



# Aviation Investigation Final Report

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<b>Location:</b>	Fort Worth, Texas	<b>Accident Number:</b>	GAA17CA308
<b>Date &amp; Time:</b>	May 27, 2017, 13:00 Local	<b>Registration:</b>	N721E
<b>Aircraft:</b>	ROBERT HAMBLIN AUTOGYRO GMBH CAVALO	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Controlled flight into terr/obj (CFIT)	<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The pilot of the gyrocopter reported that, after flying over his passenger's house to take pictures, he headed back to the airport. He added that, while in level flight, he noticed that "the trees on the ground under [him were] rapidly getting closer." He initially presumed something was wrong with the engine, so he reduced throttle and then successfully applied full throttle in an attempt to troubleshoot the situation. He made a left 180° turn, and the gyrocopter struck trees and impacted terrain.

The gyrocopter sustained substantial damage to the empennage.

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

The pilot reported that he had presumed the terrain he was flying over was flat but later realized he had flown into rising terrain.

## Probable Cause and Findings

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

The pilot's failure to maintain clearance from terrain.

## Findings

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<b>Personnel issues</b>	Monitoring environment - Pilot
<b>Environmental issues</b>	(general) - Awareness of condition
<b>Environmental issues</b>	(general) - Effect on operation

## Factual Information

### History of Flight

<b>Enroute</b>	Controlled flight into terr/obj (CFIT) (Defining event)
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### Pilot Information

<b>Certificate:</b>	Private; Sport Pilot	<b>Age:</b>	70, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Gyroplane	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Sport pilot With waivers/limitations	<b>Last FAA Medical Exam:</b>	March 10, 2008
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	July 12, 2016
<b>Flight Time:</b>	(Estimated) 978 hours (Total, all aircraft), 78 hours (Total, this make and model), 978 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	ROBERT HAMBLIN	<b>Registration:</b>	N721E
<b>Model/Series:</b>	AUTOGYRO GMBH CAVALO NO SERIES	<b>Aircraft Category:</b>	Gyroplane
<b>Year of Manufacture:</b>	2016	<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	V00255
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 19, 2016 Unknown	<b>Certified Max Gross Wt.:</b>	1102 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	94 Hrs	<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	914
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	115 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KNFW,608 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	17:52 Local	<b>Direction from Accident Site:</b>	118°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 3700 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	15 knots / 22 knots	<b>Turbulence Type Forecast/Actual:</b>	/ None
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/ N/A
<b>Altimeter Setting:</b>	29.82 inches Hg	<b>Temperature/Dew Point:</b>	34°C / 23°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	BLUM, TX (87TX)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	FORT WORTH, TX (50F )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	12:00 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 Minor	<b>Latitude, Longitude:</b>	32.805831,-97.542503(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Benhoff, Kathryn
<b>Additional Participating Persons:</b>	Baker Nase; FAA; Irving, TX
<b>Original Publish Date:</b>	July 20, 2017
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=95253">https://data.nts.gov/Docket?ProjectID=95253</a>

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