

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10488						
Classification	Accident	Date	4 September 2024	Time	1030Z		
Type of Operation	Private (Part 91)						
Location							
Place of Departure	Kitty Hawk Aerodrome (FAKT), Gauteng Province			Place of Intended Landing	Kego Mining Aerodrome, Mpumalanga Province		
Place of Occurrence	Runway 34 at Kego Mine Aerodrome						
GPS Co-ordinates	Latitude	25°53'35.70" S	Longitude	028°59'02.57" E	Elevation	5 196 feet	
Aircraft Information							
Registration	ZS-MSA						
Make; Model; S/N	Cessna Aircraft Company; T210L (Serial Number 210-61107)						
Damage to Aircraft	Substantial			Total Aircraft Hours	6 837.2		
Pilot-in-command							
Licence Type	Airline Transport Pilot Licence (ATPL)		Gender	Male		Age	30
Licence Valid	Yes	Total Hours	4 788.0		Total Hours on Type	81.0	
Total Hours Past 30 Days	58.1		Total Hours on Type Past 90 Days	23.7			
People On-board	1 + 0	Injuries	0	Fatalities	0	Other (on ground)	0
What Happened							
<p>On Wednesday afternoon, 4 September 2024, a pilot on-board a Cessna T210L with registration ZS-MSA took off on a private flight from Kitty Hawk Aerodrome (FAKT) in Gauteng province to Kego Mining Aerodrome in Mpumalanga province. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 91 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>The pilot took off from FAKT at 1000Z to Kego Mining Aerodrome; the flight lasted approximately 30 minutes. Once overhead Kego Mining Aerodrome, the pilot followed the unmanned aerodrome approach procedure, conducted a runway inspection, and assessed the wind which was calm. The pilot did not perform the before-landing checks and proceeded with the approach to land on Runway 34 without selecting the landing gear down, which resulted in a wheels-up landing. As a result, the propeller struck the runway as the aircraft skidded on its belly before it stopped on the runway centreline. Thereafter, the pilot switched off the master switch and disembarked from the aircraft unassisted and unharmed. The aircraft sustained substantial damage.</p> <p>The accident occurred during daylight at Global Positioning System (GPS) co-ordinates determined to be 25°53'35.70" South 028°59'02.57" East, at an elevation of 5 196 feet (ft).</p>							



Figure 1: The aircraft landed on Runway 34, indicated by a yellow pin. (Source: Google Earth)



Figure 2: The aircraft after it had stopped on the runway with the landing gear retracted. (Source: Pilot)



Figure 3: The front view of the aircraft after the accident. (Source: Pilot)

Before Landing Checks (Source: Cessna T210 Pilot's Operating Handbook (POH), Section 4, Normal Procedures)

BEFORE LANDING

1. Seats, Seat Belts, and Shoulder Harnesses -- SECURE.
2. Auxiliary Fuel Pump -- OFF.

CAUTION

Failure to turn the auxiliary fuel pump off may result in a complete power loss at reduced throttle settings due to an excessively rich mixture.

3. Fuel Selector Valve -- BOTH ON.
4. Landing Gear -- EXTEND (below 165 KIAS).
5. Landing Gear -- CHECK (observe main gear down and green indicator light on).
6. Mixture -- RICH.
7. Propeller -- HIGH RPM.
8. Radar (if installed) -- OFF (after landing assured).
9. Autopilot (if installed) -- OFF.
10. Wing Flaps -- AS DESIRED (0° to 10° below 160 KIAS, 10° to 20° below 130 KIAS, and 20° to 30° below 115 KIAS).
11. Air Conditioner (if installed) -- OFF.

LANDING GEAR WARNING SYSTEM

The airplane is equipped with a landing gear warning system designed to help prevent the pilot from inadvertently making a wheels-up landing. The system consists of a throttle-actuated switch which is electrically connected to a dual warning unit. The warning unit is connected to the airplane speaker.

When the throttle is retarded below approximately 15 inches of manifold pressure (master switch on), the throttle linkage will actuate a switch which is electrically connected to the gear warning portion of a dual warning unit. If the landing gear is retracted (or not down and locked), an intermittent tone will be heard on the airplane speaker. The system may be checked for correct operation before flight by retarding the throttle to idle and depressing the green gear-down position indicator light half way in. With the indicator light depressed as described, an intermittent tone should be heard on the airplane speaker.

Findings

1. Personnel Information

- 1.1 The pilot had an Airline Transport Pilot Licence (ATPL) that was initially issued by the Regulator on 13 October 2021. The licence was reissued on 23 November 2022 with an expiry date of 22 November 2024. The pilot had flown a total of 4 788.0 hours, of which 81.0 hours were flown on the aircraft type.
- 1.2 The pilot was issued a Class 1 aviation medical certificate on 22 August 2024 with an expiry date of 31 August 2025 with no restrictions.
- 1.3 The pilot was the sole occupant on-board the aircraft at the time of the flight.
- 1.4 The pilot stated that he did not perform his before-landing checks to ensure that the landing gear was down and locked before landing.

2. Aircraft Information

- 2.1 The last maintenance inspection of the aircraft before the accident flight was certified on 18 April 2024 at 6 410.9 airframe hours. The aircraft accrued 77.2 hours since the last inspection.

2.2	The aircraft had a valid Certificate of Airworthiness (C of A) that was initially issued on 15 November 2013. The latest ATF had an expiry date of 12 April 2025.
2.3	The aircraft's Certificate of Registration (C of R) was issued to the present owner on 5 April 2024.
2.4	The aircraft was issued a Certificate of Release to Service (CRS) on 18 April 2024 with an expiry date of 17 April 2025 or at 6 510.9 airframe hours, whichever occurs first.
2.5	The aircraft landed with the landing gear retracted even though it was fitted with a serviceable landing gear warning system.
3.	<u>Aerodrome and Meteorological Information</u>
3.1	The pilot followed the unmanned aerodrome procedure by joining overhead Kego Mining Aerodrome to inspect the runway and assess the wind. The pilot opted to land on Runway 34.
3.2	Fine weather conditions prevailed at the time of the flight with the temperature at 27°C. The weather had no bearing on this accident.

Probable Cause	
The pilot stated that he did not perform his before-landing checks and proceeded with the approach to land which resulted in a wheels-up landing.	
Contributing Factor	
Omission to conduct pre-landing checklist as required in the lading procedures.	
Safety Action(s)	
None.	
Safety Message and/or Safety Recommendation/s	
None.	
About this Report	
<p><i>The decision to conduct a limited investigation is based on factors including whether the cause is known and the evidence supporting the cause is clear, the level of safety benefit likely to be obtained from an investigation, and that will determine the scope of an investigation. For this occurrence, a limited 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 limited report. The report has been compiled using information supplied in the initial notification, as well as from follow-up desktop inquiries 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 occurrence.</i></p> <p><i>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.</i></p>	

Purpose

In terms of Regulation 12.03.1 of the Civil Aviation Regulations (CAR) 2011 and ICAO Annex 13, 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.

Disclaimer

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**This report is issued by:
Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa**