



# Aviation Investigation Final Report

<b>Location:</b>	Tuscumbia, Alabama	<b>Accident Number:</b>	ERA24LA083
<b>Date &amp; Time:</b>	December 16, 2023, 10:37 Local	<b>Registration:</b>	N60932
<b>Aircraft:</b>	RABE RICHARD EXEC 162F	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The student pilot was practicing hovering without the supervision of a flight instructor. The pilot reported that the winds were gusty and he estimated the surface winds to be about 10 to 15 mph. The pilot stated he started to drift and attempted to make a turn; during the turn, the pilot realized he was too close to some objects, and he began to panic. The pilot lowered the collective and the back right skid contacted the ground, after which he pulled up on the collective and lost control of the helicopter. Subsequently, the helicopter rolled over into a ditch; the pilot evacuated and a post-accident fire ensued, resulting in substantial damage to the helicopter. The pilot reported that there were no preaccident mechanical malfunctions or failures with the helicopter 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 failure to maintain control of the helicopter, which resulted in the right skid contacting the ground and a subsequent rollover.

## Findings

<b>Aircraft</b>	Lateral/bank control - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Gusts - Response/compensation

## Factual Information

### History of Flight

Maneuvering-hover	Loss of control in flight (Defining event)
Maneuvering-hover	Collision with terr/obj (non-CFIT)

### Pilot Information

Certificate:	Student	Age:	43,Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	38 hours (Total, all aircraft), 15 hours (Total, this make and model), 6 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	RABE RICHARD	Registration:	N60932
Model/Series:	EXEC 162F	Aircraft Category:	Helicopter
Year of Manufacture:	2000	Amateur Built:	Yes
Airworthiness Certificate:	Experimental light sport (Special)	Serial Number:	6429
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	June 3, 2023 Condition	Certified Max Gross Wt.:	1500 lbs
Time Since Last Inspection:	10 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	150.9 Hrs at time of accident	Engine Manufacturer:	Rotorway
ELT:	Not installed	Engine Model/Series:	RI 162F
Registered Owner:	On file	Rated Power:	150 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Unknown	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MSL, 550 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	10:53 Local	<b>Direction from Accident Site:</b>	69°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Overcast / 8000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	140°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.2 inches Hg	<b>Temperature/Dew Point:</b>	14°C / 5°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Tuscumbia, AL	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Tuscumbia, AL	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	34.710658, -87.725081 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Gibson, Kurt
<b>Additional Participating Persons:</b>	Kenneth Lancaster; FAA/FSDO; Vestavia Hills, AL
<b>Original Publish Date:</b>	March 21, 2024
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=193602">https://data.nts.gov/Docket?ProjectID=193602</a>

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 [here](#).