



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Churchville, Maryland	<b>Accident Number:</b>	ERA18LA098
<b>Date &amp; Time:</b>	March 6, 2018, 21:17 Local	<b>Registration:</b>	N101AD
<b>Aircraft:</b>	CIRRUS DESIGN CORP SR20	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	2 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The private pilot stated that, before departure for a cross-country, personal flight at night in visual conditions, he checked the weather using several online weather resources, which showed that the destination airport was reporting visual meteorological conditions. He reported that, about 30 minutes before the anticipated arrival at the destination airport, it started snowing. He descended the airplane to get out of the snow, but the airplane encountered a temperature inversion, and because snow was accumulating on the wings, the pilot chose to divert to the closest airport. He approached the runway at a higher-than-normal speed, and the airplane ballooned during touchdown and then drifted off the side of the runway. He attempted a go-around, but the airplane could not gain enough airspeed to become airborne, and it subsequently impacted two trucks, which resulted in substantial damage to the airframe.

The pilot reported that there were no mechanical malfunctions or failures with the airplane that would have precluded normal operation. It is likely that the pilot's improper landing flare resulted in the airplane ballooning upon landing and led to his subsequent loss of directional control.

## Probable Cause and Findings

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

The pilot's improper landing flare, which resulted in the airplane ballooning on touchdown, and his subsequent failure to maintain directional control during the attempted landing and subsequent go-around.

## Findings

<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Airspeed - Not attained/maintained
<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Aircraft</b>	Landing flare - Not attained/maintained
<b>Environmental issues</b>	Ground vehicle - Contributed to outcome

## Factual Information

### History of Flight

Enroute	Other weather encounter
Landing-landing roll	Abnormal runway contact
Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion

On March 6, 2018, about 2117 eastern standard time, a Cirrus Design Corp. SR20, N101AD, was substantially damaged during an aborted landing at Harford County Airport (0W3), Churchville, Maryland. The private pilot and passenger sustained minor injuries. Night, instrument meteorological conditions prevailed at the time, and no flight plan was filed for the personal flight. The flight was operated by AMP Air LLC under the provisions of Title 14 *Code of Federal Regulations* Part 91. The flight departed Tom B. David Field Airport (CZL), Calhoun, Georgia at 1700.

The pilot stated that before departure he checked the weather using several online weather resources and found that the destination airport was reporting visual meteorological conditions. About 30 minutes prior to their arrival it started snowing. He descended from 9,500 ft to 4,000 feet, to get out of the snow and to warmer temperatures. After reaching 4,000 ft he continued to descend and encountered a temperature inversion. With snow continuing to accumulate on the wings, he elected to divert and land at the closest airport. He approached the runway at a slightly higher airspeed than normal and the airplane "balooned" during touchdown and drifted off the side of the runway. He attempted a full power go-around, but was unable to gain enough airspeed to become airborne again. The airplane subsequently impacted two landscaping trucks. The pilot reported that there were no mechanical malfunctions or failures of the airplane.

Photographs of the airplane taken by a Federal Aviation Administration inspector revealed the engine and the tail had separated from the airframe, and there was damage to the left wing and landing gear.

The pilot held a private pilot certificate with a rating for airplane single-engine land. He reported 501 hours of total flight experience. His most recent FAA second-class medical certificate was issued on May 31, 2016.

Runway 10 at 0W3 was 2,000 feet-long by 40 feet-wide, and was constructed of asphalt. A two light precision approach path indicator was installed on the left side of the runway. There were 62-foot-tall trees located 1,321 feet from the runway threshold.

The weather conditions reported at Phillips Army Airfield (APG), Aberdeen, Maryland, about 6 miles south of the accident site, included wind from 160° at 12 knots, gusting to 17 knots, visibility 5 statute miles, light rain, temperature 4° C, dew point 2° C, and an altimeter setting of 29.91 inches of mercury.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	50, 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>	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>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	May 31, 2016
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	May 28, 2017
<b>Flight Time:</b>	501 hours (Total, all aircraft), 443 hours (Total, this make and model), 27 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CIRRUS DESIGN CORP	<b>Registration:</b>	N101AD
<b>Model/Series:</b>	SR20 NO SERIES	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2002	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1198
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	August 24, 2017 Annual	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1912.9 Hrs as of last inspection	<b>Engine Manufacturer:</b>	CONT MOTOR
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-360 SER
<b>Registered Owner:</b>		<b>Rated Power:</b>	200 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Night
<b>Observation Facility, Elevation:</b>	KAPG, 57 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	21:03 Local	<b>Direction from Accident Site:</b>	165°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	5 miles
<b>Lowest Ceiling:</b>	Broken / 1100 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	12 knots / 17 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.9 inches Hg	<b>Temperature/Dew Point:</b>	4°C / 2°C
<b>Precipitation and Obscuration:</b>	Light - None - Rain		
<b>Departure Point:</b>	CALHOUN, GA (CZL )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	MOUNT HOLLY, NJ (VAY )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	HARFORD COUNTY 0W3	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	408 ft msl	<b>Runway Surface Condition:</b>	Wet
<b>Runway Used:</b>	10	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2000 ft / 40 ft	<b>VFR Approach/Landing:</b>	Go around; Straight-in

## 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>	39.566944, -76.202499

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hill, Millicent
<b>Additional Participating Persons:</b>	Steven O'Rourke; FAA/FSDO; Baltimore, MD
<b>Original Publish Date:</b>	November 6, 2019
<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=96830">https://data.nts.gov/Docket?ProjectID=96830</a>

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).