



Aviation Investigation Final Report

Location:	Marion, Iowa	Accident Number:	CEN14LA138
Date & Time:	February 11, 2014, 16:00 Local	Registration:	N350AR
Aircraft:	Piper PA 46-350P	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that, after the nosewheel touched down during landing, he applied the right rudder and brake but that he was unable to keep the airplane from veering left into a 2-foot-high snow bank several feet off the runway. Runway witness marks showed that the right landing gear wheel touched down in snow and gravel off the right side of the runway's hard surface and that the left landing gear wheel touched down on the runway's hard surface. Both wheels then skidded left and off the runway. Examinations revealed no mechanical anomalies 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 attain a touchdown on the runway's hard surface, which resulted in a loss of directional control.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Landing-flare/touchdown	Loss of control on ground (Defining event)
Landing-landing roll	Collision with terr/obj (non-CFIT)

On February 10, 2014, at 1630 central standard time, a Piper PA 46-350P, N350AR, veered off the runway and impacted a snow bank during landing at Marion Airport (C17), Marion, Iowa. The airplane sustained substantial damage to the firewall. The pilot and passenger were uninjured. The airplane was registered to Adobe Construction Inc. and operated by the pilot under 14 CFR Part 91. The flight was operating on an instrument rules flight plan. Visual meteorological conditions prevailed at the time of the accident. The flight originated from Page Field Airport (FMY), Fort Myers, Florida and was destined to C17.

The pilot stated that he flew a 3-mile final visual approach to runway 35 (3,775 x 100 feet, asphalt/turf), which was "mostly fry with patchy compacted snow." When the nose wheel touched down during landing, there was a "violent pulling" to the left. The pilot applied right rudder/right brake but was unable to keep the airplane from veering left and into a 2-foot high snow bank that was located several feet off the runway.

Photos of runway 35 showed that a mark consistent with a path made by a landing gear wheel traversed off the right side of the runway's asphalt surface and through a snow-covered gravel edge. This mark within the snow was paralleled by a skid mark on the asphalt surface. Both marks then curved as skid marks off the left side of the runway and into a snow bank where the airplane rested with a collapsed nose wheel landing gear.

Fractured pieces from the nose landing gear actuator attachment area of the engine mount were optically examined in the National Transportation Safety Board Materials Laboratory. The examinations revealed features and deformation pattern on the multiple fractures that were consistent with overstress separations. No indications of pre-existing cracking or corrosion were observed.

Pilot Information

Certificate:	Private	Age:	54
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	September 24, 2013
Occupational Pilot:	No	Last Flight Review or Equivalent:	February 26, 2012
Flight Time:	2193 hours (Total, all aircraft), 1200 hours (Total, this make and model), 2153 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N350AR
Model/Series:	PA 46-350P	Aircraft Category:	Airplane
Year of Manufacture:	1990	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4622109
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	July 11, 2013 Annual	Certified Max Gross Wt.:	3663 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3575 Hrs at time of accident	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	TIO-540-AE2A
Registered Owner:	Abode Construction, Inc.	Rated Power:	350 Horsepower
Operator:	Pilot	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	CID,862 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	14:52 Local	Direction from Accident Site:	135°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.43 inches Hg	Temperature/Dew Point:	-18°C / -23°C
Precipitation and Obscuration:			
Departure Point:	Fort Meyers, FL (FMY)	Type of Flight Plan Filed:	IFR
Destination:	Marion, IA (C17)	Type of Clearance:	IFR
Departure Time:	08:25 Local	Type of Airspace:	Class E

Airport Information

Airport:	Marion Airport C17	Runway Surface Type:	Asphalt;Grass/turf
Airport Elevation:	862 ft msl	Runway Surface Condition:	Dry;Snow
Runway Used:	35	IFR Approach:	None
Runway Length/Width:	3775 ft / 100 ft	VFR Approach/Landing:	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	42.029392,-91.580513(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Dennis Daley; Federal Aviation Administration; DSM FSDO; Ankeny, IA
Original Publish Date:	November 3, 2014
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=88797

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