

PRELIMINARY ACCIDENT REPORT

Accident and Incident Investigations Division

Accident
- Preliminary Report -
AIID Ref No: CA18/2/3/10633



Figure 1: File picture of ZT-RPM helicopter.

(Source: https://www.surfacezero.com/g503/data/576/IMG_2936m_8003.jpg)

Description:

On Tuesday afternoon, 3 February 2026, a flight instructor (FI) and a pilot (in training) on-board a Bell 230 twin-engine helicopter registered ZT-RPM were conducting a type-conversion training flight from Rand Airport (FAGM) in Gauteng province with the intention to return to the same airport. Earlier on the same day, the pair conducted the first training sortie and, thereafter, returned to FAGM where they landed safely. During the second training sortie, the helicopter routed to Kromvlei helicopter general flying area (GFA) near Panorama Airfield in Alberton, Gauteng province. The FI demonstration Category A exercise (simulated single-engine failure) at approximately 200 feet (ft) above ground level (AGL) before he allowed the pilot to execute the exercise as demonstrated. At approximately 45 knots (kt), the pilot raised the nose to flare the helicopter, but it (helicopter) kept on descending uncontrollably whilst spinning to the right. The FI applied left anti-torque pedal and power to regain control of the helicopter, but without success. The helicopter impacted the ground hard with the landing gears and bounced. Subsequently, it rolled to the left and the main rotor blades struck the ground. The helicopter was substantially damaged. The FI and the pilot were not injured.

Occurrence Details

Reference Number : CA18/2/3/10633
Occurrence Category : Accident (Category 2)
Type of Operation : Training (Part 141)
Name of Operator : Capital Air
Helicopter Registration : ZT-RPM
Helicopter Make and Model : Bell Helicopter Company; B230
Nationality : South African
Registration Marks : ZT-RPM
Place : Kromvlei helicopter general flying area (GFA)
Date and Time : 3 February 2026 at 1130Z
Injuries : None
Damage : Substantial

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.

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.

Investigation Process

The Accident and Incident Investigations Division (AIID) was notified of the occurrence involving a Bell 230 helicopter which occurred at Kromvlei helicopter general flying area (GFA) in Alberton, Gauteng province, on 3 February 2026 at 1130Z. The occurrence was classified as an accident according to the CAR 2011 Part 12 and the International Civil Aviation Organisation (ICAO) STD Annex 13 definitions. Notifications were sent to the States of Registry, Operator, and Design and Manufacturer in accordance with the CAR 2011 Part 12 and the ICAO Annex 13 Chapter 4. The States did not appoint an accredited representative and/or advisor. Investigators were dispatched to the accident site. The AIID will lead the investigation and issue the final report of this accident in accordance with the CAR 2011 Part 12 and International Civil Aviation Organisation Annex 13.

The information contained in this preliminary report is derived from the information gathered during the on-going investigation into the occurrence. Later, an interim or final report may contain altered information in case new evidence is found during the on-going investigation that requires changes to the information depicted in this report.

The AIID reports are made available to the public at:

<https://www.caa.co.za/industry-information/accidents-and-incidents/>

Notes:

1. *Whenever the following words are mentioned in this report, they shall mean the following:*

Accident — this investigated accident

Helicopter — the Bell 230 involved in this accident

Investigation — the investigation into the circumstances of this accident

Pilot — the pilot involved in this accident

Report — this accident report

2. *Photos and figures used in this report were taken from different sources and may have been adjusted from the original for the sole purpose of improving clarity of the report. Modifications to images used in this report were limited to cropping, magnification, file compression; or enhancement of colour, brightness, contrast; or addition of text boxes, arrows, or lines.*

Disclaimer

This report is produced without prejudice to the rights of the South African Civil Aviation Authority (SACAA), which are reserved.

Table of Contents

Occurrence Details	2
Purpose of the Investigation	2
Investigation Process.....	2
Disclaimer	3
Contents Page	4
Abbreviations	5
1. FACTUAL INFORMATION	6
1.1. History of Flight	6
1.2. Injuries to Persons	8
1.3. Damage to Helicopter	8
1.4. Other Damage	8
1.5. Personnel Information.....	8
1.6. Helicopter Information.....	9
1.7. Meteorological Information	11
1.8. Aids to Navigation	11
1.9. Communication	12
1.10. Aerodrome Information	12
1.11. Flight Recorders	12
1.12. Wreckage and Impact Information.....	12
1.13. Medical and Pathological Information.....	13
1.14. Fire	13
1.15. Survival Aspects	14
1.16. Tests and Research.....	14
1.17. Organisational and Management Information	14
1.18. Additional Information	14
1.19. Useful or Effective Investigation Techniques.....	15
2. FINDINGS	15
3. ON-GOING INVESTIGATION	16
4. SAFETY RECOMMENDATION/S	16
5. APPENDICES.....	17

Abbreviation	Description
°	Degrees
°C	Degrees Celsius
AIID	Accident and Incident Investigations Division
AMO	Aircraft Maintenance Organisation
ATPL	Airline Transport Pilot Licence
C of A	Certificate of Airworthiness
C of R	Certificate of Registration
CPL	Commercial Pilot Licence
CRS	Certificate of Release to Service
CVR	Cockpit Voice Recorder
EMS	Emergency Medical Services
FAGM	Rand Airport
FDR	Flight Data Recorder
Ft	Feet
GPS	Global Positioning System
hPa	Hectopascal
Kt	Knots
LDP	Landing Decision Point
LTE	Low Tail Rotor Effect
M	Metres
METAR	Meteorological Aerodrome Report
MPI	Mandatory Periodic Inspection
OEI	One Engine Inoperative
POH	Pilot's Operating Handbook
QNH	Altitude Above Mean Sea Level
USA	United States of America
SACAA	South African Civil Aviation Authority
SAWS	South African Weather Service
SB	Service Bulletin
SHP	Shaft Horsepower
SID	Supplementary Inspection Documents
SL	Service Letter
TDP	Take-off Decision Point
TSI	Technical Service Instructions
VMC	Visual Meteorological Conditions
VML	Valid only with correction for defective distant, intermediate and near vision
Z	Zulu (Term for Universal Co-ordinated Time - Zero Hours Greenwich)

1. FACTUAL INFORMATION

1.1. History of Flight

- 1.1.1 On Tuesday afternoon, 3 February 2026, a flight instructor (FI) and a pilot (in training) on-board a Bell 230 helicopter registered ZT-RPM were conducting a type-conversion training flight from Rand Airport (FAGM) in Gauteng province with the intention to return to the same airport when the accident occurred. Visual meteorological conditions (VMC) 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.
- 1.1.2 The FI stated that the helicopter had a total of 600 litres of Jet A1 fuel in the tanks during the pre-flight inspection. The pair conducted the first training sortie from FAGM which took approximately 1 hour after which they returned to FAGM; the pair took a 1-hour break before the second training sortie. At approximately 1110Z, they took off again and routed to Kromvlei helicopter general flying area (GFA) near Panorama Airfield in Alberton, Gauteng province. The FI stated that upon reaching the helicopter GFA, he demonstrated confined area operations, simulated slope landings and simulated engine failure exercises.
- 1.1.3 The last exercise demonstrated to the pilot was a Category A simulated single-engine failure at 200 feet (ft) above ground level (AGL). The pilot was allowed to execute the exercise as shown. At approximately 45 knots (kts), the pilot raised the nose to flare the helicopter, but it (helicopter) kept on descending uncontrollably whilst spinning to the right. The FI engaged the left anti-torque pedal and power to regain control of the helicopter, but without success. The helicopter impacted the ground hard with the landing gears and bounced. Subsequently, it rolled to the left and the main rotor blades struck the ground. A post-impact fire ensued and the pilot extinguished it. The Emergency Medical Services (EMS) were notified of the accident and the City of Ekurhuleni medical personnel and FAGM Aircraft Rescue and Firefighting (ARFF) team swiftly responded to the scene. The helicopter was substantially damaged. The FI and the pilot were not injured.
- 1.1.4 The accident occurred at Kromvlei helicopter GFA in Alberton, Gauteng province, at Global Positioning System (GPS) co-ordinates determined as S26°21'.38.5'' E28°04'.43.8'' at an elevation of 4 970 feet (ft).

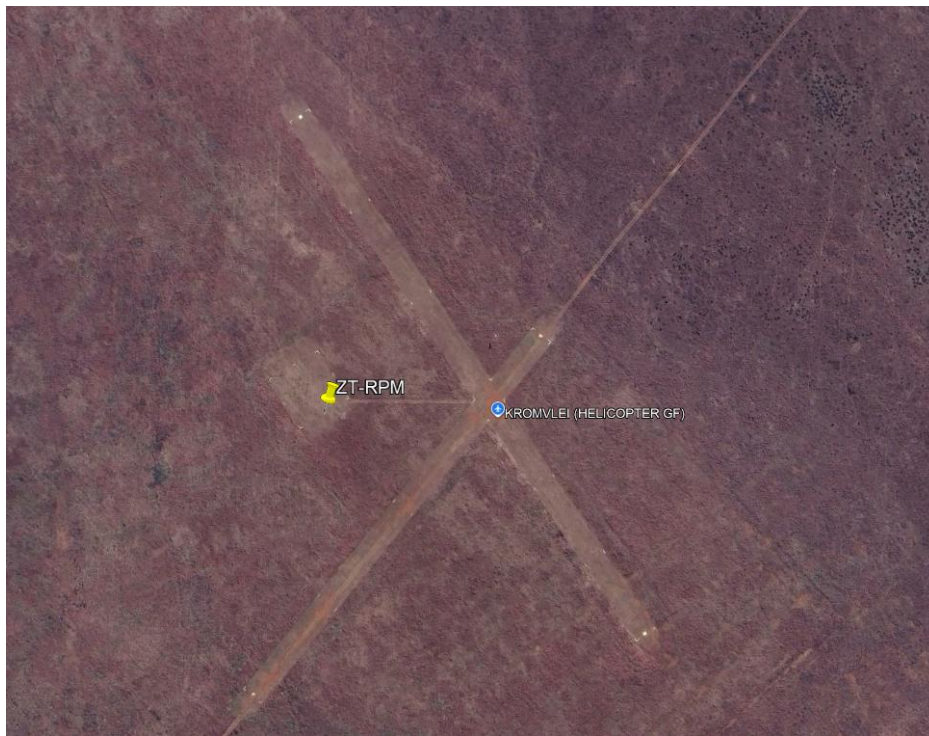


Figure 2: An aerial view of the approximate area where the accident occurred (yellow pin).
(Source: Google Earth)



Figure 3: The helicopter at the accident site.

1.2. Injuries to Persons

Injuries	Pilot	Crew	Pass.	Total On-board	Other
Fatal	-	-	-	-	-
Serious	-	-	-	-	-
Minor	-	-	-	-	-
None	2	-	-	2	-
Total	2	-	-	2	-

Note: Other means people on the ground.

1.3. Damage to Helicopter

1.3.1. The helicopter was substantially damaged.



Figure 4: The helicopter with the broken tail boom.

1.4. Other Damage

1.4.1. None.

1.5. Personnel Information

1.5.1 Flight Instructor (FI)

Nationality	South African	Gender	Male	Age	76
Licence Type	Airline Transport Pilot Licence (ATPL)				
Licence Valid	Yes	Type Endorsed	Yes		
Ratings	Instrument and Instructor ratings (H)				
Medical Expiry Date	28 February 2026				
Restrictions	None				
Previous Accidents	None				

Note: Previous accidents refer to past accidents the pilot was involved in, when relevant to this accident.

Flying Experience:

Total Hours	23 956.5
Total Past 24 Hours	1.0
Total Past 7 Days	7.6
Total Past 90 Days	41.8
Total on Type Past 90 Days	2.7
Total on Type	208.3

- 1.5.2 The FI had an Airline Transport Pilot Licence (ATL). He had fixed wing aircraft and helicopter endorsements in his licence. The FI was also a designated flight examiner (DFE) on helicopters. The FI completed his conversion to the Bell 230 model in March 2017 and, later, acquired the instructor rating on the helicopter type.

Pilot

Nationality	South African	Gender	Male	Age	33
Licence Type	Commercial Pilot Licence (CPL)				
Licence Valid	Yes	Type Endorsed	No		
Ratings	Instrument rating (H)				
Medical Expiry Date	31 May 2026				
Restrictions	None				
Previous Accidents	None				

Note: Previous accidents refer to past accidents the pilot was involved in, when relevant to this accident.

Experience:

Total Hours	2 399.4
Total Past 24 Hours	1.8
Total Past 7 Days	1.8
Total Past 90 Days	1.8
Total on Type Past 90 Days	1.8
Total on Type	1.8

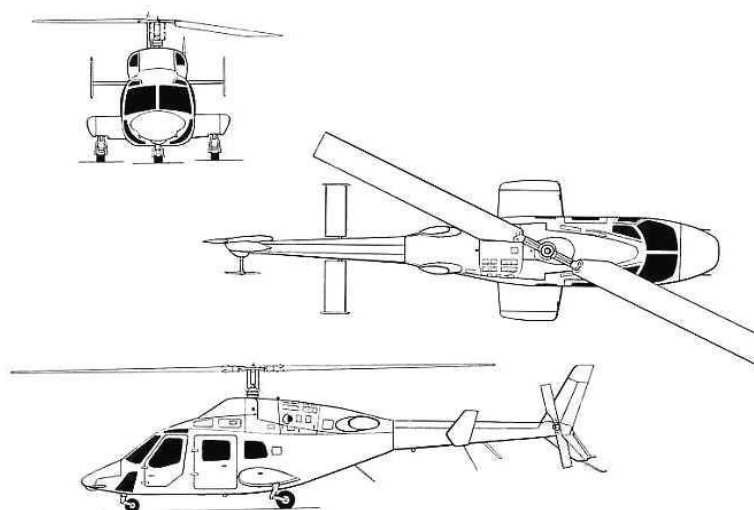
- 1.5.3 The pilot had a Commercial Pilot Licence (CPL) that was initially issued by the Regulator on 13 July 2023. The licence was reissued on 12 December 2025 with an expiry date of 30 November 2026. He had a helicopter endorsement in his licence. The pilot was in the process of undertaking his conversion to the Bell 230 model during the accident flight.

1.6 Helicopter Information

- 1.6.1 Helicopter Description (Source: Pilot's Operating Handbook [POH])

The Bell 230 helicopter is a twin-engine helicopter with retractable landing gears manufactured by Bell Helicopter Textron, based in the United States of America (USA). The helicopter is powered by two 700 shaft horsepower (shp) Allison 250-C30-G2 turboshaft engines driving advanced two-blade rotors. The helicopter is also certified for

Category A operations, meaning that if one engine were to fail during take-off, the helicopter would continue to fly with the remaining engine.



Airframe:

Manufacturer/Model	Bell Helicopters Textron/B230	
Serial Number	23033	
Year of Manufacture	1995	
Total Airframe Hours (At Time of Accident)	1 945.1	
Last Inspection (Date & Hours)	2 October 2025	1 929.7
Airframe Hours Since Last Inspection	15.4	
CRS Issue Date	19 November 2025	
C of A (Issue Date & Expiry Date)	19 December 2025	18 December 2026
C of R (Issue Date) (Present Owner)	21 February 2018	
Operating Category	Training (Part 141)	
Type of Fuel Used	Jet A1	
Previous Accidents	None	

Note: Previous accidents refer to past accidents the helicopter was involved in, when relevant to this accident.

Engine 1:

Manufacturer/Model	Allison / 250-C30S
Serial Number	CAE-898270
Part Number	250-C30G/2
Hours Since New	1 945.2
Hours Since Overhaul	Time between overhaul (TBO) not yet reached

Engine 2:

Manufacturer/Model	Allison / 250-C30S
Serial Number	CAE-898271
Part Number	250-C30G/2
Hours Since New	1 945.2
Hours Since Overhaul	TBO not yet reached

TBO interval is 3 000 hours.

- 1.6.2 The last 100-hour mandatory periodic inspection (MPI) of the helicopter was conducted on 2 October 2025 at 1 929.7 total airframe hours. The Certificate of Release to Service (CRS) was issued on 19 November 2025 at 1 929.7 airframe hours with an expiry date of 19 November 2026 or at 2 080.5 airframe hours, whichever comes first.
- 1.6.3 The aircraft maintenance organisation (AMO) which performed the last MPI was issued an AMO Certificate on 22 May 2025 with an expiry date of 31 May 2026.
- 1.6.4 Examination of the helicopter maintenance records at the operator's facility indicated that all applicable Service Letters (SLs), Airworthiness Directives (ADs), Service Bulletins (SBs), Technical Service Instructions (TSIs) and Supplementary Inspection Documents (SIDs) were complied with during maintenance activities.

1.7 Meteorological Information

- 1.7.1 The official weather report was obtained from the South African Weather Service (SAWS). The weather information entered in the table below was recorded at 1000Z by the O.R. Tambo International Airport (FAOR) Automatic Weather Station (AWS) on 3 February 2026. FAOR AWS is located 16 nautical miles (nm) from the accident site.

Wind Direction	310°	Wind Speed	7kt	Visibility	9999m
Temperature	25°C	Cloud Cover	SCT	Cloud Base	3500m
Dew Point	15°C	QNH	1025hPa		

1.8 Aids to Navigation

- 1.8.1 The helicopter was equipped with standard navigational equipment as approved by the Regulator (SACAA). There were no records indicating that the navigational equipment was unserviceable prior to the flight.

1.9 Communication

1.9.1 The helicopter was equipped with a standard communication system as approved by the Regulator. There were no recorded defects with the communication system prior to the flight.

1.10 Aerodrome Information

1.10.1 The accident occurred at Kromvlei helicopter GFA near Panorama Airfield in Alberton, Gauteng province, at GPS co-ordinates determined as S26°21'.38.5'' E28°04'.43.8'', at an elevation of 4 970ft.

Aerodrome Location	Alberton, Gauteng Province
Aerodrome Name	Panorama Airfield
Aerodrome Status	Unlicensed
Aerodrome GPS coordinates	26°19'31.03" South, 28°04'03.03" East
Aerodrome Elevation	5024ft
Runway Headings	02/20
Dimensions of Runway Used	1000m x 30m
Heading of Runway Used	None
Surface of Runway Used	Grass
Approach Facilities	None
Radio Frequency	124.4-MHz

1.11 Flight Recorders

1.11.1 The helicopter was neither equipped with a flight data recorder (FDR) or a cockpit voice recorder (CVR), nor was it required by regulation to be fitted to the helicopter type.

1.12 Wreckage and Impact Information

1.12.1 The accident occurred at the helicopter general flying area (GFA) near Alberton, approximately 1.3 kilometres from Panorama Airfield. All major components were present at the site, which indicated that nothing of significance had broken off from the helicopter prior to the first impact. The helicopter impacted the ground hard with the main landing gears/wheels and rolled to the left. The main landing gears were substantially damaged, and the propeller blades severed the tail boom. Both engines remained attached to the airframe; the cockpit cabin area and the windshield also remained intact. All doors remained attached to the airframe. The bladder fuel tanks contained sufficient Jet A1 fuel after the accident.



Figure 5: The damaged left main wheel.



Figures 6: Witness marks impressed by the tail rotor.

1.13 Medical and Pathological Information

1.13.1 Not applicable.

1.14 Fire

1.14.1 A post-impact fire ensued after the accident; the pilot used the helicopter's portable fire extinguisher to douse it.



Figures 7: Burnt vegetation at the accident site.

1.15 **Survival Aspects**

1.15.1 The accident was considered survivable as the cockpit cabin area had remained intact after the accident.

1.16 **Tests and Research**

1.16.1 To be discussed in the final report.

1.17 **Organisational and Management Information**

1.17.1 This was a training flight conducted under the provisions of Part 141 of the CAR 2011, as amended.

1.17.2 The approved training organisation (ATO) had an ATO Certificate that was issued by the Regulator on 21 January 2026 with an expiry date of 28 February 2027.

