



## LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

<b>Reference Number</b>	CA18/3/2/1509						
<b>Classification</b>	Serious Incident		<b>Date</b>	3 October 2025		<b>Time</b>	0630Z
<b>Type of Operation</b>	Training (Part 141)						
<b>Location</b>							
Place of Departure	Morningstar Airfield, Western Cape Province		Place of Intended Landing	Morningstar Airfield, Western Cape Province			
Place of Occurrence	Runway 20 at Morningstar Airfield, Western Cape Province						
GPS Co-ordinates	Latitude	34° 45' 34.49" S	Longitude	018° 32' 57.79" E	Elevation	221 ft	
<b>Aircraft Information</b>							
Registration	ZU-IAZ						
Make; Model; S/N	Airplane Factory; Sling 2 (Serial Number: 069)						
Damage to Aircraft	Minor			Total Aircraft Hours	1 095.8		
<b>Pilot-in-command</b>							
Licence Type	Student Pilot Licence (SPL)		Gender	Male		Age	64
Licence Valid	Yes	Total Hours	33.6		Total Hours on Type	33.6	
Total Hours 30 Days	3.6		Total Flying on Type Past 90 Days	11.1			
<b>People On-board</b>	1 + 0	<b>Injuries</b>	0	<b>Fatalities</b>	0	<b>Other (on ground)</b>	0
<b>What Happened</b>							
<p>On Friday, 3 October 2025, a student pilot (SP) on-board a Sling 2 aircraft with registration ZU-IAZ intended to conduct a solo training flight from Morningstar Airfield in Western Cape province to the general flying area (GFA), with the intention to return to the same airfield. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011, as amended.</p> <p>The SP stated that he conducted the pre-flight inspection under the supervision of his flight instructor (FI) in preparation for his second solo flight to the GFA. There were no anomalies detected. During the ground run-up checks, all engine parameters were within the normal operating range in accordance with (IAW) the aircraft maintenance manual (AMM). Whilst on the take-off roll on Runway (RWY) 20, the pilot lost directional control of the aircraft due to crosswind conditions at the time. The aircraft veered off to the grass area on the left side of the runway during which the nose gear strut broke; consequently, the nose pitched down and the propeller blades struck the ground. The aircraft came to rest in a nose-down attitude on the left side of RWY 20.</p> <p>The SP was not injured; the aircraft sustained damage to the nose gear strut, propeller blades and lower engine cowling.</p>							



**Figure 1:** An aerial view of the Morningstar Airfield and the approximate serious incident site. The red arrow indicates the direction of flight. (Source: Google Earth)



**Figure 2:** The aircraft at the serious incident site. (Source: Pilot)

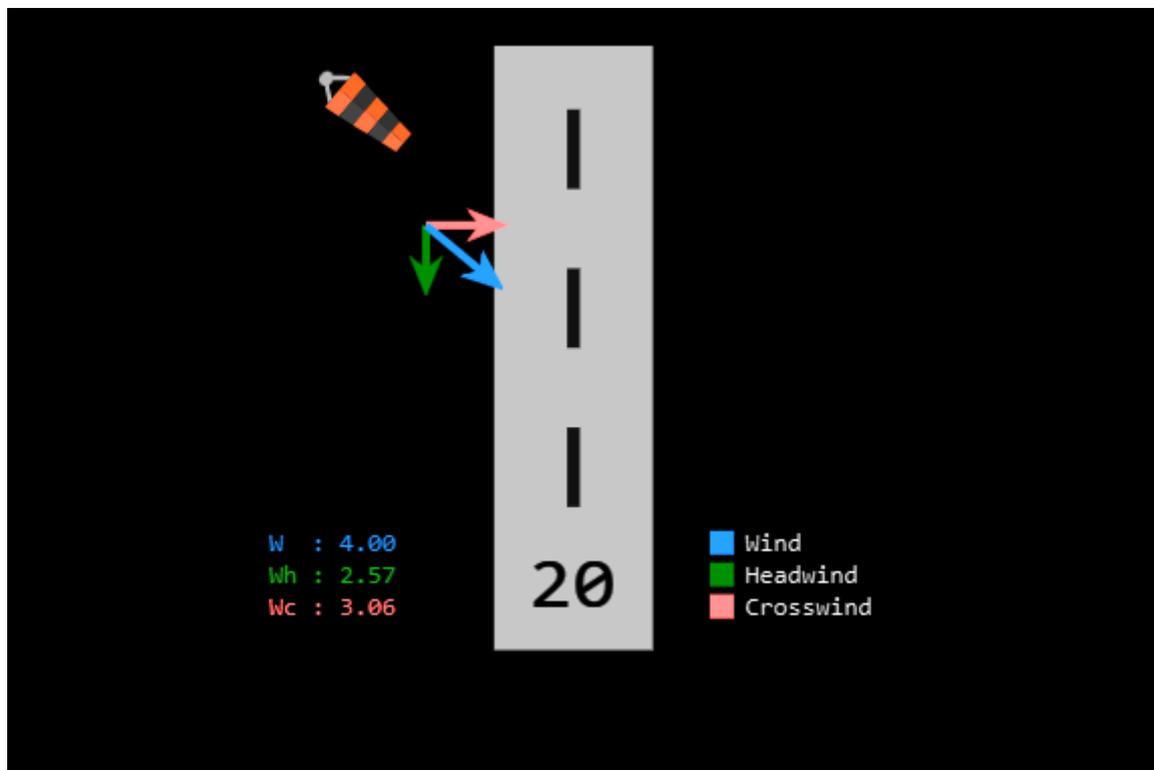
The weather information below was obtained from the Meteorological Aerodrome Report (METAR) that was issued by the South African Weather Service (SAWS) for Cape Town International Airport

