



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Hendersonville, NC	<b>Accident Number:</b>	MIA08LA024
<b>Date &amp; Time:</b>	12/01/2007, 1634 EST	<b>Registration:</b>	N874SR
<b>Aircraft:</b>	Cirrus SR22	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 None

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

The pilot stated that he landed on runway 15 and was on the landing roll out when a gust of wind caused the left wing to come up. He applied left aileron and there was no response. The airplane started turning to the right. He lost directional control of the airplane and it came to a stop on the runway. A witness stated that he heard the pilot call in on the UNICOM radio frequency and observed the airplane on final approach. The witness heard an increase in engine power and looked up. The airplane was about 2 feet above the runway "Flailing," the airplane rose to an altitude of less than ten feet, and appeared to be banking and yawing out of control. The nearest weather reporting facility located 11 nautical miles southeast of the crash site was: wind 150 degrees at 8 knots. No gusting winds were reported at the time of the accident. The Chief Pilot for the local Sheriff's Department responded to the accident scene. He observed the airplane was in an upright position on fire. The left main landing gear and empennage had separated, the engine compartment was on the runway, and the nose landing gear was bent to the right. Examination of the runway by the Chief Pilot revealed the airplane touched down on the runway 214 feet from the displaced threshold and bounced. A tire mark and two white paint transfer marks about 3 to 6 inches in length were present on the runway. The airplane touched down again 559 feet just left of runway centerline, and another paint transfer mark was present on the runway extending 1 to 2 inches in diameter curving to the right. About 918 feet from the displaced threshold, another set of white paint transfer marks 36 feet in length were observed in a left arc on the runway. Additional tire marks were present on the runway in a left arc at 1,011 and 1,057.8 feet. A white paint transfer mark, 12 to 18 inches in length was present on the left edge of the runway 1,170 feet from the displaced threshold. The airplane departed the left side of the runway 1,302 feet from the displaced threshold. A narrow line was present in the grass extending 174 feet in an arc from the runway towards a berm and back towards the runway with propeller ground strike scars. The airplane turned to the right and came to rest on the runway 1,585 feet from the displaced threshold. Examination of the airframe, flight controls, propeller assembly, engine assembly and accessories revealed no anomalies.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:  
The pilot's improper recovery from a bounced landing resulting in a loss of directional control.

### Findings

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Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: LANDING - ROLL

Findings

1. (C) RECOVERY FROM BOUNCED LANDING - IMPROPER - PILOT IN COMMAND
2. DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. TERRAIN CONDITION - BERM

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Occurrence #3: GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

## Factual Information

On December 1, 2007, at 1634 eastern standard time, a Cirrus SR22, N874SR, registered to Cirrus D and S LLC, operating as a 14 CFR Part 91 personal flight, had a loss of directional control on landing roll out at Hendersonville Airport, Hendersonville, North Carolina. The airplane received substantial damage and a post crash fire ensued. Visual meteorological conditions prevailed and no flight plan was filed. The private pilot and one passenger reported no injuries. The flight originated from Johnson County Airport, Mountain City, Tennessee, on December 1, 2007, at 1500.

The pilot stated he landed on runway 15 and was on landing roll out when a gust of wind caused the left wing to come up. He applied left aileron and there was no response. The airplane started turning to the right. He lost directional control of the airplane and it came to a stop on the runway. He and his passenger exited the airplane and observed a post crash fire in the engine compartment. The pilot obtained a fire extinguisher from the airplane and was unable to extinguish the fire.

A witness stated he heard the pilot call in on the UNICOM radio frequency and report that he was landing on runway 15. He went outside to make a parking space available for the arriving airplane. The witness observed the airplane on final approach and everything appeared to be normal. He then heard an increase in engine power and looked up at the arriving airplane. The airplane was about 2 feet above the runway "Flailing," the airplane rose to an altitude of less than ten feet, and appeared to be banking and yawing out of control. The right wing looked as if the wing hit the ground, the airplane went off the runway, hit an embankment, and went back on the runway coming to a complete stop. The witness observed a small fire in the front of the aircraft, and called the 911 emergency operator.

The 1654 surface weather observation at Ashville Regional Airport, Ashville, North Carolina, located 11 nautical miles southeast of the crash site was: wind 150-degrees at 8 knots. No gusting winds were reported at the time of the accident.