1.17.3 The ATO had an Operations Specifications Certificate that was issued by the Regulator on 28 January 2026 with an expiry of 28 February 2026. The accident helicopter (ZT-RPM) was listed on the Operations Specifications Certificate.

1.18 **Additional Information**

1.18.1 None.

1.19 Useful or Effective Investigation Techniques

1.19.1 None.

2 FINDINGS

2.1 General

From the available evidence, the following preliminary findings were made with respect to this accident. These shall not be read as apportioning blame or liability to any organisation or individual.

To serve the objective of this investigation, the following sections are included in the conclusions heading:

- **Findings** — are statements of all significant conditions, events, or circumstances in this accident. The findings are significant steps in this accident sequence, but they are not always causal or indicate deficiencies.

2.2 Findings

Personnel

2.2.1 The flight instructor (FI) was initially issued an Airline Transport Pilot Licence (ATPL) by the Regulator (SACAA) on 29 May 1980. The licence was reissued on 19 December 2025 with an expiry date of 31 July 2026.

2.2.2 The FI had a Class 1 aviation medical certificate that was issued on 21 August 2025 with an expiry date of 28 February 2026. The FI had a restriction to wear suitable corrective lenses for distant and near vision. The FI had the helicopter type endorsement in his licence.

2.2.3 The FI had accumulated a total of 23 956.5 flying hours of which 208.3 hours were accrued on the helicopter type at the time of the accident.

2.2.4 The pilot had a Commercial Pilot Licence (CPL) that was initially issued by the Regulator on 13 July 2023. The licence was reissued on 12 December 2025 with an expiry date of 30 November 2026.

2.2.5 The pilot had a Class 1 aviation medical certificate that was issued on 14 May 2025 with an expiry date of 31 May 2026. The pilot had no restrictions listed in his medical certificate.

2.2.6 The pilot had accumulated a total of 2 399.4 flying hours of which 1.8 hours were on the helicopter type; the hours were logged during training sorties conducted on the day of the accident.

Helicopter

2.2.7 The last 100-hour mandatory periodic inspection (MPI) of the helicopter was certified on 18 December 2024 at 3 704.7 total airframe hours. The Certificate of Release to Service (CRS) was issued on 18 December 2024 at 3 704.7 airframe hours with an expiry date of 17 December 2025 or at 3 804.7 airframe hours, whichever comes first.

2.2.8 The aircraft maintenance organisation (AMO) which performed the last MPI was issued an AMO Certificate on 19 November 2024 with an expiry date of 30 November 2025.

2.2.9 The helicopter had a valid Certificate of Airworthiness (C of A) that was initially issued by the Regulator on 6 October 2020. The latest C of A had an expiry date of 18 December 2026.

2.2.10 The Certificate of Registration (C of R) was issued to the present owner on 28 July 2025.

2.2.11 Examination of the helicopter maintenance records at the operator's facility indicated that all applicable Service Letters (SLs), Airworthiness Directives (ADs), Service Bulletins (SBs), Technical Service Instructions (TSIs) and Supplementary Inspection Documents (SIDs) were complied with during maintenance activities.

2.2.12 The operator had an Operations Specifications Certificate that was issued by the Regulator on 31 October 2024. The accident helicopter (ZT-RPM) was listed in the Operations Specifications Certificate.

3 ON-GOING INVESTIGATION

3.1 The AIID investigation is on-going, and the investigators will investigate other aspects of this accident which may or may not have safety implications.

4 SAFETY RECOMMENDATIONS

4.1 General

The safety recommendations listed in this report are proposed according to paragraph 6.8 of Annex 13 to the Convention on International Civil Aviation and are based on the conclusions listed in heading 3 of this report. The AIID expects that all safety issues

identified by the investigation are addressed by the receiving States and organisations.

4.2 Safety Recommendation/s

4.2.1 None.

5 APPENDICES

5.1 None.

This report is issued by:

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