



# Aviation Investigation Final Report

<b>Location:</b>	La Porte, Texas	<b>Accident Number:</b>	DEN08LA071
<b>Date &amp; Time:</b>	April 4, 2008, 15:03 Local	<b>Registration:</b>	N40289
<b>Aircraft:</b>	Hiller UH-12E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Flight test		

## Analysis

The pilot was test flying the helicopter after maintenance. He did two "quick stop" maneuvers into the wind. After completing the quick stop maneuver, and while in a 5-foot hover, he initiated a slow pedal turn to the left to return to the hangar. As he began the turn, he noticed "a loss of control effectiveness" and he attempted to set the helicopter down. Before he could regain control, the helicopter "slammed" into the ground. The pilot said it had begun to rain, and after he exited the helicopter, he noticed the wind sock had shifted 180 degrees. The tail boom was severed and the main rotor blades were destroyed.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of tail rotor effectiveness. Contributing factors were the sudden windshift to a tailwind, and the pilot initiating a hovering turn in ground effect.

## Findings

<b>Environmental issues</b>	Sudden wind shift - Not specified
<b>Environmental issues</b>	Tailwind - Not specified
<b>Personnel issues</b>	Incorrect action performance - Pilot
<b>Environmental issues</b>	Glassy surface - Not specified

## Factual Information

### History of Flight

<b>Maneuvering</b>	Other weather encounter
<b>Maneuvering-hover</b>	Loss of control in flight (Defining event)
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

On April 4, 2008, at 1503 central daylight time, a Hiller UH-12E, N40289, registered to and operated by Ascent Aviation, was substantially damaged when it struck the ground while maneuvering and rolled over at La Porte Municipal Airport (T14), La Porte, Texas. Visual meteorological conditions prevailed at the time of the accident. The test flight was being conducted under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91 without a flight plan. The airline transport certificated pilot received minor injuries, and his pilot certificated passenger was not injured. The local flight originated at T41 approximately 10 minutes before the accident.

According to the pilot's accident report, he was test flying the helicopter after performing some maintenance that had been requested by its new owner. He performed two "quick stop" maneuvers into the wind. After completing the quick stop maneuver and while in a 5-foot hover, he initiated a slow pedal turn to the left to return to the hangar. As he began the turn, he noticed "a loss of control effectiveness" and he attempted to set the helicopter down. Before he could regain control, the helicopter "slammed" into the ground. The pilot said it had begun to rain and after he exited the helicopter, he noticed the wind sock had shifted 180 degrees. The tail boom was severed and the main rotor blades were destroyed.

## Flight instructor Information

<b>Certificate:</b>	Airline transport; Commercial; Flight instructor	<b>Age:</b>	52, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Helicopter; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 With waivers/limitations	<b>Last FAA Medical Exam:</b>	December 1, 2007
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	May 1, 2007
<b>Flight Time:</b>	20000 hours (Total, all aircraft), 700 hours (Total, this make and model)		

## Information

<b>Certificate:</b>	Private	<b>Age:</b>	49, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2	<b>Last FAA Medical Exam:</b>	December 1, 2007
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	May 1, 2007
<b>Flight Time:</b>	1200 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Hiller	<b>Registration:</b>	N40289
<b>Model/Series:</b>	UH-12E	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	5096
<b>Landing Gear Type:</b>	High skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	January 1, 2008 Annual	<b>Certified Max Gross Wt.:</b>	3 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2216 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	VO-540-C2A
<b>Registered Owner:</b>	Ascent Aviation	<b>Rated Power:</b>	305 Horsepower
<b>Operator:</b>	Paul Legris	<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>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 800 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	13 knots / 21 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	330°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.81 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 16°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	La Porte, TX (T41 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	La Porte, TX (T41 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:50 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	La Porte Municipal T41	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	25 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Minor	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor, 1 None	<b>Latitude, Longitude:</b>	29.671388,-95.073608

## Administrative Information

**Investigator In Charge (IIC):** Scott, Arnold

**Additional Participating Persons:** David Richardson; Houston, Texas

**Original Publish Date:** August 28, 2008

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=67780>

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