

INTERIM STATEMENT

Accident and Incident Investigations Division

Accident
Interim Statement -
AIID Ref No: CA18/2/3/10072



Figure 1: The file picture of the ZU-EHW gyrocopter. (Source: www.surfacezero.com [photo album])

Description:

On 10 November 2021, a pilot on-board a gyrocopter with registration ZU-EHW was engaged in a solo training flight towards the aircraft type conversion rating when the accident occurred. The eyewitness (instructor) reported that the pilot executed the first circuit approach, followed by a go-around, which progressed as expected. During the second circuit whilst on the downwind leg, the pilot conducted his downwind checks, thereafter, the gyrocopter yawed sharply to the left before it side-slipped forward. According to the instructor, this action was induced by a possible aggressive input of the left rudder at full power setting during the flight. Subsequently, the gyrocopter tilted to the right, tumbled and lost height before it crashed in the bush. The instructor ran towards the location where the gyrocopter had crashed, which was approximately 500 metres from the runway threshold. The gyrocopter was found facing 248° south-west in its resting position.

NOTE

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 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.***

This CA18/2/3/10072 interim statement gives a brief account of the progress of the investigation and should be read in conjunction with the preliminary report, reference number CA18/2/3/10072 that was published on 20 December 2021.

This interim statement is released in accordance with Standard 6.6 of the International Civil Aviation Organisation (ICAO) Annex 13 and CAR Part 12.05.1(7).

The final report may contain altered information in case new evidence becomes available during the on-going investigation.

Any person who has information concerning this accident should contact the Accident and Incident Investigations Division (AIID) on AIIDinbox@caa.co.za

Investigations process:

The occurrence was categorised as an accident and the AIID has assigned an Accident Investigation File Number CA18/2/3/10072 to this investigation.

The AIID appointed the investigation team, led by the investigator-in-charge (IIC). The investigation authorities, being the States of Operator/Registry and/or Design, were notified of the accident; however, they did not assign accredited representatives or advisers/experts to this investigation. In addition, the State of Operator did not assign an adviser to the IIC. The AIID is leading the investigation and will issue the final report.

The AIID reports are made available to the public at:

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

Disclaimer:

This interim statement is produced without prejudice to the rights of the SACAA, which are reserved.

Interim Statement

Since the release of the preliminary report on 20 December 2021, the investigation has uncovered the following:

1. The possibility of unintended left rudder inputs, which were likely to have resulted in the aggressive and sudden left yaw of the gyrocopter.
2. The possibility of the main rotor flapping, which is likely to have been induced during the accident sequence and which led to the control column eye-end breaking off from its mount position. The vertical stabiliser had cuts that were likely to have been caused by the flapping of the main rotor.
3. The post-mortem report is currently being reviewed especially with regard to upper leg injuries sustained by the pilot that might have been inflicted by the control column when the main rotor was flapping.
4. The gyrocopter's control column eye-end link broke off from the airframe; if this occurred during the flight, it could have likely resulted in the pilot losing control of the gyrocopter as well as not being able to make any positive control inputs during the flight. Thus, it has been determined that the failure occurred during impact with terrain.

The AIID investigation, in collaborate with the manufacturer and the SACAA (which is involved in areas of interest including flight operations, human performance, training standards, procedures, aircraft systems, passenger evacuation and airport emergency response), is on-going and the investigators will be looking into other aspects of this occurrence which may or may not have safety implications.

This report is issued by:

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