(FACT) on 3 October 2025 at 0630Z. The serious incident site was approximately 12 nautical miles (nm) south of FACT.

FACT 030630Z 15004KT 130V190 CAVOK 15/07 Q1020 NOSIG=.

The wind direction varied between 130 and 190 degrees.

Wind Direction	150° 130°V190°	Wind Speed	4 kt	Visibility	10 km
Temperature	15°C	Cloud Cover	CAVOK	Cloud Base	CAVOK
Dew Point	07°C	QNH	1020 hPa		



**Figure 3:** The wind component at take-off. (Source: <https://e6bx.com/wind-components/>)

Crosswind Take-off (Source: Federal Aviation Administration FAA-8083-3C)

*While it is usually preferable to take-off directly into the wind whenever possible or practical, there are many instances when circumstances or judgment indicate otherwise. Therefore, the pilot must be familiar with the principles and techniques involved in crosswind take-offs, as well as those for normal take-offs. A crosswind affects the airplane during take-off much as it does during taxiing. With*

*this in mind, the pilot should be aware that the technique used for crosswind correction during take-offs closely parallels the crosswind correction techniques used for taxiing.*

### *Take-off Roll*

*The technique used during the initial take-off roll in a crosswind is generally the same as the technique used in a normal take-off roll, except that the pilot needs to apply aileron pressure into the crosswind. This raises the aileron on the upwind wing, imposes a downward force on that wing to counteract the lifting force of the crosswind, and thus, prevents the wing from rising. The pilot should remember that since the ailerons and rudder are deflected, drag will increase; therefore, less initial take-off performance should be expected until the airplane is wings-level in co-ordinated flight in the climb.*

*While taxiing into take-off position, it is essential that the pilot check the windsock and other wind direction indicators for the presence of a crosswind. If a crosswind is present, the pilot should apply full aileron pressure into the wind while beginning the take-off roll. The pilot should maintain this control position, as the airplane accelerates, and until the ailerons become effective in manoeuvring the airplane about its longitudinal axis. As the ailerons become effective, the pilot will feel an increase in pressure on the aileron control.*

*While holding aileron pressure into the wind, the pilot should use the rudder to maintain a straight take-off path (Illustration 1). Since the airplane tends to weathervane into the wind while on the ground, the pilot will typically apply downwind rudder pressure. When the pilot increases power for take-off, the resulting P-factor causes the airplane to yaw to the left. While this yaw may be sufficient to counteract the airplane's tendency to weathervane into the wind in a crosswind from the right, it may aggravate this tendency in a crosswind from the left. In any case, the pilot should apply rudder pressure in the appropriate direction to keep the airplane rolling straight down the runway.*

*As the forward speed of the airplane increases, the pilot should apply sufficient aileron pressure into the crosswind to keep the wings level. The effect of the crosswind component will not completely vanish; therefore, the pilot needs to maintain some aileron pressure throughout the take-off roll. If the upwind wing rises, the amount of wing surface exposed to the crosswind will increase, which may cause the airplane to lose lateral alignment with the runway centreline and to "skip." The pilot uses rudder pressure to keep the airplane's longitudinal axis parallel to the runway centreline.*

*This "skipping" is usually indicated by a series of very small bounces caused by the airplane attempting to fly and then settling back onto the runway. During these bounces, the crosswind also*

tends to move the airplane sideways, and these bounces develop into sideskipping. This sideskipping imposes severe side stresses on the landing gear and may result in structural failure.

During a crosswind take-off roll, it is important that the pilot hold sufficient aileron pressure into the wind not only to keep the upwind wing from rising but to hold that wing down so that the airplane sideslips into the wind enough to counteract drift immediately after lift-off.

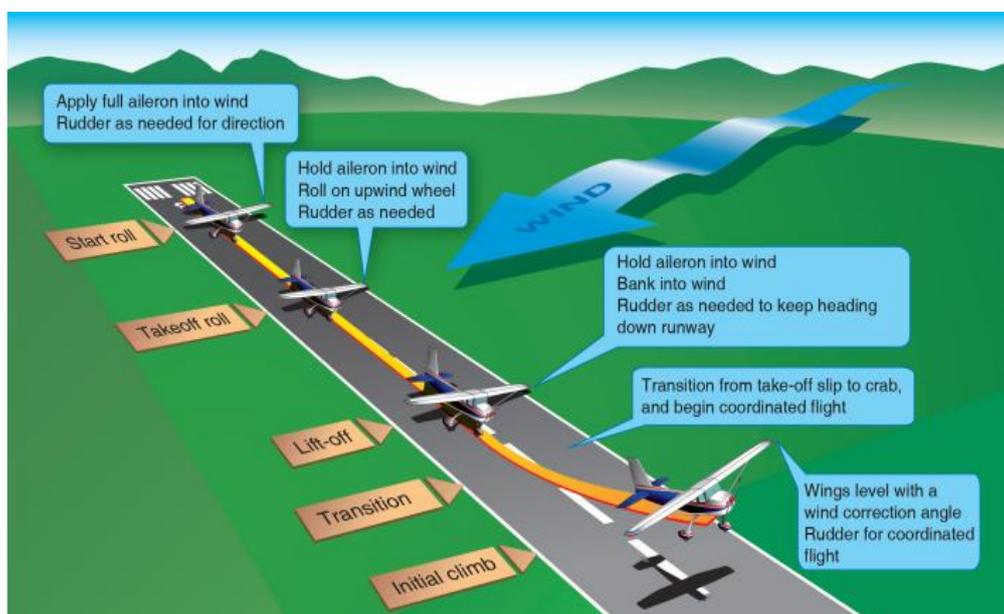


Illustration 1: Crosswind at the time of roll and take-off climb. (Source: FAA-8083-3C)

## Findings

### 1. Personnel Information

1.1 The student pilot (SP) had a Student Pilot Licence (SPL) that was initially issued on 17 December 2024 with an expiry date of 16 December 2025. The aircraft type was endorsed on his licence.

1.2 The SP had a Class 2 aviation medical certificate that was issued on 27 November 2024 with an expiry date of 27 November 2025. The SP was adequately qualified and licensed to conduct the training flight.

1.3 The training organisation was issued an Approved Training Organisation (ATO) Certificate by the Regulator (SACAA) on 8 December 2020 with an expiry date of 31 December 2025.

### 2. Aircraft Information

2.1 The last annual inspection of the aircraft was conducted and certified on 25 September 2025 at 1 082.1 hours. The aircraft had accrued 13.7 hours since the said inspection.

2.2 The aircraft had a valid Authority-to-Fly (ATF) Certificate that was initially issued on 22 April 2019. The ATF was renewed on 25 March 2025 with an expiry date of 30 April 2026.

2.3 The aircraft's Certificate of Registration (C of R) was issued to the present owner on 14 November 2024.

2.4 The aircraft was issued a Certificate of Release to Service (CRS) on 25 September 2025 with an expiry date of 24 September 2026 or at 1 182.1 airframe hours, whichever occurs first.

2.5 The aircraft was maintained by an aircraft maintenance organisation (AMO) which had the AMO Certificate that was issued by the Regulator (SACAA) on 15 December 2024 with an expiry date of 31 July 2026.

2.6 The SP lost directional control of the aircraft during the take-off run in crosswind conditions. The aircraft veered off to left and exited the runway surface and onto the grass area. The nose gear strut broke, and the propeller blades made contact with the ground before the aircraft came to rest in a nose-down attitude. The pilot was not injured.

### 3. Environment

3.1 The weather was a contributory factor to this serious incident with an average left crosswind of 3 knots.

#### **Probable Cause(s)**

The aircraft veered off to the left of centreline and the pilot lost directional control of the aircraft which led to the subsequent excursion to the left of the runway.

#### **Contributing Factor(s)**

The pilot did not compensate for the crosswind during take-off.

#### **Safety Action(s)**

None.

#### **Safety Message and/or Safety Recommendation/s**

None.

#### **About this Report**

*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 desk top enquiries 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.*

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.

**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**