Limpopo Province						
GPS Co-ordinates	Latitude	S 24° 35' 40"	Longitude	E 028° 06' 24"	Elevation	4492ft	
<b>Aircraft Information</b>							
Registration	ZS-FTC						
Model/Make	Piper PA-28-235 Cherokee						
Damage to Aircraft	Substantial		Total Aircraft Hours	3613.3			
<b>Pilot-in-command</b>							
Licence Valid	Yes	Gender	Male		Age	48	
Licence Type	Private Pilot Licence (PPL)						
Total Hours on Type	22.8		Total Flying Hours	96.2			
<b>People On-board</b>	1+3	Injuries	0	Fatalities	0	Other (on ground)	0
<b>What Happened</b>							
<p>On 24 July 2021 at approximately 0824Z, a pilot-in-command accompanied by three passengers took off on-board a Piper PA-28-235 Cherokee aircraft with registration ZS-FTC. They were engaged on a private flight from The Coves private airstrip situated next to Hartbeespoort Dam in North West province and destined for Kralingen private farm airstrip situated in Limpopo province. The flight was conducted under Visual Meteorological Conditions (VMC) by day and under the provision of Part 91 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>A pre-flight inspection was conducted by the pilot, which was followed by an uneventful take-off and flight to the planned destination. The pilot stated that he was not familiar with the airstrip as it was his first time visiting the area. He had followed the Global Positioning System (GPS) co-ordinates to reach the destination. According to the pilot, upon reaching the airstrip, he flew overhead (the airstrip) at a safe height to inspect the area in preparation for landing. The pilot then conducted a left-side circuit pattern, aiming to land the aircraft on Runway 18. The pilot further stated that on final approach for landing on Runway 18, he felt a gusty eastern wind component and a northerly wind before touch</p>							

down. According to the pilot's questionnaire report, the weather condition was: wind speed at 6-8 knots in a northerly direction. Two weather station reports were considered in relation to the serious incident site, namely, Wonderboom Airport (FAWB) and Polokwane International Airport (FAPP) — the weather at FAPP: 240900Z 07008KT CAVOK 12/M05 Q1036 NOSIG; and FAWB: 240900Z 12005KT CAVOK 11/M05 Q1037.

The wind direction mentioned in the weather reports supported the required aircraft's heading for a landing, and the wind speed could not produce a severe gust which might subject the aircraft to unstable landing conditions at the time. According to the pilot's statement, at approximately 0842Z during touch down, he lost directional control of the aircraft and the nose landing gear wheel dug into loose sand (uneven runway surface) and the aircraft veered off towards the left of the runway. The pilot attempted to correct loss of direction by applying the right rudder, but he was unsuccessful. The nose gear strut collapsed following contact with rough terrain on the runway edge. The aircraft's propeller subsequently struck the ground and the aircraft's engine stopped. The aircraft came to a halt near the bush on the left-side of the runway in use.

Following the serious incident, the pilot switched off the master switch, completed aircraft shutdown procedures and disembarked the aircraft unassisted together with his passengers. There were no injuries sustained by the occupants during the serious incident sequence. The aircraft sustained substantial damage to the nose landing gear strut and the propeller.



**Figure 1:** The aircraft post-incident.

The pilot was in possession of a Private Pilot Licence issued by the Regulator (SACAA) on 31 July 2020 with an expiry date of 30 July 2021. The pilot was in possession of a Class 2 medical certificate issued by the Regulator on 27 May 2020 with an expiry date of 31 May 2022. The pilot had a total of 22.8 flying hours on the aircraft type and a total of 96.2 flying hours on various aircraft types.

The Aircraft Maintenance Organisation (AMO) that maintained the aircraft had an AMO certificate issued by the Regulator on 9 April 2021 with an expiry date of 30 April 2022. The AMO issued the aircraft a Certificate of Release to Service (CRS) on 25 May 2020 at 3576 hours, which would lapse at 3676 hours or on 25 May 2021, whichever comes first. The aircraft had an Airworthiness Certificate issued by the Regulator on 1 April 2021 with an expiry date of 30 April 2022. Following the expiry date of the CRS, the AMO conducted an annual Mandatory Periodic Inspection (MPI) and reissued the aircraft with a Certificate of Release to Service on 4 June 2021 at 3603.1 hours which would lapse at 3703.1 or on 4 June 2022, whichever comes first. This revalidated the existing Certificate of Airworthiness.

There were no defects recorded in the aircraft's logbook which could have contributed to the serious incident.

**Probable cause:**

The pilot lost directional control of the aircraft after touchdown on an uneven runway surface, which led to the aircraft veering off to the left-side of the runway. This resulted in the collapse of the nose gear strut and, subsequently, the propeller blades hit the ground.

Contributing factors:

The pilot not being familiar with the airstrip conditions; and improper landing technique.

**Safety Action/s**

None.

**Safety Message**

Pilots are encouraged to always conduct a thorough flight planning and enquire about the conditions of the destination's airport or airfield.

**Purpose of the Investigation**

*In terms of Regulation 12.03.1 of the Civil Aviation Regulations (CAR) 2011, this report was compiled in the interest of the promotion of aviation safety and the reduction of the risk of aviation accidents or incidents and **not to apportion blame or liability.***

**About this Report**

*Decisions regarding whether to investigate, and the scope of an investigation are based on many factors, including the level of safety benefit likely to be obtained from an investigation. For this occurrence, no investigation has been conducted, and the Accident and Incident Investigations Division (AIID) has relied on the information submitted by the affected person/s and organisation/s to compile this brief report. The report has been compiled using information supplied in the initial notification, as well as follow-up information to bring awareness of potential safety issues to the industry in respect of this occurrence, as well as possible safety action/s that the industry might want to consider in preventing a recurrence of a similar accident.*

*This report provides an opportunity to share safety message/s in the absence of an investigation.*

*All times given in this report are Co-ordinated Universal Time (UTC) and will be denoted by (Z). South African Standard Time is UTC plus 2 hours.*

<b>Disclaimer</b>	
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**This report is issued by:**

**Accident and Incident Investigations Division  
South African Civil Aviation Authority  
Republic of South Africa**