



Aviation Investigation Final Report

Location:	Vernon, Texas	Accident Number:	GAA18CA170
Date & Time:	March 18, 2018, 22:15 Local	Registration:	N1103F
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, while conducting touch-and-go landings in the local pattern at night, the wind increased and began to gust during the third approach. He added that, he applied full power and performed a go-around. During the next landing, the airplane touched down, and the wind "increased and shifted" to the right. Subsequently, the airplane exited the left side of the runway and came to rest inverted.

The airplane sustained substantial damage to both wings, the windshield, and the fuselage.

The 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 at the accident airport reported that, about the time of the accident, the wind was from 230° at 19 knots, gusting to 23 knots. The pilot landed on runway 20.

Probable Cause and Findings

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

The pilot's failure to maintain directional control while landing in gusty crosswind conditions.

Findings

Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Environmental issues	Crosswind - Effect on operation
Environmental issues	Gusts - Effect on operation
Environmental issues	Dark - Effect on operation

Factual Information

History of Flight

Landing-landing roll	Other weather encounter
Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Runway excursion
Landing-landing roll	Nose over/nose down

Pilot Information

Certificate:	Private	Age:	46,Male
Airplane Rating(s):	Single-engine land	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 3 With waivers/limitations	Last FAA Medical Exam:	September 9, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 27, 2018
Flight Time:	(Estimated) 335 hours (Total, all aircraft), 108 hours (Total, this make and model), 120 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N1103F
Model/Series:	172 G	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17254698
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	May 1, 2017 Annual	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3750 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	C91 installed, not activated	Engine Model/Series:	O-300 SER
Registered Owner:		Rated Power:	145 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
Observation Facility, Elevation:	KF05, 1265 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	03:15 Local	Direction from Accident Site:	313°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 4800 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	19 knots / 23 knots	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	230°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.57 inches Hg	Temperature/Dew Point:	22°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Vernon, TX (F05)	Type of Flight Plan Filed:	None
Destination:	Vernon, TX (F05)	Type of Clearance:	None
Departure Time:	21:45 Local	Type of Airspace:	Class G

Airport Information

Airport:	WILBARGER COUNTY F05	Runway Surface Type:	Asphalt
Airport Elevation:	1264 ft msl	Runway Surface Condition:	Dry
Runway Used:	20	IFR Approach:	None
Runway Length/Width:	5099 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:	34.225276,-99.283058(est)

Administrative Information

Investigator In Charge (IIC):	Swenson, Eric
Additional Participating Persons:	Robert A Smith; FAA; Lubbock, TX
Original Publish Date:	July 5, 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=96897

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