



# **Aviation Investigation Final Report**

Location:	Upper Lake, California	Accident Number:	WPR20CA253
Date & Time:	August 4, 2020, 09:30 Local	Registration:	N635BC
Aircraft:	Robert D Carr Jr Cavalon	Aircraft Damage:	Substantial
Defining Event:	Low altitude operation/event	Injuries:	2 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

## Analysis

The pilot of the gyroplane reported that, while maneuvering at low altitude over a friend's property, he looked down and backwards to the ground and inadvertently pulled back on the control stick, slowing the gyroplane to about 20 mph. He attempted to correct by applying full engine power and descending to reestablish airspeed. Concerned the gyroplane would impact trees, he flared just above a wooded area. The gyroplane fell through the trees to the ground substantially damaging the tail section.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the gyroplane that would have precluded normal operation.

## **Probable Cause and Findings**

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

The pilot's distraction and failure to maintain adequate airspeed during a low altitude maneuver, which resulted in a loss of aircraft control and collision with terrain.

## Findings

Personnel issues	Task monitoring/vigilance - Pilot
Personnel issues	Aircraft control - Pilot
Aircraft	Airspeed - Not attained/maintained

## **Factual Information**

## History of Flight

Maneuvering-low-alt flying	Low altitude operation/event (Defining event)
Emergency descent	Collision with terr/obj (non-CFIT)

### **Pilot Information**

Certificate:	Sport Pilot	Age:	67,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Gyroplane	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 853.8 hours (Total, all aircraft), 71.8 hours (Total, this make and model), 803.3 hours (Pilot In Command, all aircraft), 71.3 hours (Last 90 days, all aircraft), 24.8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### **Passenger Information**

Certificate:		Age:	Male
Airplane Rating(s):		Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	4-point
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

### Aircraft and Owner/Operator Information

Aircraft Make:	Robert D Carr Jr	Registration:	N635BC
Model/Series:	Cavalon	Aircraft Category:	Gyroplane
Year of Manufacture:	2017	Amateur Built:	Yes
Airworthiness Certificate:	Experimental light sport (Special)	Serial Number:	V00320
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	January 15, 2020 Annual	Certified Max Gross Wt.:	1234 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	272 Hrs	Engine Manufacturer:	Rotax
ELT:	C126 installed	Engine Model/Series:	914 UL
Registered Owner:	On file	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:	Day
<b>Observation Facility, Elevation:</b>	KUKI,617 ft msl	Distance from Accident Site:	74 Nautical Miles
Observation Time:		Direction from Accident Site:	265°
Lowest Cloud Condition:	Clear	Visibility	50 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	None / Terrain-Induced
Wind Direction:		Turbulence Severity Forecast/Actual:	/ Light
Altimeter Setting:	29.99 inches Hg	Temperature/Dew Point:	22°C / 12°C
Precipitation and Obscuration:			
Departure Point:	Lakeport, CA (102)	Type of Flight Plan Filed:	None
Destination:	Lakeport, CA (102)	Type of Clearance:	None
Departure Time:	08:30 Local	Type of Airspace:	Class G

Wreckage a	and Impact	Information
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Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	39.163612,-122.88277

#### **Preventing Similar Accidents**

Manage Risk: Good Decision-making and Risk Management Practices are Critical (SA-023)

#### The Problem

Although few pilots knowingly accept severe risks, accidents can also result when several risks of marginal severity are not identified or are ineffectively managed by the pilot and compound into a dangerous situation. Accidents also result when the pilot does not accurately perceive situations that involve high levels of risk. Ineffective risk management or poor aeronautical decision-making can be associated with almost any type of fatal general aviation accident.

#### What can you do?

- Develop good decision-making practices that will allow you to identify personal attitudes that are hazardous to safe flying, apply behavior modification techniques, recognize and cope with stress, and effectively use all resources. Understand the safety hazards associated with human fatigue and strive to eliminate fatigue contributors in your life.
- Understand that effective risk management takes practice. It is a decision-making process by which you can systematically identify hazards, assess the degree of risk, and determine the best course of action.

- Be honest with yourself and your passengers about your skill level and proficiency. Refuse to allow external pressures, such as the desire to save time or money or the fear of disappointing passengers, to influence you to attempt or continue a flight in conditions in which you are not comfortable.
- Be honest with yourself and the FAA about your medical condition. If you have a medical condition or are taking any medication, do not fly until your fitness for flight has been thoroughly evaluated.
- Plan ahead with flight diversion or cancellation alternatives, and brief your passengers about the alternatives before the flight.

See <u>https://www.ntsb.gov/Advocacy/safety-alerts/Documents/SA-023.pdf</u> for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

#### **Administrative Information**

Investigator In Charge (IIC):	Bledsoe, James
Additional Participating Persons:	Julie Orrick; FAA FSDO ; Sacramento, CA
Original Publish Date:	August 24, 2021
Last Revision Date:	
Investigation Class:	<u>Class 4</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101735

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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 <u>here</u>.