



LIMITED ACCIDENT INVESTIGATION REPORT
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Reference Number		CA18/2/3/10088					
Classification	Accident	Date	7 December 2021	Time	1615Z		
Type of Operation	Private (Part 91)						
Location							
Place of Departure	Kimberly Aerodrome FAKM, Northern Cape Province		Place of Intended Landing		Waterval Safari Private Airstrip, Northern Cape Province		
Place of Accident	Waterval Safari Private Airstrip, South of Kimberly, Northern Cape Province						
GPS Co-ordinates	Longitude	S 29°07'59.02"	Latitude	E 024°32'44.01"	Elevation	3743 ft	
Aircraft Information							
Registration	ZS-LUB						
Model/Make	Cessna T210M (Serial Number: 210-61936)						
Damage to Aircraft	Substantial		Total Aircraft Hours		2906.5		
Pilot-in-command							
Licence Type	Private Pilot Licence (Aeroplane)		Gender	Male	Age	57	
Licence Valid	Yes						
Total Hours on Type	11		Total Flying Hours		618.4		
People On-board	1 + 3	Injuries	1	Fatalities	0	Other (on Ground)	0
What Happened							
<p>On Tuesday, 7 December 2021, a pilot and three passengers on-board a Cessna T210M aircraft with registration ZS-LUB took off from Mossel Bay on a private flight to Waterval Safari Airstrip, with the intention to refuel at Kimberly Aerodrome (FAKM). The flight from Mossel Bay to FAKM was uneventful. The segmented flight was conducted under visual flight rules (VFR) in day light and under the provisions of Part 91 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>According to the pilot, he overflew the Waterval Safari Airstrip, which is 20 kilometres (km) from FAKM, three times in accordance with (IAW) unmanned aerodrome joining procedure, inspecting the airstrip condition before committing to land. This was the pilot's first time landing at the airstrip. The pilot stated that he noticed what appeared to be a heap of sand on the threshold of Runway 28 (RWY28). The approach for RWY28 was stable, however, the landing surface was uneven, and he was facing the sun.</p> <p>The aircraft landed on the main wheels first on the soft sand, which reduced the aircraft's speed; the nose gear jerked downwards and, subsequently, collapsed then detached from the aircraft. The aircraft skidded approximately 25 metres (m), thereafter, nosed over before it came to rest in an inverted position on the gravel runway approximately 30m from first point of impact. The aircraft</p>							

was substantially damaged during the accident sequence and one of the passengers sustained minor injuries.



Figure 1: Heap of sand on RWY28 and the detached nose gear assembly. (Source: EMS)



Figure 2: The aircraft as it came to rest on the runway. (Source: EMS)



Figure 3: The aircraft in an inverted position on the runway. (Source: EMS)

What was found post-accident:

- The pilot confirmed that there were no mechanical anomalies or weather conditions that contributed to the accident.
- The 1.2km long gravel runway was recently prepared, and a 50m heap of sand was placed on the left-side of the threshold of RWY28.

Probable Cause

The aircraft touched down before the runway threshold and the speed was abruptly reduced by hard uneven soil during landing, resulting in the aircraft being jerked forward, breaking its nose gear assembly before coming to rest in an inverted position.

Safety Action/s

None.

Safety Message and/or Safety Recommendation/s

Pilots to ensure that they conduct thorough runway inspections prior to landing at unfamiliar aerodromes.

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.

Disclaimer

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This report is issued by:

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