

# **Aviation Investigation Final Report**

Location: Hyannis, Massachusetts Accident Number: GAA16CA389

Date & Time: July 24, 2016, 14:00 Local Registration: N799MR

Aircraft: CIRRUS DESIGN CORP SR22 Aircraft Damage: Substantial

**Defining Event:** Hard landing **Injuries:** 2 Minor, 2 None

Flight Conducted Under: Part 91: General aviation - Personal

#### **Analysis**

The pilot reported that during landing she slowed the airplane's rate of decent to allow a touchdown after the runway intersection because of a slight surface rise that had caused bumpy landings in the past. She further reported that during touchdown the airplane landed hard and bounced about four feet into the air. She then added full power to abort the landing but was unable to regain airspeed and the airplane veered off the runway centerline to the left. The airplane collided with a security fence and airport rental cars sustaining substantial damage to both wings and fuselage.

The pilot reported that there were no pre impact mechanical failures or malfunctions with the airframe or engine 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 an appropriate descent rate during landing, which resulted in a hard landing, followed by a loss of directional control, runway excursion, and an impact with a security fence and vehicles during the subsequent attempt to abort the landing.

#### **Findings**

Aircraft Landing flare - Not attained/maintained

Aircraft Directional control - Not attained/maintained

Personnel issues Aircraft control - Pilot

Environmental issues Runway/landing area condition - Decision related to condition

Environmental issues Fence/fence post - Contributed to outcome

Environmental issues Ground vehicle - Contributed to outcome

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## **Factual Information**

## History of Flight

Landing	Miscellaneous/other
Landing	Hard landing (Defining event)
Landing-aborted after touchdown	Attempted remediation/recovery
Landing-aborted after touchdown	Runway excursion
Landing-aborted after touchdown	Loss of control on ground
Landing-aborted after touchdown	Collision with terr/obj (non-CFIT)
Landing-aborted after touchdown	Nose over/nose down

#### **Pilot Information**

Certificate:	Private	Age:	61.Female
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Airplane Rating(s):	Single-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 1680 hours (Total, all aircraft), 880 hours (Total, this make and model), 28 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft)		

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**Passenger Information** 

Certificate:		Age:	Female
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	3-point
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

## Passenger Information

Certificate:	Age:	Female
Airplane Rating(s):	Seat Occupied:	Right
Other Aircraft Rating(s):	Restraint Used:	3-point
Instrument Rating(s):	Second Pilot Present:	No
Instructor Rating(s):	Toxicology Performed:	No
Medical Certification:	Last FAA Medical Exam:	
Occupational Pilot: No	Last Flight Review or Equivale	nt:
Flight Time:		

#### **Passenger Information**

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Certificate:		Age:	Female
Airplane Rating(s):		Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	3-point
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

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## **Aircraft and Owner/Operator Information**

Aircraft Make:	CIRRUS DESIGN CORP	Registration:	N799MR
Model/Series:	SR22 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2004	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	0880
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	April 6, 2016 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1817.5 Hrs	Engine Manufacturer:	CONT MOTOR
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	IO-550N27B
Registered Owner:	On file	Rated Power:	310 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KHYA,55 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	17:56 Local	Direction from Accident Site:	17°
<b>Lowest Cloud Condition:</b>	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.94 inches Hg	Temperature/Dew Point:	27°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Hyannis, MA (HYA )	Type of Flight Plan Filed:	None
Destination:	Hyannis, MA (HYA )	Type of Clearance:	VFR
Departure Time:	13:00 Local	Type of Airspace:	Class D

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## **Airport Information**

Airport:	BARNSTABLE MUNI- BOARDMAN/POLAN HYA	Runway Surface Type:	Asphalt
Airport Elevation:	54 ft msl	Runway Surface Condition:	Dry
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	5253 ft / 150 ft	VFR Approach/Landing:	Full stop;Straight-in

## Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 Minor, 1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor, 2 None	Latitude, Longitude:	41.665554,-70.281387(est)

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#### **Administrative Information**

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Chet E Hicks; FAA; Marietta, GA
Original Publish Date:	August 31, 2016
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=93682

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.

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