



Aviation Investigation Final Report

Location:	Hillsboro, Texas	Accident Number:	GAA18CA340
Date & Time:	June 9, 2018, 12:00 Local	Registration:	N363CK
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Abnormal runway contact	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, during a touch-and-go, he came in too fast, and the airplane landed hard and bounced. He added that he should have gone around but chose to "ride it out." Subsequently, the airplane porpoised, the nosewheel collapsed, and the airplane came to rest nose down on the runway.

The airplane sustained substantial damage to the fuselage.

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

The automated weather observation system at the accident airport reported that, about 5 minutes before the accident, the wind was from 180° at 8 knots and that, about 15 minutes after the accident, the wind was 170° at 8 knots, gusting to 15 knots. The pilot landed on runway 16.

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 a bounced landing and subsequent porpoise.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Landing flare - Not attained/maintained
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Landing	Hard landing
Landing	Abnormal runway contact (Defining event)
Landing	Landing gear collapse
Landing	Nose over/nose down

Pilot Information

Certificate:	Private	Age:	61,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
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:	December 20, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	September 21, 2017
Flight Time:	(Estimated) 99 hours (Total, all aircraft), 97 hours (Total, this make and model), 19 hours (Pilot In Command, all aircraft), 6 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N363CK
Model/Series:	172 S	Aircraft Category:	Airplane
Year of Manufacture:	2004	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	172S9634
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2457 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-360-L2A
Registered Owner:		Rated Power:	160 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KINJ,685 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	16:55 Local	Direction from Accident Site:	123°
Lowest Cloud Condition:	Scattered / 3800 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	32°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	GRAND PRAIRIE, TX (GPM)	Type of Flight Plan Filed:	VFR
Destination:	Hillsboro, TX (INJ)	Type of Clearance:	VFR
Departure Time:	11:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	HILLSBORO MUNI INJ	Runway Surface Type:	Asphalt
Airport Elevation:	685 ft msl	Runway Surface Condition:	Dry
Runway Used:	16	IFR Approach:	None
Runway Length/Width:	3998 ft / 60 ft	VFR Approach/Landing:	Touch and go;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	32.086112,-97.10083(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Javier Centeno; FAA; Irving, TX
Original Publish Date:	November 5, 2018
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97463

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](#).