



# Aviation Investigation Final Report

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<b>Location:</b>	Shrewsbury, Pennsylvania	<b>Accident Number:</b>	ERA22LA118
<b>Date &amp; Time:</b>	February 9, 2022, 16:20 Local	<b>Registration:</b>	N64741
<b>Aircraft:</b>	Hiller UH-12E4	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Hard landing	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

According to the pilot, during a short local flight while approaching to land, he encountered a descent rate that was unsuitable for landing. He attempted to correct for the rate of descent but was unsuccessful after pulling full collective pitch. The helicopter impacted the ground and rolled on to its right side, which resulted in substantial damage to the fuselage. He stated that he may have encountered a condition called “settling with power” during his approach to land due to the winds.

The pilot reported no mechanical anomalies that would have prevented 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 during the descent which resulted in a hard landing.

## Findings

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<b>Personnel issues</b>	Identification/recognition - Pilot
<b>Aircraft</b>	Descent rate - Not attained/maintained
<b>Personnel issues</b>	Delayed action - Pilot
<b>Environmental issues</b>	Variable wind - Awareness of condition

## Factual Information

### History of Flight

<b>Landing-flare/touchdown</b>	Hard landing (Defining event)
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### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	71, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Center
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	Lap only
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	November 30, 2021
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	September 30, 2021
<b>Flight Time:</b>	155 hours (Total, all aircraft), 155 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Hiller	<b>Registration:</b>	N64741
<b>Model/Series:</b>	UH-12E4 NO SERIES	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>	1976	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	2189
<b>Landing Gear Type:</b>	None; Skid	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 18, 2020 Continuous airworthiness	<b>Certified Max Gross Wt.:</b>	3100 lbs
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	150 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-540
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	310 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>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	5 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots / 25 knots	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	60°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.1 inches Hg	<b>Temperature/Dew Point:</b>	11°C / -6.7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Churchville, MD (OW3)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Shrewsbury, PA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:10 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	SHOESTRING AVIATION AIRFIELD 0P2	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	1000 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	06U	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	1000 ft / 100 ft	<b>VFR Approach/Landing:</b>	Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	39.796254,-76.646393

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Alleyne, Eric
<b>Additional Participating Persons:</b>	Robert C. Hall; FAA/FSDO; Honolulu, HI
<b>Original Publish Date:</b>	June 14, 2022
<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=104621">https://data.nts.gov/Docket?ProjectID=104621</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](#).