SOUTH AFRICAN CIVIL AVIATION AUTHORITY

Section/division **Accident and Incident Investigations Division** Form Number: CA 12-57

LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL

Reference Number	CA18/2/3/10463						
Classification	Accident	**Date**	19 June 2024		**Time**	1410Z	
Type of Operation	Training (Part 141)						
Location							
Place of Departure	Cape Town International Airport (FACT), Western Cape Province	Place of Intended Landing	Cape Town International Airport (FACT), Western Cape Province				
Place of Occurrence	Runway 19 at Cape Town International Airport (FACT)						
GPS Co-ordinates	Latitude	33º 58’17” S	Longitude	018º 36’15” E	Elevation	306ft	
Aircraft Information							
Registration	ZS-PIB						
Make; Model; S/N	Piper; PA-38-112 Tomahawk (Serial Number: 38-79A0322)						
Damage to Aircraft	Substantial		Total Aircraft Hours	176.4			
Pilot-in-command							
Licence Type	Student Pilot Licence (SPL)		Gender	Female	Age	21	
Licence Valid	Yes	Total Hours	129.2	Total Hours on Type	87.3		
Total Hours 30 Days	15.8		Total Flying on Type Past 90 Days	15.8			
People On-board	1 + 0	**Injuries**	0	**Fatalities**	0	**Other (on ground)**	0

What Happened

On Wednesday, 19 June 2024, a student pilot (SP) on-board a Piper PA-38-112 Tomahawk aircraft with registration ZS-PIB was on a solo navigational training flight from Cape Town International Airport (FACT) in the Western Cape province to Springbok (FASB) Airfield in the Northern Cape province with the intention to return to FACT. Visual meteorological conditions (VMC) by day prevailed at the time of the flight which was conducted under the provisions of Part 141 of the Civil Aviation Regulations (CAR) 2011 as amended.

The SP stated that a pre-flight inspection was conducted on the aircraft and no anomalies were found. The aircraft departed FACT at approximately 1214Z. Upon arrival at FASB, the SP conducted an uneventful touch-and-go landing and routed back to FACT. After reaching FACT at approximately 1410Z, the SP was granted clearance to land on Runway 19. During the landing roll, the SP lost directional control of the aircraft and it veered off to the left of the runway. The SP tried to recover the aircraft by applying the right rudder, but without success. The aircraft exited the runway and rolled onto the grass area where the nose gear strut collapsed. The aircraft came to rest on the grass area, about 7 metres (m) from the edge of the runway. The SP was not injured; however, she was taken to the hospital for medical observations.

The aircraft sustained substantial damage to the nose gear strut, propeller blades, lower engine cowling and right-wing tip during the accident sequence.

The accident occurred during daylight at Global Positioning System (GPS) determined to be 33º 58’17” South 018º 36’15” East at an elevation of 151 ft.

Figure 1: Arial view of FACT. (Source: Google Earth)

Figure 2: The aircraft at the accident site. (Source: Pilot)

The weather report in the table below was sourced from the South African Weather Service (SAWS), recorded for FACT on 19 June 2024 at 1400Z.

1. FACT 191400Z 17005KT 130V190 9999 FEW035 17/08 Q1022 NOSIG=

Wind Direction	320V190	Wind Speed	05 kt	Visibility	10km
Temperature	17°C	Cloud Cover	FEW	Cloud Base	3500 ft
Dew Point	08°C	QNH	1022 hPa		

Crosswind Component
(Source: e6bx.com/wind-components/)

The crosswind component at the time of the flight was calculated to be 3.83 knots from the right. A Piper PA-38-112 Tomahawk aircraft has a maximum crosswind velocity of 15 knots, demonstrated at full flaps setting. Based on the above, the pilot would have no challenge maintaining the runway centreline during a 3.83 knots crosswind condition.

