

LIMITED ACCIDENT INVESTIGATION REPORT

Reference Number	CA18/2/3/10117						
Classification	Accident	Date	10 February 2022	Time	1830Z		
Type of Operation	Operation of Non-type Certificated Aircraft (Part 94)						
Location							
Place of Departure	Mossel Bay Aerodrome (FAMO), Western Cape Province		Place of Intended Landing	Mossel Bay Aerodrome (FAMO), Western Cape Province			
Place of Accident	Mossel Bay Aerodrome at GPS S 33° 09' 31.85", E 022° 03' 20.40" and at a field elevation of 545 feet						
GPS Co-ordinates	Longitude	S 33° 09' 31.85"	Latitude	E 022° 03' 20.40"	Elevation	545 ft	
Aircraft Information							
Registration	ZU-DYO						
Model/Make	RAF 2000GTX SE (Serial Number: H2/05/16/645)						
Damage to Aircraft	Substantial		Total Aircraft Hours	1660			
Pilot-in-command							
Licence Type	National Pilot Licence (NPL)		Gender	Male	Age	63	
Licence Valid	Yes						
Total Hours on Type	314		Total Flying Hours	1233.12			
People On-board	1+0	Injuries	0	Fatalities	0	Other (on ground)	0
What Happened							
<p>On 10 February 2022 at approximately 1800Z, a pilot on-board a RAF 2000GTX SE Gyrocopter aircraft with registration ZU-DYO took off from Mossel Bay Aerodrome (FAMO), Western Cape province, to conduct touch-and-go circuit exercises with the intention to land back at the same aerodrome. This was a private flight and no flight plan was filed. The flight was also conducted under visual meteorological conditions (VMC) by night and under the provisions of Part 94 of the Civil Aviation Regulations (CAR) 2011 as amended.</p> <p>The pilot stated that during the landing roll on Runway 28, a crosswind from the right pushed the Gyrocopter to the left-side and the pilot subsequently lost control. The pilot attempted to recover, however, the Gyrocopter rolled to the left and came to rest on its left-side. The Gyrocopter was substantially damaged during the accident sequence.</p>							

The investigation revealed the following:

The pilot did not enquire about the weather focus report during pre-flight planning. There is no weather station in the vicinity of Mossel Bay, however, the aerodrome is located closer to George Aerodrome (FAGG) weather focus terminal, approximately 36 kilometres (km) away. Weather focus from FAGG METAR was 101600Z 07005KT 050V110 9999 FEW014 BRK020 19/16 QNF1013. The prevailing weather at the time has been interpreted as follows:

FAGG METAR: George Aerodrome Meteorological Report:

