SOUTH AFRICAN CIVIL AVIATION AUTHORITY

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

LIMITED ACCIDENT INVESTIGATION REPORT

Reference Number	CA18/2/3/10035								
Classification	Accident	**Date**	4 September 2021		**Time**	0720Z			
Type of Operation	Private Flight (Part 91)								
Location									
Place of Departure	Orient Airfield (FAOI), Gauteng Province		Place of Intended Landing		Orient Airfield (FAOI), Gauteng Province				
Place of Accident	Runway 36L at Orient Airfield (FAOI)								
GPS Co-ordinates	Latitude	S 26º02'24.81"	Longitude	E 027º35'36.95"	Elevation	5115 feet			
Aircraft Information									
Registration	ZS-GYH								
Model/Make	Motor Falke SF25C (Serial Number: 4424)								
Damage to Aircraft	Substantial		Total Aircraft Hours		4255.3				
Pilot-in-command									
Licence Type	Private Pilot Licence (PPL)		Gender	Male	Age: 55				
Licence Valid	Yes								
Total Hours on Type	4.8		Total Flying Hours		434.8				
People On-board	1 + 1	Injuries	0	Fatalities	0	Other (on ground)	0		
What Happened									

On 4 September 2021 at about 0710Z, a pilot and a passenger on-board a Motor Falke SF25C aircraft with registration ZS-GYH were conducting circuit landings at Orient Aerodrome (FAOI) on Runway (RWY) 36L. The flight was conducted under visual meteorological conditions (VMC) by day. Fine weather conditions prevailed at the time of the accident.

The pilot stated that the first circuit was completed without issues and a touch-and-go landing was carried out. On the second circuit during approach for RWY 36L, a stable descent was maintained, although the coordinated spoiler control felt different, which distracted the pilot slightly. The pilot stated that the distraction contributed to a lower than ideal airspeed, which fluctuated between 100 kilometres per hour (km/h) (53kts) and 90km/h (48kts) in the final descent (beyond the airfield fence).

According to the pilot, the aircraft was at a higher than ideal height from the ground when flaring was initiated, and had possibly applied too much airbrake, approximately in front of the lapa (building) at the airfield. The aircraft stalled during landing which resulted in a hard landing that damaged the propeller.

The pilot also stated that on hindsight, the initiation of a go-around would have been a more suitable solution to the distraction, but regrettably, this option was not exercised.

Following the accident, the engine flange was inspected by an approved person (AP) and was found undamaged.

The aircraft sustained damage to the propeller, and the airframe tubing was bent behind the mono-wheel. Both occupants were not injured during the accident.

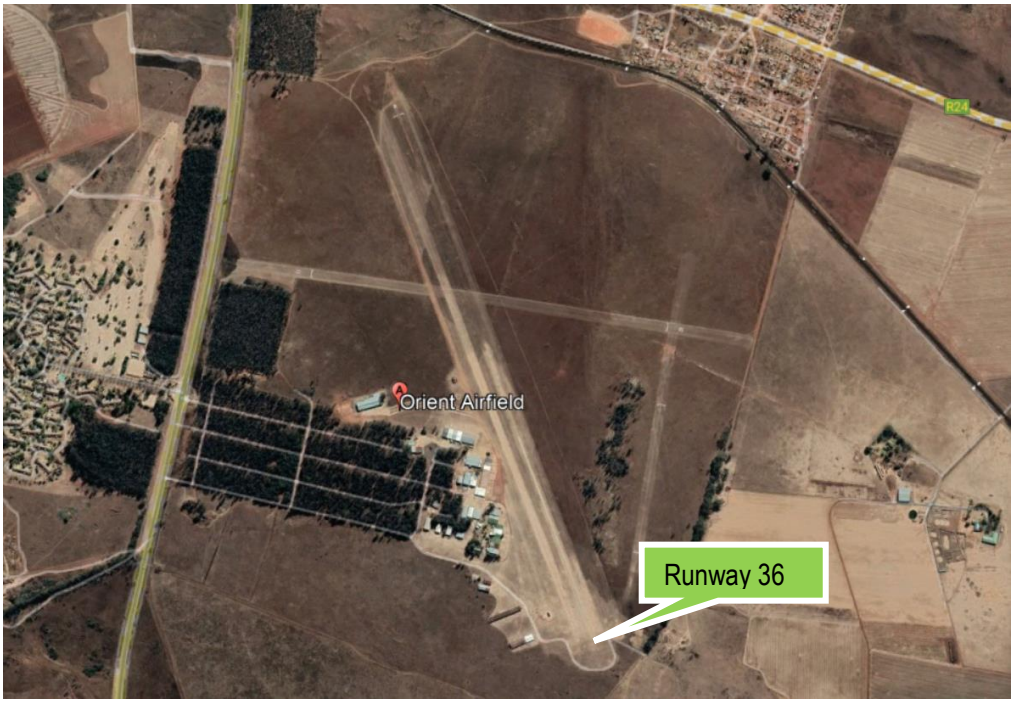

Figure 1: The runway used (RWY 36L) at FAOI. (Source: Google Earth)

Figure 2: Aircraft after recovery. (Source: Pilot)

Landing

Source: SF 25 C Pilot's Operating Handbook

The aircraft can be landed with the engine either running or stopped. Approach at 49 knots (56mph), flying a normal gliding type circuit. Control the glide path with the spoilers. As the spoilers are effective it is not usually necessary to slip the aircraft. With spoilers extended the rate of sink at 49 knots (56mph) is approximately 3.7 m/s (12 feet per second) At minimum touch down speed (38 knots / 44 mph), the Falke touches down with the tailwheel then with the mainwheel (in the case of the nosewheel version first with the mainwheel then with the nosewheel). The landing run of about 300 feet can be reduced effectively using the mainwheel brakes. The brake is operated by the spoiler control on the last part of its travel when it is pulled fully back, so never touch down with the spoiler lever pulled fully back. The tail dragger version of the Falke also features heelbrakes are applied to reduce speed after landing they must be operated evenly to avoid the Falke swerving.

Probable cause:

The aircraft was high on approach and the pilot flared too early, resulting in a hard landing and the propeller blades striking the ground.

Safety Action/s

None.

Safety Message and/or Safety Recommendation/s

None.

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