



Aviation Investigation Final Report

Location:	Deland, Florida	Accident Number:	ERA15CA116
Date & Time:	January 12, 2015, 15:45 Local	Registration:	N5033S
Aircraft:	Piper PA-28R-200	Aircraft Damage:	Substantial
Defining Event:	Windshear or thunderstorm	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that he had decided to return to his originating airport after having been advised by air traffic control of an inbound thunderstorm during a local flight. The pilot obtained an instrument flight rules clearance and headed towards the airport, which was in the direction of the storm. During the first landing attempt on runway 30, the pilot noted strong wind gusts and "extreme precipitation," but elected to continue the landing. About 30 feet above the runway, a "strong windshear" forced the airplane onto the runway, which resulted in substantial damage to the left wing. The airplane subsequently lifted off the ground again and the pilot initiated a go-around. The pilot circled the runway and aborted three more attempts before he successfully landed the airplane. He reported that there were no preimpact mechanical malfunctions or anomalies that could have precluded normal operation. The pilot stated that he had obtained some weather information prior to his departure, but was not aware of the thunderstorm. A review of weather radar revealed the presence of strong winds and heavy precipitation over the pilot's originating airport at the time of the accident. Winds reported at the accident site about 10 minutes after the accident were from 320 degrees at 16 knots, gusting to 27 knots. There were also area forecasts for convective activity and Convective Sigmets that had been issued for the pilot's route of flight about one hour and thirty minutes prior to his departure.

Probable Cause and Findings

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

The pilot's inadequate preflight weather planning and decision to land in an area with known convective wind gusts, which resulted in a loss of control and subsequent hard landing.

Findings

Personnel issues	Weather planning - Pilot
Personnel issues	Decision making/judgment - Pilot
Aircraft	Landing flare - Attain/maintain not possible
Environmental issues	Thunderstorm - Effect on operation

Factual Information

History of Flight

Landing	Windshear or thunderstorm (Defining event)
Landing	Hard landing

Pilot Information

Certificate:	Private	Age:	27
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	September 25, 2014
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 9, 2013
Flight Time:	311 hours (Total, all aircraft), 67 hours (Total, this make and model), 192 hours (Pilot In Command, all aircraft), 42 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N5033S
Model/Series:	PA-28R-200	Aircraft Category:	Airplane
Year of Manufacture:	1970	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	28R-35762
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	December 1, 2014 Annual	Certified Max Gross Wt.:	2750 lbs
Time Since Last Inspection:	45 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2633.7 Hrs at time of accident	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-360-C1C5
Registered Owner:	SKYLINE SOLUTIONS INC	Rated Power:	200 Horsepower
Operator:	SKYLINE SOLUTIONS INC	Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	DED,79 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:55 Local	Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:	Broken / 100 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	16 knots / 27 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	19°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	New Smyrna, FL (EVB)	Type of Flight Plan Filed:	None
Destination:	Deland, FL (DED)	Type of Clearance:	IFR
Departure Time:	15:25 Local	Type of Airspace:	Class G

Airport Information

Airport:	DELAND TAYLOR AIRPORT DED	Runway Surface Type:	Asphalt
Airport Elevation:	79 ft msl	Runway Surface Condition:	Wet
Runway Used:	30	IFR Approach:	None
Runway Length/Width:	6001 ft / 100 ft	VFR Approach/Landing:	Full stop

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:	29.066944,-81.283607(est)

Administrative Information

Investigator In Charge (IIC): Stein, Stephen

Additional Participating Persons: Rich Schiebel; FAA/FSDO; Orlando, FL

Original Publish Date: July 27, 2015

Last Revision Date:

Investigation Class: [Class](#)

Note: This accident report documents the factual circumstances of this accident as described to the NTSB.

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=90681>

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