



LIMITED ACCIDENT INVESTIGATION REPORT
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Reference Number		CA18/2/3/10131					
Classification	Accident	Date	28 February 2022	Time	16:30Z		
Type of Operation		Private (Part 94)					
Location							
Place of Departure		Private Airstrip Near Coligny, North West Province		Place of Intended Landing		Private Airstrip Near Coligny, North West Province	
Place of Accident		Private Airstrip Near Coligny					
GPS Co-ordinates		Latitude	S 26°22'20.27"	Longitude	E 26°11'43.62"	Elevation	4970ft
Aircraft Information							
Registration		ZU-SVA					
Model/Make		Savanna S (Serial Number: 12-10-54-0213)					
Damage to Aircraft		Substantial		Total Aircraft Hours		200.38	
Pilot-in-command							
Licence Valid		Yes		Gender		Male	
						Age 51	
Licence Type		National Pilot Licence (Aeroplane)					
Total Hours on Type		200		Total Flying Hours		220	
People On-board		1+0		Injuries		0	
				Fatalities		0	
				Other (On ground)		0	
What Happened							
<p>On Monday, 28 February 2022, a pilot on-board a Savanna S aircraft with registration ZU-SVA took off on a local flight from Oppaslaagte Farm private airstrip from Runway 15 in Coligny, North West province, with the intention to land back at the same take-off farm. The flight was conducted under visual meteorological conditions (VMC) by day and under the provisions of Part 94 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>The pilot stated that upon landing on Runway 15, the aircraft encountered a gust of wind from the right-side (of the aircraft) which caused him to lose directional control; the aircraft veered off to the left-side towards a field with vegetation. This was followed by a nose strut that broke off, as well as one of the propeller blades that broke off closer to the root. The pilot was not injured during the landing phase.</p>							

