



Aviation Investigation Final Report

Location:	Falcon, Colorado	Accident Number:	CEN23LA397
Date & Time:	September 3, 2023, 19:45 Local	Registration:	N467TE
Aircraft:	Titanium Auto Gyro Titanium Explorer	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	1 Serious, 1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, during takeoff, the gyroplane became airborne after reaching 55 kts and was unable to climb out of ground effect. The pilot reported that he attempted a 180° turn to conduct a forced landing on the runway; however, the gyroplane descended rapidly during the turn and landed hard on the turf in the runway safety area. The gyroplane sustained substantial damage to the rotor and airframe.

The pilot reported that there were no preaccident mechanical malfunctions or failures with the gyroplane that would have precluded normal operation. The pilot stated further that he should have delayed rotation until 60 to 65 kts to achieve the proper climb.

Density altitude at the time of the accident was about 9,350 ft, which would have further decreased climb performance.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to establish a proper airspeed before becoming airborne, which resulted in an inability to climb out of ground effect and subsequent hard landing. Contributing to the accident was high-density altitude.

Findings

Environmental issues	High density altitude - Contributed to outcome
Aircraft	Airspeed - Not attained/maintained
Personnel issues	(general) - Pilot

Factual Information

History of Flight

Takeoff	Miscellaneous/other
Landing	Off-field or emergency landing
Landing-flare/touchdown	Hard landing (Defining event)

Pilot Information

Certificate:	Sport Pilot	Age:	62,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	Gyroplane	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	March 4, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 7, 2022
Flight Time:	338.3 hours (Total, all aircraft), 82 hours (Total, this make and model), 256.3 hours (Pilot In Command, all aircraft), 16.3 hours (Last 90 days, all aircraft), 8.9 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Titanium Auto Gyro	Registration:	N467TE
Model/Series:	Titanium Explorer	Aircraft Category:	Gyroplane
Year of Manufacture:	2017	Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	0046-1117
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	June 12, 2023 Condition	Certified Max Gross Wt.:	1267 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	374.2 Hrs	Engine Manufacturer:	Rotax
ELT:	Not installed	Engine Model/Series:	914UL
Registered Owner:	SCHMIDT JAMES P	Rated Power:	115 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	KFLY,6878 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	19:35 Local	Direction from Accident Site:	330°
Lowest Cloud Condition:	Scattered / 12000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	0 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	22°C / 7°C
Precipitation and Obscuration:			
Departure Point:	Falcon, CO	Type of Flight Plan Filed:	None
Destination:	Falcon, CO	Type of Clearance:	VFR,None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	MEADOW LAKE KFLY	Runway Surface Type:	Asphalt
Airport Elevation:	6878 ft msl	Runway Surface Condition:	Dry
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	6001 ft / 60 ft	VFR Approach/Landing:	Touch and go;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor, 1 None	Latitude, Longitude:	38.936804,-104.56666(est)

Administrative Information

Investigator In Charge (IIC):	Brown, Zane
Additional Participating Persons:	Joshua Friederichs; FAA FSDO; Denver , CO
Original Publish Date:	June 28, 2024
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=193001

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).