



National Transportation Safety Board Aviation Accident Final Report

Location:	PHOENIX, AZ	Accident Number:	LAX04LA119
Date & Time:	02/06/2004, 1645 MST	Registration:	N2462X
Aircraft:	Cessna 182S	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The airplane landed hard and porpoised down the runway. The pilot reported that after a normal approach and touchdown on runway 25R, the nose gear collapsed and the airplane veered off the runway and nosed over. A certified flight instructor in the traffic pattern behind and above the accident airplane observed the accident sequence. He reported that the accident airplane appeared fast and was not on a stabilized approach. After the airplane touched down, it began to porpoise, with each oscillation getting larger. A mechanic stated that there was no evidence of preimpact mechanical malfunctions or failures with the airplane. He said the airplane appeared to have sustained a hard landing.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's misjudged landing flare, which led to a hard touchdown and a porpoise.

Findings

Occurrence #1: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) FLARE - MISJUDGED - PILOT IN COMMAND
2. (C) PORPOISE/PILOT-INDUCED OSCILLATION - NOT CORRECTED - PILOT IN COMMAND

Occurrence #2: NOSE GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

3. LANDING GEAR, NOSE GEAR STRUT - OVERLOAD

Occurrence #3: NOSE OVER

Phase of Operation: LANDING - ROLL

Factual Information

On February 6, 2004, about 1645 mountain standard time, a Cessna 182S, N2462X, veered off the runway following a hard landing at Phoenix Deer Valley Airport (DVT), Phoenix, Arizona. Westwind School of Aeronautics was operating the rental airplane under the provisions of 14 CFR Part 91. The private pilot, the sole occupant, was not injured; the airplane sustained substantial damage. The personal local flight departed DVT about 1530. Visual meteorological conditions prevailed for the local area flight, and a flight plan had not been filed.

During a telephone interview with the National Transportation Safety Board investigator-in-charge (IIC), the pilot reported that she was attempting to land on runway 25. After making a normal approach, she flared and touched down. The nose wheel collapsed and she was unable to maintain control, resulting in the airplane veering off to the right of the runway. She could not recall how hard the airplane had touched down on the runway surface, but noted that it did not seem abnormal.

During a telephone interview with the IIC, the operator of the airplane stated that the airplane landed hard and veered off the right side of the runway, resulting in the nose landing gear collapsing. The airplane incurred damage to the firewall.

In a written statement, a witness, who was a certified flight instructor, reported that he was flying with a student in the traffic pattern behind the accident airplane. He stated that as he turned onto final approach, he observed the accident airplane on short final. The airplane did not appear to be on a stable approach and seemed to be fast. He did not see the airplane make the initial touchdown, but witnessed it porpoise down the runway, with the nose wheel making contact first on each bounce. The porpoising appeared to get successively worse, and the airplane continued off the runway.

An airframe and powerplant mechanic (A&P) assessed the damage to the airplane. He stated that there was no evidence of preimpact mechanical malfunctions or failures with the airplane. He said the airplane appeared to have sustained a hard landing.

Pilot Information

Certificate:	Private	Age:	58, Female
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:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last Medical Exam:	12/23/2002
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	103 hours (Total, all aircraft), 8 hours (Total, this make and model), 7 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Cessna	Registration:	N2462X
Model/Series:	182S	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	18280791
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	01/29/2004, Annual	Certified Max Gross Wt.:	3110 lbs
Time Since Last Inspection:	5 Hours	Engines:	1 Reciprocating
Airframe Total Time:	1835 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	IO-540-A131A5
Registered Owner:	Visicor, Inc.	Rated Power:	230 hp
Operator:	Westwind Aeronautics	Air Carrier Operating Certificate:	None
Operator Does Business As:	WESTWIND SCHOOL OF AERONAUTICS	Operator Designator Code:	

Meteorological Information and Flight Plan

Observation Facility, Elevation:	DVT, 1476 ft msl	Observation Time:	1653 MST
Distance from Accident Site:	0 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	0°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	16° C / -7° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	8 knots, 250°	Visibility (RVR):	
Altimeter Setting:	30.27 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	PHOENIX, AZ (DVT)	Type of Flight Plan Filed:	None
Destination:	PHOENIX, AZ (DVT)	Type of Clearance:	VFR
Departure Time:	1530 MST	Type of Airspace:	Class D

Airport Information

Airport:	Phoenix Deer Valley Airport (DVT)	Runway Surface Type:	Asphalt
Airport Elevation:	1476 ft	Runway Surface Condition:	Dry
Runway Used:	25R	IFR Approach:	None
Runway Length/Width:	4500 ft / 75 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Tealeye C Cornejo	Adopted Date:	06/02/2004
Additional Participating Persons:	Steve Hanes; Federal Aviation Administration; Scottsdale, AZ		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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