SOUTH AFRICAN CIVIL AVIATION AUTHORITY

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

LIMITED INCIDENT INVESTIGATION REPORT

Reference Number	CA18/3/2/1369					
Classification	Serious Incident	**Date**	3 September 2021	**Time**	0730Z	
Type of Operation	Private (Part 91)					
Location						
Place of Departure	East London Airport (FAEL), Eastern Cape Province		Place of Intended Landing	Brown's Landing in Morgan Bay, Eastern Cape Province		
Place of Incident	Near Kei River					
GPS Co-ordinates	Latitude	S 32º 43' 19.6"	Longitude	E 028º 18' 53.5"	Elevation	250ft
Aircraft Information						
Registration	ZS-HOY					
Model/Make	Eurocopter EC 130 B4					
Damage to Aircraft	Minor		Total Aircraft Hours	2 427		
Pilot-in-command						
Licence Type	Private Pilot Licence (PPL)		Gender	Male	Age	65
Licence Valid	Yes					
Total Hours on Type	225		Total Flying Hours	4933		
People on board	1+0	Injuries 0	Fatalities	0	Other (on ground)	0

What Happened

On 3 September 2021 at approximately 0730Z, a Eurocopter EC 130 B4 helicopter with registration marking ZS-HOY was engaged in a private flight when the incident occurred. The pilot on-board the helicopter took off from East London Airport (FAEL) in the Eastern Cape province with the intention to land at Brown's Landing in Morgan Bay in the Eastern Cape. A pre-flight inspection was conducted and was followed by an uneventful take-off. 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.

The helicopter took off and routed north-east to the intended destination, flying close to the coastline. Upon approaching Kei River whilst flying approximately 300 feet (ft) above mean sea level (AMSL), the pilot noted a set of power lines that spanned across his flight path, which were

below the aircraft's path level. However, he missed noting another set of power lines which also spanned across his flight path but higher. The power lines above the pilot's flight path caught him by surprise. To evade colliding with the power lines, the pilot pulled the cyclic controls and the collective control up to pitch up the helicopter's nose. However, the helicopter made contact with the power lines with its lower part of the tail section. According to the field elevation reference as on Google Maps, the highest peak of the field elevation around the incident site is approximately 250ft above mean sea level (AMSL). The helicopter was flying at a height of 50ft above ground level (AGL). It is likely that the electrical power lines were at a height of 50ft (AGL) hence the helicopter collided with them as it was flying at the same height.

The pilot continued with the flight to the intended destination where he landed safely. After a complete shutdown of the electrical system and during the walk-around, the pilot noticed that the helicopter sustained minor damage on the fenestron fairing's lower fin. No other damage was observed on the fuselage. The pilot did not sustain any injuries during this incident.

Figure 1: The helicopter fenestron damage following the incident. (Source: Pilot)

The pilot had a Private Pilot Licence for both fixed wing aeroplanes and helicopters, issued by the Regulator (SACAA). The pilot's helicopter licence was issued on 1 July 2021 with an expiry date of 30 September 2023. His medical certificate was issued by the Regulator with Class 2 and Class 4 on 14 June 2021 with an expiry date of 30 June 2022 for Class 2, and an expiry date of 30 June 2024 for Class 4. The helicopter type was endorsed on the pilot's licence. The pilot is qualified to conduct helicopter operations and is also knowledgeable of the surrounding area where the incident occurred.

Subpart 91.06.32 of CAR Part 91 reads:

Except when necessary for taking off, or landing, or except with prior written approval of the Director, no aircraft when flown elsewhere than specified in paragraph (a), shall be flown at a height less than 500ft above the ground or water, unless the flight can be made without hazard or nuisance to persons or property on the ground or water and the PIC operates at a height in a manner that allows safe operation in the event of an engine failure. The pilot operated the helicopter at the height below 500ft AGL and collided with obstacles which were above his flight path.

Probable Cause

The helicopter collided with electrical power lines while flying at low level at a height of 50ft AGL.

Contributing Factors

Disregard/non-adherence to safe flying conditions as stipulated in the regulatory procedures. The pilot flew the helicopter at a low height above ground level with obstacles above his flight path.

Safety Action/s

None.

Safety Message and/or Safety Recommendation/s

Private helicopter operator in remote areas must ensure to always adhere to safe flying conditions despite their knowledge of their surrounding area or flight path.

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
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This report is issued by:

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