



# Aviation Investigation Final Report

<b>Location:</b>	Spring, Texas	<b>Accident Number:</b>	GAA18CA464
<b>Date &amp; Time:</b>	July 26, 2018, 17:30 Local	<b>Registration:</b>	N865CP
<b>Aircraft:</b>	Cessna 172	<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 - Instructional		

## Analysis

The solo student pilot reported that, during landing, he flared the airplane high, and it then landed hard. He added that the airplane "dipped," and he felt the nosewheel wobble. He then turned off the engine and "steered to the grass" off the runway.

The airplane sustained substantial damage to the fuselage.

The student reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

The student reported that the wind was from 110° at 6 knots. The automated weather observation station located on the airport reported that, about 23 minutes before the accident, the wind was from 100° at 9 knots. The airplane landed on runway 35R.

## Probable Cause and Findings

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

The student pilot's improper landing flare in a crosswind, which resulted in a hard landing.

## Findings

<b>Aircraft</b>	Landing flare - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Student/instructed pilot
<b>Environmental issues</b>	Crosswind - Effect on operation
<b>Environmental issues</b>	Tailwind - Effect on operation

## Factual Information

### History of Flight

Landing	Miscellaneous/other
Landing	Hard landing (Defining event)

### Student pilot Information

Certificate:	Student	Age:	58,Male
Airplane Rating(s):	None	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 With waivers/limitations	Last FAA Medical Exam:	January 19, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 79 hours (Total, all aircraft), 79 hours (Total, this make and model), 7 hours (Pilot In Command, all aircraft), 14 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N865CP
Model/Series:	172 R	Aircraft Category:	Airplane
Year of Manufacture:	1998	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17280602
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	June 25, 2018 100 hour	Certified Max Gross Wt.:	2457 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	13200.7 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-360-2A
Registered Owner:		Rated Power:	160 Horsepower
Operator:		Operating Certificate(s) Held:	Pilot school (141)
Operator Does Business As:	United Flight Systems	Operator Designator Code:	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KDWH, 152 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	22:53 Local	<b>Direction from Accident Site:</b>	345°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	100°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.92 inches Hg	<b>Temperature/Dew Point:</b>	36°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Spring, TX (DWH )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Spring, TX (DWH )	<b>Type of Clearance:</b>	VFR
<b>Departure Time:</b>	17:30 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>	DAVID WAYNE HOOKS MEMORIAL DWH	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	152 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	35R	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	3500 ft / 35 ft	<b>VFR Approach/Landing:</b>	Touch and go

## 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>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	30.055555,-95.552223(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Benhoff, Kathryn
<b>Additional Participating Persons:</b>	Rick Bolton; FAA; Houston, TX
<b>Original Publish Date:</b>	March 18, 2019
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=97973">https://data.nts.gov/Docket?ProjectID=97973</a>

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