



Aviation Investigation Final Report

Location:	Merritt Island, Florida	Accident Number:	GAA18CA292
Date & Time:	May 11, 2018, 09:10 Local	Registration:	N610FT
Aircraft:	Piper PA28	Aircraft Damage:	Substantial
Defining Event:	Abnormal runway contact	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot reported that, during a solo flight, while landing, she encountered a wind gust that "tilted" the airplane right. She attempted to maintain centerline, but the left main landing gear touched down hard. She then taxied to park without further incident.

The airplane sustained substantial damage to the left-wing spar.

The student 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 located about 8 miles southeast of the accident airport reported that, about the time of the accident, the wind was from 290° at 3 knots. The student pilot landed the airplane on runway 11.

Probable Cause and Findings

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

The student pilot's improper landing flare in tailwind conditions, which resulted in a hard landing.

Findings

Aircraft	Landing flare - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot
Environmental issues	Tailwind - Effect on operation
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Landing	Other weather encounter
Landing	Abnormal runway contact (Defining event)

Student pilot Information

Certificate:	Student	Age:	21,Female
Airplane Rating(s):	None	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 1 Without waivers/limitations	Last FAA Medical Exam:	March 16, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 32 hours (Total, all aircraft), 32 hours (Total, this make and model), 3 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N610FT
Model/Series:	PA28 161	Aircraft Category:	Airplane
Year of Manufacture:	1989	Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	2841221
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	March 14, 2018 Annual	Certified Max Gross Wt.:	2325 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	16403 Hrs	Engine Manufacturer:	LYCOMING
ELT:	C91A installed, not activated	Engine Model/Series:	O-320-D3G
Registered Owner:		Rated Power:	160 Horsepower
Operator:		Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCOF,8 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	13:56 Local	Direction from Accident Site:	144°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.12 inches Hg	Temperature/Dew Point:	26°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Merritt Island, FL (COI)	Type of Flight Plan Filed:	None
Destination:	Merritt Island, FL (COI)	Type of Clearance:	None
Departure Time:	08:09 Local	Type of Airspace:	Class G

Airport Information

Airport:	MERRITT ISLAND COI	Runway Surface Type:	Asphalt
Airport Elevation:	5 ft msl	Runway Surface Condition:	Dry
Runway Used:	11	IFR Approach:	None
Runway Length/Width:	3601 ft / 75 ft	VFR Approach/Landing:	Full stop;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:	28.3425,-80.688888(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Scott Strickland; FAA; Orlando, FL
Original Publish Date:	October 24, 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=97305

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](#).