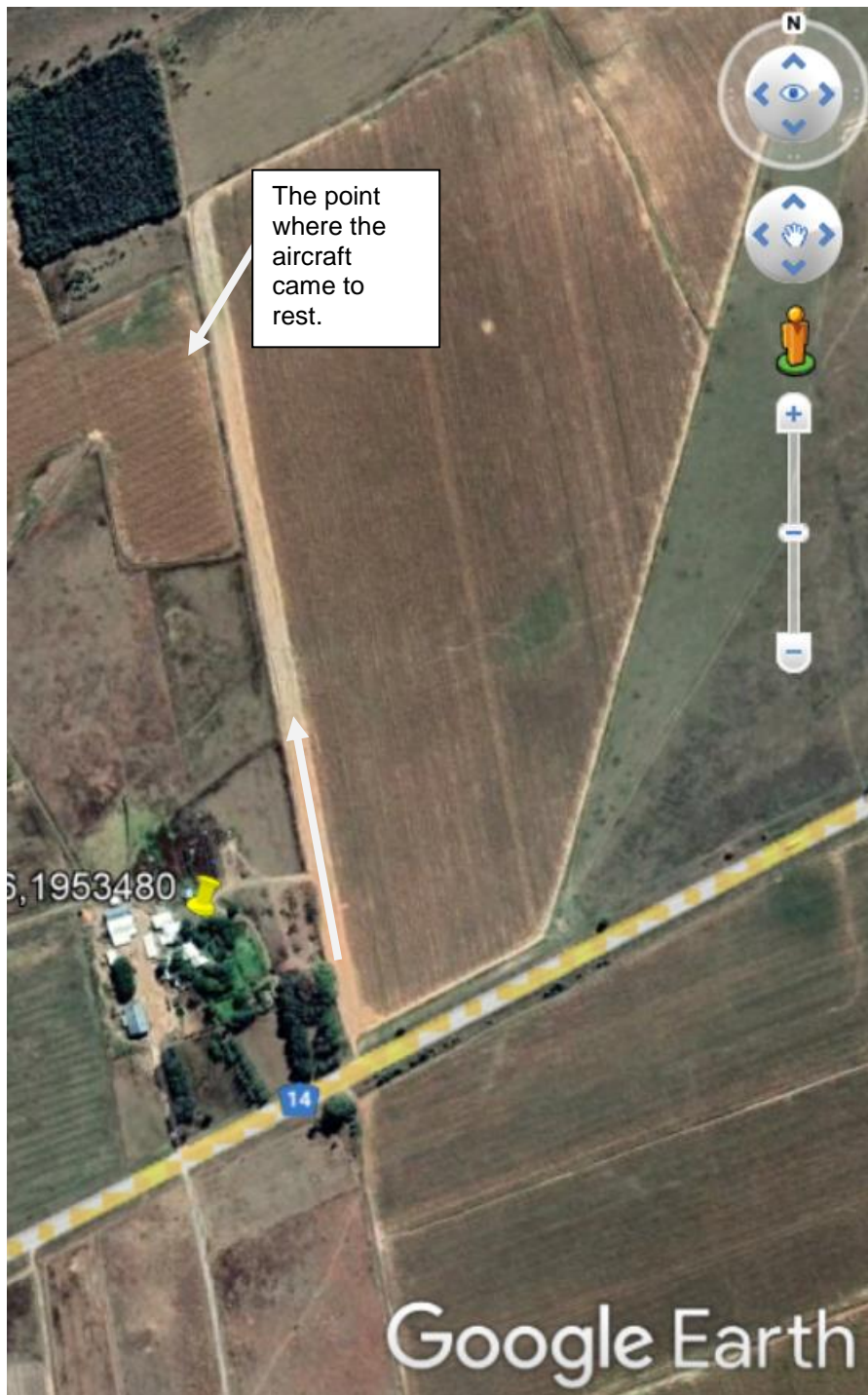


Figure 1: The white arrow shows the direction of landing and where the aircraft had come to a stop. (Source: Google Earth)



Figure 2: The aircraft at its resting position post-accident. (Source: Pilot)



Figure 3: Damage to the propeller and engine bay. (Source: Pilot)

What was found (Source: South African Weather Service [SAWS])

It is likely that the gust of wind experienced by the pilot was one of many rapid “burst of winds” from an outflow boundary of a thunderstorm. In Figure 4, a thunderstorm is circled; the thunderstorm was moving towards Oppaslaagte Farm area. The gusts of wind from the recorded data does not show strong winds. Unexpected rapid strong gusts of wind at intervals not readily recorded as well as thunderstorm activities could affect aircraft as far as 100km away. It is likely that the wind gust experienced by the aircraft was from the approaching storm from the north-west direction.

