

LIMITED ACCIDENT INVESTIGATION REPORT

Reference Number	CA18/2/3/10009						
Classification	Accident	Date	1 June 2021	Time	0945Z		
Type of Operation	Helicopter Aerial Work (Part 128)						
Location							
Place of Departure	Farm Middelwater in the Brandfort District, Free State Province			Place of Intended Landing	Same Farm		
Place of Accident	Farm Middelwater in the Brandfort District, Free State Province						
GPS Co-ordinates	Latitude	28°54'21.60"S	Longitude	2618'48.73"E	Elevation	4346 feet	
Aircraft Information							
Registration	ZS-RVD						
Make / Model	Schweizer 269C (Serial No. S1849)						
Damage to Aircraft	None		Total Aircraft Hours	2 319.4			
Pilot-in-command							
Licence Valid	Yes	Gender	Male		Age 33		
Licence Type	Commercial Pilot						
Total Hours on Type	1 943.9		Total Flying Hours	5 098.0			
People On-board	1 + 1	Injuries	1	Fatalities	0	Other (On Ground)	0
What Happened							
<p>On Tuesday morning, 1 June 2021, the pilot on-board a Schweizer 269C helicopter with registration ZS-RVD took off from New Tempe Aerodrome (FATP), just outside Bloemfontein, and landed on the game farm Middelwater in the Brandfort District.</p> <p>After the two doors were removed from the helicopter the pilot gave the passenger (farm manager) a briefing on the operation they were about to conduct, which was darting several buffalos with medication. The pilot stated that he ensured that the passenger was strapped in on the right seat by making use of the helicopter-equipped lap strap. The passenger did not make use of the shoulder harnesses as he needed to position himself to dart the buffalos.</p>							

The pilot stated that due to the cold weather conditions, the passenger was dressed warmly and was wearing a bulky jacket.

The passenger had a dart gun with him and several capsules of medication for darting the animals. After they had located the herd of buffalos, the pilot manoeuvred the helicopter and the passenger darted the first animal. He then reloaded the dart gun and turned to the right to orientate himself to dart the second buffalo. It was during this period that the passenger's safety harness unlatched (became undone). Whilst the helicopter was in a right turn and before darting the second buffalo, the passenger fell out of the helicopter at a height of approximately 30 to 50 feet above ground level. The pilot stated that their forward speed was approximately 5 knots.

The pilot immediately landed at the scene and informed the relevant people about the accident. This was a commercial operation that was conducted under the Air Operating Certificate (AOC) number CAA/N974D, which was valid from 21 February 2021 with an expiry date of 28 February 2022.

An Emergency Medical Services (EMS) helicopter was dispatched from FATP to the scene of the accident. The passenger was stabilised at the scene and was transported to a hospital in Bloemfontein.

The passenger was seriously injured, and there was no damage to the helicopter.

The safety harness (lap strap) was inspected after the accident and was found to be intact and serviceable. The passenger did not make use of an additional safety harness (see Figure 1).



Figure 1: Additional safety harness.

Probable cause:

The passenger most probably inadvertently unlatched his safety harness while manoeuvring in the helicopter to dart the buffalos and, during the right turn, lost his seating and fell out of the helicopter.

Contributory factor

The passenger did not make use of an additional safety harness as a backup to the helicopter-equipped safety harness.

Safety Action/s

None.

Safety Message and/or Safety Recommendation/s	
<p>Safety Recommendation: It is recommended that the Director of Civil Aviation mandates the use of an additional safety harness for all operations in which a crew member or a person exposes any part of their body outside of the helicopter.</p> <p>Safety Message: All operators involve in game work and associated helicopter operations should ensure that crew members and/or passengers on-board with a specific function (i.e., game darting, game culling, hoisting) be equipped with an alternate safety harness to avoid such persons from falling out of the helicopter and suffering a serious injury and/or loss of life. The adjustable safety harness should be attached to a hard point in the helicopter.</p>	
Purpose of the Investigation	
<p><i>In terms of Part 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.</i></p>	
About this Report	
<p><i>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.</i></p> <p><i>This report provides an opportunity to share safety message/s in the absence of an investigation.</i></p> <p><i>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.</i></p>	
Disclaimer	
<p><i>This report is produced without prejudice to the rights of AIID, which are reserved.</i></p>	

This report is issued by:
Accident and Incident Investigations Division
South African Civil Aviation Authority
Republic of South Africa