



National Transportation Safety Board Aviation Accident Final Report

Location:	McKinney, TX	Accident Number:	CEN13CA090
Date & Time:	12/01/2012, 1330 CST	Registration:	N737TY
Aircraft:	CESSNA 172N	Aircraft Damage:	Substantial
Defining Event:	Hard landing	Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that windy conditions existed during the flight, but the wind was not a crosswind during landing. He said that the airplane touched down hard on the nosewheel, bounced, and then settled onto the runway. Postaccident examination of the airplane revealed that the nosewheel landing gear and propeller were bent, and the firewall sustained substantial damage. The pilot reported no mechanical malfunctions or failures 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 inadequate flare, which resulted in a hard nosewheel landing.

Findings

Aircraft	
Personnel issues	Aircraft control - Pilot (Cause)
Environmental issues	Wind - Not specified

Factual Information

History of Flight

Landing	Abnormal runway contact Hard landing (Defining event)
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Pilot Information

Certificate:	Private	Age:	34, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without Waivers/Limitations	Last Medical Exam:	08/08/2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 76 hours (Total, all aircraft), 11 hours (Total, this make and model), 23 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N737TY
Model/Series:	172N	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17269673
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	10/10/2012, 100 Hour	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	5642 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-320 SERIES
Registered Owner:	TEXINS ASSOCIATION	Rated Power:	160 hp
Operator:	TEXINS ASSOCIATION	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KTKI	Observation Time:	1353 CST
Distance from Accident Site:		Condition of Light:	Day
Direction from Accident Site:		Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Thin Broken / 3600 ft agl	Temperature/Dew Point:	24° C / 16° C
Lowest Ceiling:	Broken / 3600 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	18 knots/ 24 knots, 200°	Visibility (RVR):	
Altimeter Setting:	29.98 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Precipitation		
Departure Point:	McKinney, TX (KTKI)	Type of Flight Plan Filed:	Unknown
Destination:	McKinney, TX (KTKI)	Type of Clearance:	None
Departure Time:	CST	Type of Airspace:	

Airport Information

Airport:	Collin County Regional (KTKI)	Runway Surface Type:	Concrete
Airport Elevation:		Runway Surface Condition:	
Runway Used:	18	IFR Approach:	Unknown
Runway Length/Width:	7002 ft / 150 ft	VFR Approach/Landing:	Full Stop

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None		

Administrative Information

Investigator In Charge (IIC):	Craig Hatch	Adopted Date:	04/10/2013
Additional Participating Persons:	Kevin Taylor; FAA FSDO; Dallas, TX		
Publish Date:	04/10/2013		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=85741		

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.