The Chief Pilot for Henderson County Sheriff's Department responded to the accident site. The officer stated the wreckage was facing 130 degrees magnetic in an upright position on fire. The left main landing gear and empennage had separated, the engine compartment was on the runway, and the nose landing gear was bent to the right. Examination of the runway revealed the airplane touched down 214 feet from the displaced threshold and bounced. A tire mark and two white paint transfer marks, about 3 to 6 inches in length were present on the runway. The airplane touched down again 559 feet just left of runway centerline, and additional paint transfer marks were present on the runway extending 1 to 2 inches in diameter curving to the right. About 918 feet from the displaced threshold, another set of white paint transfer marks, 36 feet in length were observed in a left arc on the runway. Additional tire marks were present on the runway in a left arc at 1,011 and 1,057.8 feet. A white paint transfer mark, 12 to 18 inches in length was present on the left edge of the runway 1,170 feet from the displaced threshold. The airplane departed the left side of the runway 1,302 feet from the displaced threshold. A narrow line was present in the grass extending 174 feet in an arc from the runway towards a berm and back towards the runway with propeller ground strike scars. The airplane turned to the right and came to rest on the runway 1,585 feet from the displaced threshold.

Examination of the airframe, and flight controls revealed no anomalies. The propeller spinner exhibited torsional twisting. Both propeller blades remained attached to the propeller hub. One

propeller blade was bent span wise along its entire length. A gouge was present on the tip of the propeller blade. The propeller blade exhibited leading edge polishing from the propeller tip inboard to the propeller tip stripe. The propeller blade rotated in the hub past its stop in the high pitch direction. Another propeller blade exhibited "S" bending; span wise scratching; chord wise scratching; leading edge polishing, and nicks were present at the outboard propeller tip stripe. The propeller blade rotated in the hub past its stop in the high pitch direction. The remaining propeller blade exhibited forward bending at the tip of the propeller blade; polishing at the propeller tip stripes, and chord wise scratching.

The engine was examined by the FAA and a partial disassembly of the engine was conducted. All valve covers were removed. The top sparkplugs were removed and exhibited worn normal combustion deposits. The propeller was rotated by hand and compression and suction was obtained at all cylinders. The rocker arms and valves moved when the crankshaft was rotated. Continuity of the crankshaft was confirmed to the rear accessory gears and to the valve train when rotated by hand. The magnetos were removed from their mounts and spark at the ignition towers could not be verified due to fire damage; however the impulse couplings appeared to operate when rotated.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	52, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 With Waivers/Limitations	<b>Last FAA Medical Exam:</b>	07/01/2006
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	05/01/2007
<b>Flight Time:</b>	985 hours (Total, all aircraft), 101 hours (Total, this make and model), 952 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 11 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Cirrus	Registration:	N874SR
Model/Series:	SR22	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	2387
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	03/01/2007, Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:	150 Hours	Engines:	1 Reciprocating
Airframe Total Time:	150 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-550-N
Registered Owner:	Cirrus D & C LLC	Rated Power:	310 hp
Operator:	Brian M. Kettler	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KAVL, 2165 ft msl	Distance from Accident Site:	11 Nautical Miles
Observation Time:	1654 EDT	Direction from Accident Site:	145°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.33 inches Hg	Temperature/Dew Point:	13° C / 6° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mountain City, TN (6A4)	Type of Flight Plan Filed:	None
Destination:	Hendersonville, NC (0A7)	Type of Clearance:	None
Departure Time:	1500 EST	Type of Airspace:	

## Airport Information

Airport:	Hendersonville Airport (0A7)	Runway Surface Type:	Asphalt
Airport Elevation:	2084 ft	Runway Surface Condition:	Dry
Runway Used:	15	IFR Approach:	None
Runway Length/Width:	3075 ft / 40 ft	VFR Approach/Landing:	Straight-in

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	On-Ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	35.307500, -82.430556

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Carrol A Smith	<b>Report Date:</b>	03/31/2008
<b>Additional Participating Persons:</b>	Terry L Frye; Charlotte FSDO, EA-68; Charlotte, NC Bradley T Miller; Cirrus Design; Duluth, MN		
<b>Publish Date:</b>	06/20/2014		
<b>Investigation Docket:</b>	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).