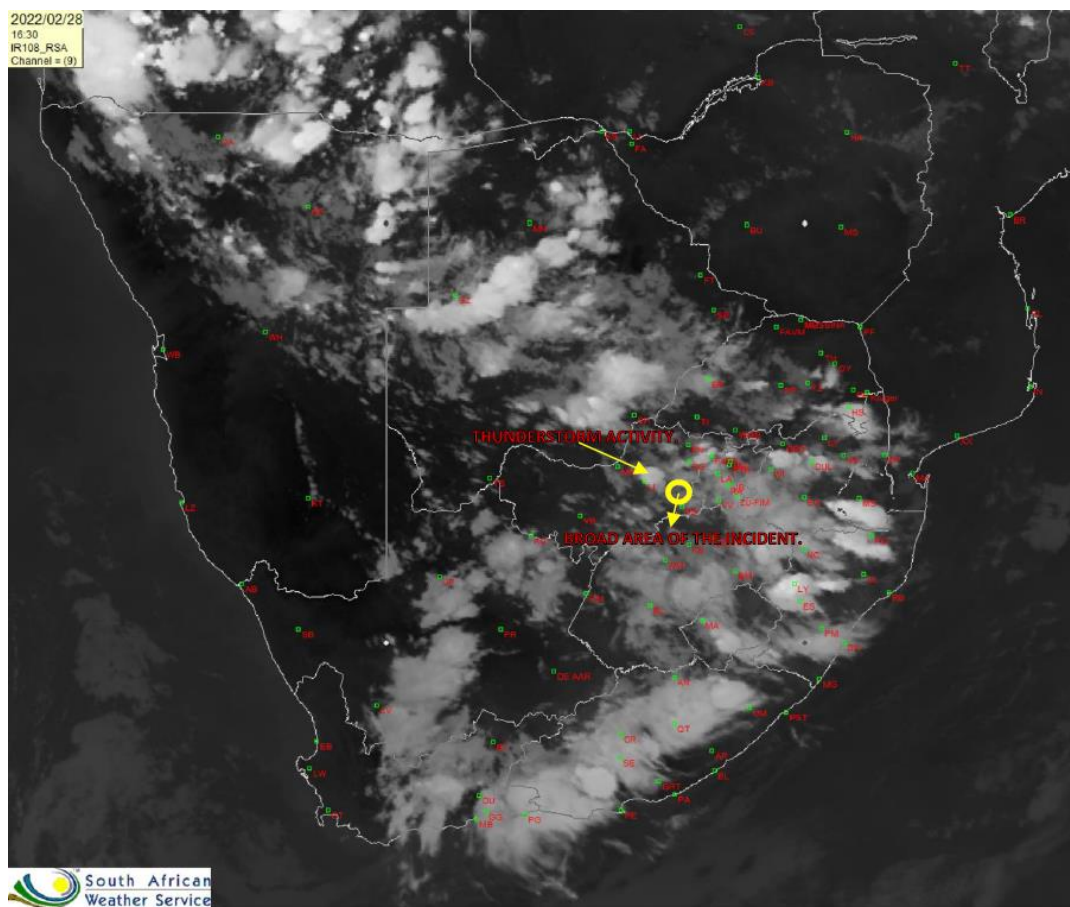


Figure 4: Infrared satellite imagery of the weather conditions around the time of accident. (Source: South African Weather Service)

Table 1: Weather report for Coligny area on 28 February 2022 at 16:30Z. (Source: South African Weather Service)

Wind Direction	280°	Wind Speed	9kts Gusting 15kts	Visibility	9999m
Temperature	26°C	Cloud Cover	CAVOK	Cloud Base	CAVOK
Dew Point	14°C	QNH	1022 hPa		

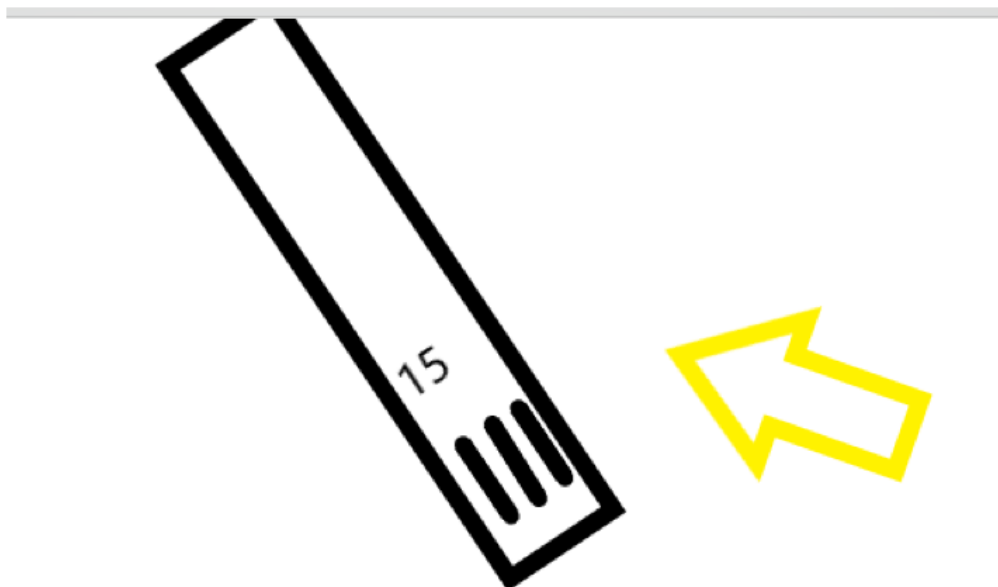


Figure 5: Wind component around the time of the accident.

According to the Pilot's Operating Handbook, the aircraft is rated for a 26-knot crosswind.

Probable cause:

It is likely that the pilot's approach for landing was unstable, which led to the pilot's loss of directional control. This resulted in a hard landing and the subsequent nose gear failure.

Safety Action/s

None.

Safety Message and/or Safety Recommendation/s

Pilots flying in gusty winds and crosswind conditions are advised to use the crab manoeuvre during approach by pointing the nose slightly into wind to stabilise the approach as recommended in standard practise.

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

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**