



Aviation Investigation Final Report

Location:	Midland, Texas	Accident Number:	CEN24LA178
Date & Time:	May 8, 2024, 13:15 Local	Registration:	N69PW
Aircraft:	Cessna 172M	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

The pilot reported he was landing the airplane when a strong gust of wind pushed the airplane to the right about halfway down the runway. The pilot reported that after he initiated a go-around, the airplane became uncontrollable which resulted in an aerodynamic stall and impact with the ground. The impact resulted in substantial damage to the left wing and fuselage.

Initially the pilot reported that there were no mechanical malfunctions related to the airplane so the airplane was released to the owner. Later, the pilot reported that he did not hear the stall horn and suspected it was inoperable. He also stated that the flap switch physically stuck in the up position which retracted the flaps fully and contributed to the stall.

The pilot was asked to describe the normal operation of the flap switch. He stated that holding the switch up raises the flaps, holding the switch down lowers the flaps, and letting go of the switch shuts off the flap motor.

When follow up was conducted on the reported mechanical issues, the airplane was found stripped of parts, thus examination of the stall horn was not possible. The flap switch was removed and examined.

The flap switch specifications and the Pilot Operating Handbook both stated that the switch would remain in the up position until the switch was physically moved to the center (off) position, thus if the pilot let go of the switch while raising the flaps, the switch would stay in the up position and continue to raise the flaps to zero. During a go around, the flaps should have initially been retracted to 20 degrees which would require the pilot to move the flap switch back to the neutral position after the flaps reached 20 degrees. After the airplane was established in a climb, the remaining flaps would be retracted by returning the flap switch to the up position.

The switch was found to operate normally with no defects found. Based on the pilot’s description of the flap switch operation it is likely he did not know how the switch functioned.

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 airplane control during a go-around in a gusting crosswind, which resulted in an aerodynamic stall and collision with terrain. Contributing to the accident was the pilot’s lack of system knowledge regarding the operation of the flaps.

Findings	
Personnel issues	Aircraft control - Pilot
Aircraft	Airspeed - Not attained/maintained
Personnel issues	Knowledge of equipment - Pilot
Aircraft	TE flap control system - Incorrect use/operation
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Approach-VFR go-around	Loss of control in flight (Defining event)
Approach-VFR go-around	Aerodynamic stall/spin
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Commercial; Private	Age:	33,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	September 15, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 3, 2023
Flight Time:	757 hours (Total, all aircraft), 565.8 hours (Total, this make and model), 512.6 hours (Pilot In Command, all aircraft), 167.1 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N69PW
Model/Series:	172M	Aircraft Category:	Airplane
Year of Manufacture:	1975	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17265317
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	April 20, 2024 100 hour	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	5982 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	O-320-E2D
Registered Owner:	AMERICAN PATROLS INC	Rated Power:	150 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KMAF, 2872 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	12:53 Local	Direction from Accident Site:	309°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	14 knots / 21 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.72 inches Hg	Temperature/Dew Point:	31°C / -5°C
Precipitation and Obscuration:			
Departure Point:	Midland, TX	Type of Flight Plan Filed:	None
Destination:	Midland, TX	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	Skywest Airport 7T7	Runway Surface Type:	Asphalt
Airport Elevation:	2805 ft msl	Runway Surface Condition:	Dry
Runway Used:	24	IFR Approach:	None
Runway Length/Width:	2800 ft / 45 ft	VFR Approach/Landing:	Go around

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	Latitude, