

**LIMITED OCCURRENCE INVESTIGATION REPORT – FINAL**

<b>Reference Number</b>	CA18/2/3/10429						
<b>Classification</b>	Accident	<b>Date</b>	1 March 2024	<b>Time</b>	1215Z		
<b>Type of Operation</b>	Private (Part 91)						
<b>Location</b>							
<b>Place of Departure</b>	O.R. Tambo International Airport (FAOR), Gauteng Province		<b>Place of Intended Landing</b>	Kalahari Gold Mine Airstrip, North West Province			
<b>Place of Occurrence</b>	Runway (RWY) 02 Kalahari Gold Mine Airstrip						
<b>GPS Co-ordinates</b>	<b>Latitude</b>	26° 10'20" S	<b>Longitude</b>	025° 13'59" E	<b>Elevation</b>	4 087 feet	
<b>Aircraft Information</b>							
<b>Registration</b>	ZS-TKI						
<b>Make; Model; S/N</b>	Beechcraft; BE20 (Serial Number: BB1805)						
<b>Damage to Aircraft</b>	Minor		<b>Total Aircraft Hours</b>	3954.6			
<b>Pilot-in-command</b>							
<b>Licence Type</b>	Commercial Pilot Licence (CPL) A		<b>Gender</b>	Male	<b>Age</b>	67	
<b>Licence Valid</b>	Yes	<b>Total Hours</b>	4 034.2	<b>Total Hours on Type</b>	90.6		
<b>Total Hours 30 Days</b>	20.3		<b>Total Flying on Type Past 90 Days</b>	37.3			
<b>People On-board</b>	1 + 5	<b>Injuries</b>	0	<b>Fatalities</b>	0	<b>Other (on ground)</b>	0
<b>What Happened</b>							
<p>On Friday, 1 March 2024, a pilot and five passengers on-board a Beechcraft BE20 aircraft with registration ZS-TKI took off on a private flight from O.R. Tambo International Airport (FAOR), Gauteng province, to Kalahari Gold Mine Airstrip in the North West 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. A flight plan was filed for the flight and an indemnity form was signed by the operator before the flight.</p> <p>The pilot reported that the pre-flight and take-off phases, as well as the route to Kalahari Gold Mine Airstrip proceeded as expected. Upon arrival and whilst overhead the airstrip, the pilot conducted an unmanned joining procedure as well as inspected the runway. He then elected to land on Runway (RWY) 02. During the landing roll, the aircraft jolted. The post-flight inspection of the aircraft revealed that the right-wing tip of the aircraft had impacted overgrown thorn bushes on the right edge of the runway. The aircraft sustained damage to the right-wing tip; no person was injured.</p> <p>The accident occurred during daylight at Global Positioning System (GPS) co-ordinates determined to be 26°10'20" South 025°13'59" East at an elevation of 4 087 feet.</p>							



**Figure 1:** The view of the accident site. (Source: Google Earth)

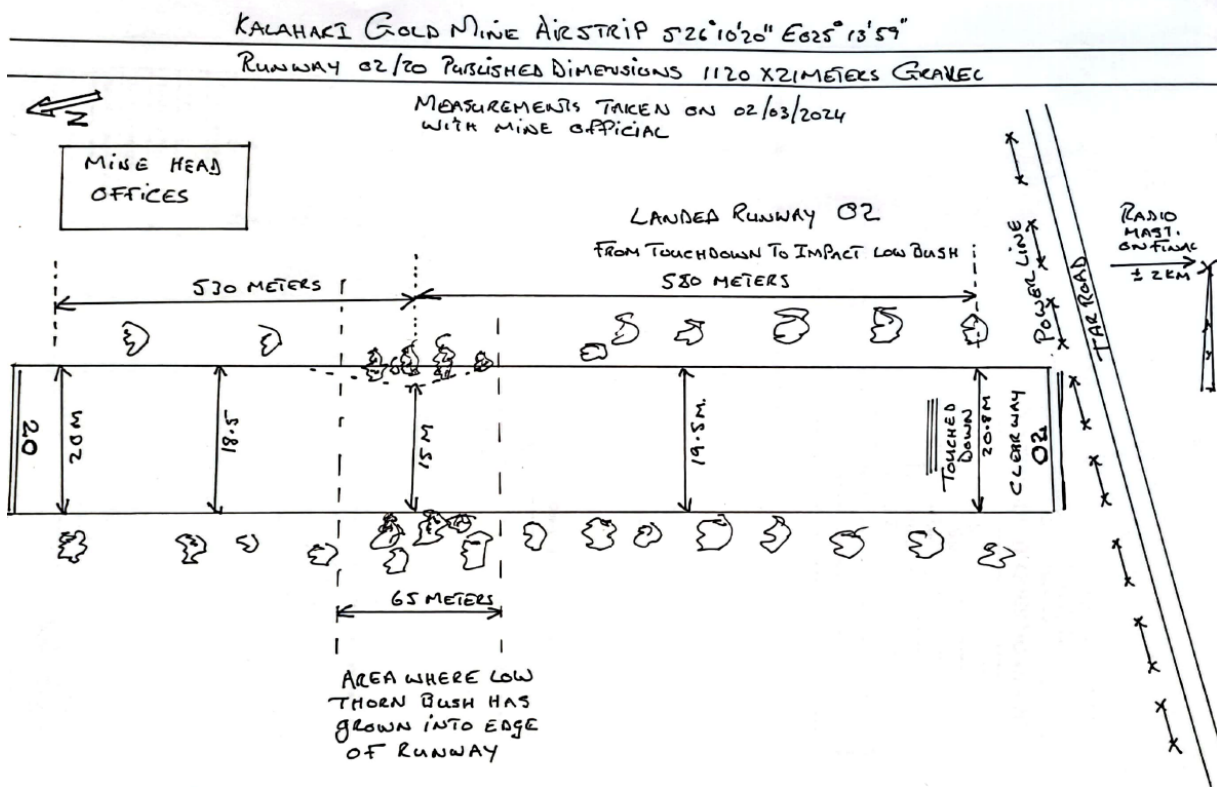


**Figure 2:** The damaged aircraft at the accident site. (Source: Pilot)





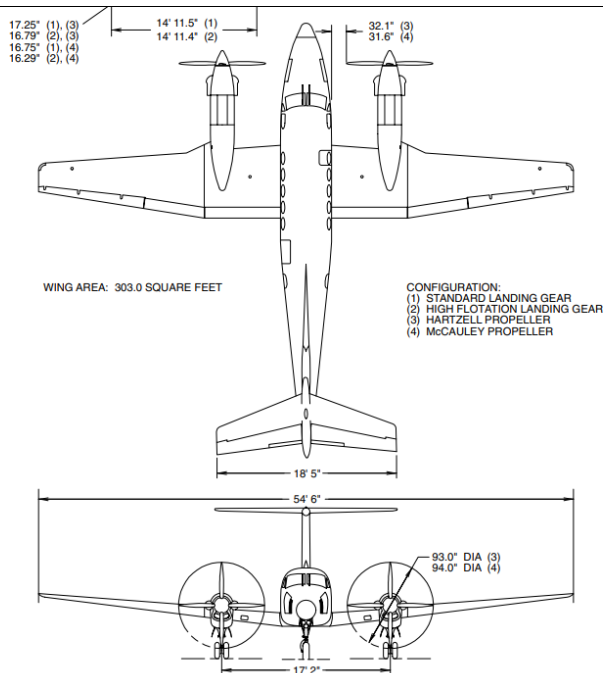
**Figure 3:** The thorn bushes the aircraft impacted at the edge of RWY02. (Source: Pilot)



**Figure 4:** The runway sketch. (Source: Pilot)

RWY 02 is unpaved (gravel) and is 1 120 metres (m) long and 21m wide, according to EasyPlan flight planning system.

The King Air BE20 wingspan is 16.6m (54' 4" ft), according to the Pilot's Operating Handbook (POH).



**Figure 5:** The aircraft dimensions. (Source: POH)

The weather report below was sourced from the South African Weather Service (SAWS) and was recorded for Mafikeng International Airport (FAMM) weather station on 1 March 2024 at 1200Z. FAMM is located 26 nautical miles (nm) north-east of the accident site.

FAMM 011200Z 26004KT 9999 SCT030 FEW080 31/11 Q1021 NOSIG=

Wind Direction	260°	Wind Speed	04 kt	Visibility	10km
Temperature	31°C	Cloud Cover	SCT	Cloud Base	3000 ft
Dew Point	11°C	QNH	1021 hPa		

## Findings

### The Pilot

1. The pilot was initially issued a Commercial Pilot Licence (CPL) Aeroplane on 23 March 2004. The licence was reissued on 1 June 2023 with an expiry date of 30 June 2024.
2. The pilot had a Class I aviation medical certificate that was issued on 1 June 2023 with an expiry date of 31 December 2023. The Class II aviation medical certificate was issued on 1 June 2023 with an expiry date of 30 June 2024, and with no restrictions. The pilot was adequately licensed and experienced to conduct the flight.

3. The pilot reported that he had flown charter flights to the airstrip previously with different operators and that he had signed an indemnity form with the airstrip manager before the flight.

#### Aircraft information

4. The aircraft had a Certificate of Airworthiness (C of A) that was initially issued on 14 June 2021. The C of A was renewed on 5 June 2023 with an expiry date of 30 June 2024. The aircraft's Certificate of Registration (C of R) was issued on 16 April 2021 to the present owner.
5. The last Phase 1 and 2 inspections on the aircraft were conducted and certified on 26 April 2023, and the Certificate of Release to Service (CRS) was issued on 26 April 2023 at 3 856.60 airframe hours. The next inspections which are Phases 3 and 4 were planned for 25 April 2024 or at 4 056.60 airframe hours, whichever comes first.
6. The aircraft was maintained by an aircraft maintenance organisation (AMO) with an AMO Certificate that was issued by the Regulator (SACAA) on 22 February 2023 with an expiry date of 28 February 2024.
7. The aircraft's right-wing tip impacted a series of thorn bushes with overgrow branches that extended to the right of the runway edge during the landing roll.

#### Runway information

8. The runway used was RWY 02, which is unpaved (gravel); it is 1 120m long and 21m wide, according to EasyPlan flight planning system.
9. Airfield management did not alert the pilot about the overgrown bushes during the signing of the indemnity form.
10. The weather was not a factor to this accident.

#### **Probable Cause**

It is likely that the aircraft landed more towards the right of the runway's centre which led to the right-wing tip impacting a series of thorn bushes on the right edge of RWY02 during the landing roll.

#### **Contributing Factors**

Improper pre-flight planning.

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

None.

#### **Safety Message**

None.

<p><b>About this Report</b></p> <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 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.</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>
<p><b>Purpose</b></p> <p><i>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.</i></p>
<p><b>Disclaimer</b></p> <p><i>This report is produced without prejudice to the rights of the AIID, which are reserved.</i></p>

**This report is issued by:**

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