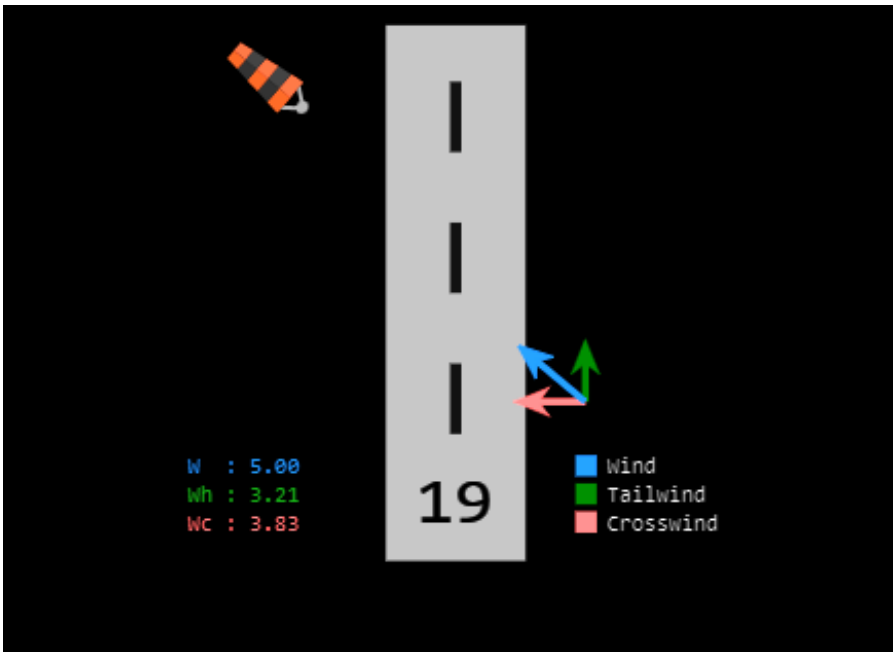

Figure 3: Crosswind component calculation. (Source: E6BX.com)

Aerodrome

FACT is a major airport in the Western Cape province with two runways. The asphalt-covered runways are orientated 01/19 which is 3 201m long and 61m wide, and 16/34 which is 1 701m long and 46m wide.

Requirements for a PPL – Aeroplane (Source: Civil Aviation Regulations)

61.03.1 *(1) An applicant for a PPL (Aeroplane) must –*

(a) be 17 years or older;

(b) hold a valid Class 1 or Class 2 medical certificate, issued in terms of Part 67;

(c) hold at least a valid restricted certificate of proficiency in radiotelephony (aeronautical);

(d) show evidence of holding a valid SPL, or having held within the previous 60 months, any of the following –

(i) a pilot licence (aeroplane) issued by a Contracting State;

(ii) a national pilot licence issued in terms of Part 62;

(e) have successfully completed the training as prescribed in Document 61 at an approved Part 141 ATO;

(f) have passed the theoretical knowledge examination as prescribed in Document SA-CATS 61; and

(2) An applicant for a PPL (Aeroplane) must have completed not less than 45 hours flight time as pilot of an aeroplane with a MCM in excess of 450 kg of which –

(a) at least 25 hours are dual instruction in aeroplanes; and

(b) at least 15 hours are accumulated in solo flight, of which at least five hours are cross-country flight time; which must include one triangular cross-country flight of at least 150 NM, on which at least one point must be not less than 50 NM from base.

61.02.7 DISCONTINUANCE OF FLIGHT TRAINING

Failure to make satisfactory progress after having flown solo

(1) A student pilot assessed in terms of section 2(5) of technical standard 61.02.5 who fails to show satisfactory progress shall undergo a flight assessment by the CFI of the ATO where he or she is receiving flight training.

(2) If the CFI cannot recommend solo flight for the student pilot, then the following shall apply:

(a) The student pilot shall be informed in writing that a potential safety risk has been identified and that CAR 61.02.7 may be brought into effect.

(b) A training program of not more than 3 hours dual flight instruction shall be designed and implemented to address the knowledge, skills and attitude of the student.

(c) Once the additional 3 hours of dual flight instruction are flown a recommendation must be made by the responsible flight instructor for continued flight training. If a recommendation cannot be made then the student must be referred for assessment by a DFE appointed for this purpose by the Director.

(3) At any point during flight training where the student pilot is assessed by the flight instructor to be a potential safety then the student pilot shall undergo a flight assessment by a DFE appointed for this purpose by the Director.

(4) If the DFE cannot recommend continued flight training for the student pilot, then the following shall apply:

(a) The student pilot shall be informed in writing that a potential safety risk has been identified and that CAR 61.02.7 may be brought into effect.

(b) A training program of not more than 3 hours dual flight instruction shall be designed and implemented to address the knowledge, skills and attitude of the student pilot.

(c) Once the additional 3 hours of dual flight instruction are flown a recommendation must be made by the responsible flight instructor for continued flight training. If a recommendation cannot be made then the student must be referred for assessment by a DFE appointed for this purpose by the Director.

(5) A student pilot who fails to be recommended for continued flight training shall undergo a flight assessment by a DFE appointed for this purpose by the Director.

(6) If the DFE cannot recommend continued flight training for the student, then the following shall apply:

(a) The student pilot shall be informed in writing that a potential safety risk has been identified and that all further flight training is to be suspended whilst awaiting the decision of the Director in terms of CAR 61.02.7. The student shall acknowledge receipt of the letter.

(b) The CFI shall inform the Director that flight training has been temporarily suspended.

(c) The CFI shall compile a report for the Director containing copies of—

(i) the student pilot's training file.

(ii) the progress reports.

(iii) the written letters advising that flight training may be discontinued and acknowledgement of receipt of these letters by the student pilot.

(iv) *the written letters advising that a potential safety risk has been identified and that all further flight training is to be suspended whilst awaiting the decision of the Director in terms of CAR 61.02.7. Acknowledgement of receipt of this letter by the student must also accompany the report.*

Findings

1. The student pilot (SP) was initially issued a Student Pilot Licence (SPL) by the South African Civil Aviation Authority (SACAA) on 9 March 2021 with an expiry date of 21 May 2025. The aircraft type was endorsed on her licence.

2. The SP had a Class 2 aviation medical certificate that was issued on 25 February 2021 with an expiry date of 25 February 2026 with no restrictions. The SP was adequately licensed and experienced to conduct the flight.

3. The SP was not on the integrated training programme; she exceeded 45 hours' flight time, which is a requirement in Part 61.03.1 of the CAR.

4. The aircraft had the Certificate of Airworthiness (C of A) that was issued by the SACAA on 26 August 2019 with an expiry date of 31 August 2024. The aircraft's Certificate of Registration (C of R) was issued to the present owner on 7 August 2017.

5. The last mandatory periodic inspection (MPI) of the aircraft was certified on 28 May 2024 at 4 568.24 airframe hours. The Certificate of Release to Service (CRS) was issued on 5 June 2023 at 4 568.24 airframe hours with an expiry date of 4 June 2025 or at 4 668.24 airframe hours, whichever comes first.

6. The aircraft maintenance organisation (AMO) that maintained the aircraft was issued an AMO Certificate by the SACAA on 26 July 2023 with an expiry date of 31 July 2024.

7. The approved training organisation (ATO) was issued an Approved Training Organisation Certificate by the Regulator (SACAA) on 25 January 2024 with an expiry date of 31 March 2029.

8. The ATO (school) did not discontinue the SP's training as per Part 61.02.7 of CAR.

9. The SP lost directional control of the aircraft during the landing roll on Runway 19 and the aircraft veered off to the left of the runway.

Probable Cause

Loss of directional control during the landing roll which resulted in the aircraft veering off to the left of the runway.

Contributing Factors

None.

Safety Action(s)
None.
Safety Recommendation or Message
1. It is recommended that the Director of Civil Aviation (DCA) conducts an oversight of the ATO, as well as assess the designated flight examiner's (DFE's) decision/action for not discontinuing training. 2. It is recommended that the DCA reviews the regulation in Part 61.02.7 as it should not be allowed that a student pilot flies for 129.2 under instruction without yet completing a Private Pilot Licence (PPL).
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
This report is produced without prejudice to the rights of the AIID, which are reserved.

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