Date: 10th day of the month

Time :1600 UTC

Wind direction: 070 degrees

Wind speed: 5 knots veering between 050 degrees and 110 degrees

Visibility: 10km

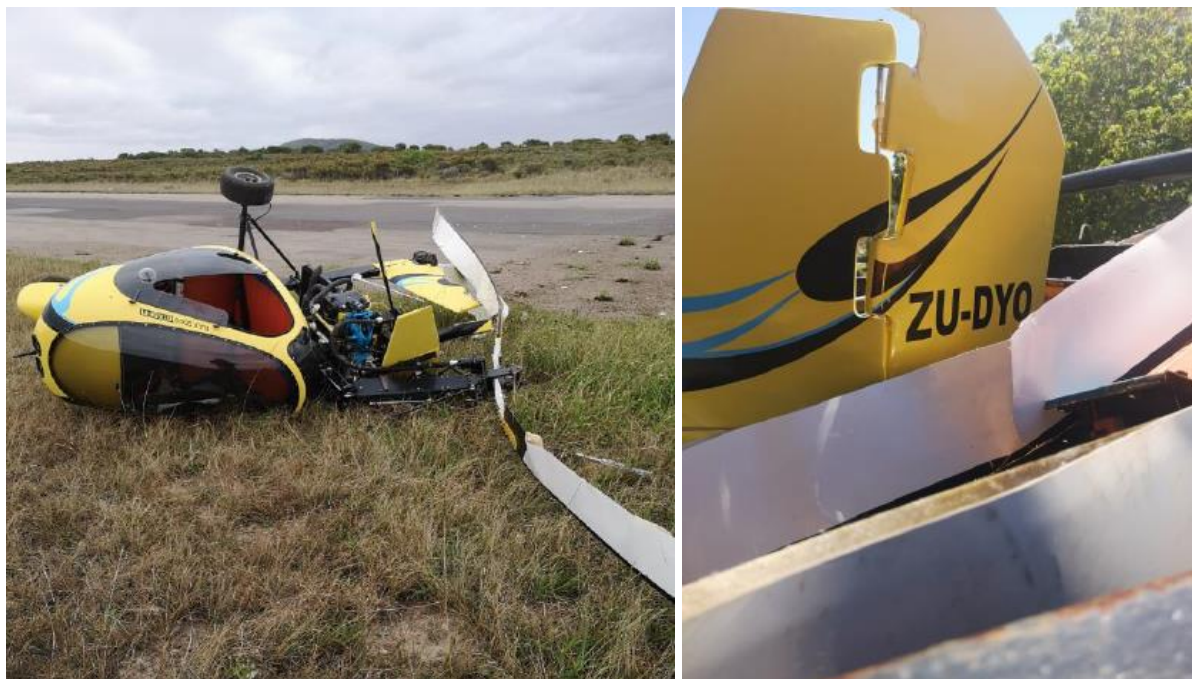
Cloud base: Few clouds at 1400ft and broken clouds at 2000ft

Temperature: 19 degrees

Dew point: 16 degrees

QNH: 1013

The prevailing weather conditions were variable; however, they could not have caused a significant impact on the Gyrocopter during this flight. According to the Gyrocopter type RAF2000 flight manual and operating limits, the maximum demonstrated crosswind for take-off or landing is 20 miles per hour (mph)/(32km/h) at 90 degrees.



Figures 1 and 2: The damaged aircraft post-accident. (Source: Pilot)

According to the pilot's questionnaire, the landing speed was 70mph. The recommended landing procedure during normal circumstances as per the flight manual and limitation is as follows:

- *Approach landing airspeed: 60mph*
- *Round out airspeed: 40mph*
- *Touchdown flare tail wheel first, to full stop (Stick is fully back on touchdown)*

- *Landing roll lower the nose gently with forward stick pressure AFTER COMPLETE STOP*
- *Braking Minimum required*

The pilot was issued a National Pilot Licence (NPL) by the Regulator (SACCA) on 21 May 2019 with an expiry date of 23 March 2023. His Class 4 medical certificate was issued by the Regulator on 7 February 2019 with an expiry date of 28 February 2022. The Gyrocopter was endorsed on the pilot's licence. The pilot had a total of 202.5 hours on the Gyrocopter type only.

The Gyrocopter was issued an Authority to Fly by the Regulator on 14 June 2021 with an expiry date of 30 June 2022. The approved person who maintained the Gyrocopter had issued a Certificate of Release to Service on 17 May 2021 at 515.5 airframe hours, which was due to lapse at 615.5 hours or on 14 May 2022, whichever occurs first, unless the Gyrocopter is involved in an accident or becomes unserviceable, in which case the certificate is invalid for the duration of the period. The Gyrocopter had a total of 517.8 hours at the time of the accident.

Probable Cause

The pilot landed at a high speed and lost control of the Gyrocopter, which veered off towards the left of the runway and subsequently rolled over.

Contributing Factor

1. Disregard of safe operating procedure limitations for the Gyrocopter.
2. The Gyrocopter was not stable on approach and it landed hard before the pilot lost control.

Safety Action/s

None.

Safety Message

Safety message: Pilots must adhere to the regulations and manufacturers' limitations at all times during flight in order to attain a safe flight.

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**