



Aviation Investigation Final Report

Location:	Lakeside, Oregon	Accident Number:	WPR21LA252
Date & Time:	June 29, 2021, 11:30 Local	Registration:	N159WT
Aircraft:	SilverLight Aviation AR-1	Aircraft Damage:	Substantial
Defining Event:	Collision with terr/obj (non-CFIT)	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

The pilot reported that he departed from runway 33, which was composed of grass; there was no wind. During the takeoff roll, he was unable to get to an appropriate takeoff velocity. As he neared the end of the runway, he realized the gyrocopter would not clear the trees and at an altitude of about 20 ft agl, he attempted a left 180° turn back to the runway. The gyrocopter collided with the terrain still configured in the left turn. The forward fuselage of the gyrocopter was substantially damaged. The pilot reported that there were no preaccident mechanical malfunctions or failures that would have precluded normal operation. The pilot opined that he did not properly compensate for the drag from the grass and was not able to get enough airspeed to make an adequate takeoff.

Probable Cause and Findings

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

The pilot's inadequate decision to continue the takeoff after sufficient airspeed was not attained and his failure to maintain aircraft control while maneuvering to avoid obstructions, which resulted in a collision with the ground.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Airspeed - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Takeoff	Collision with terr/obj (non-CFIT) (Defining event)
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Pilot Information

Certificate:	Sport Pilot	Age:	70,Male
Airplane Rating(s):	None	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:	Sport pilot None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	October 27, 2020
Flight Time:	(Estimated) 239 hours (Total, all aircraft), 225197 hours (Total, this make and model), 161 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SilverLight Aviation	Registration:	N159WT
Model/Series:	AR-1	Aircraft Category:	Helicopter
Year of Manufacture:	2017	Amateur Built:	
Airworthiness Certificate:	Experimental (Special)	Serial Number:	0008
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	May 1, 2021 100 hour	Certified Max Gross Wt.:	
Time Since Last Inspection:	13 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	203 Hrs	Engine Manufacturer:	ROTAX
ELT:	Not installed	Engine Model/Series:	912ULS
Registered Owner:	CHAPLAINS OF INDUSTRY	Rated Power:	100 Horsepower
Operator:	CHAPLAINS OF INDUSTRY	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KOTH, 17 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	11:56 Local	Direction from Accident Site:	195°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	Overcast / 2200 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.86 inches Hg	Temperature/Dew Point:	21°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lakeside, OR	Type of Flight Plan Filed:	None
Destination:	Lakeside, OR	Type of Clearance:	None
Departure Time:	Type of Airspace:		

Airport Information

Airport:	LAKESIDE MUNI 9S3	Runway Surface Type:	Grass/turf
Airport Elevation:	20 ft msl	Runway Surface Condition:	Dry
Runway Used:	15/33	IFR Approach:	None
Runway Length/Width:	2150 ft / 100 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	43.58317,-124.18039(est)

Administrative Information

Investigator In Charge (IIC):	Keliher, Zoe
Additional Participating Persons:	Eric Ramsayer; Federal Aviation Administration; Portland, OR
Original Publish Date:	August 20, 2021
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=103372

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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](#).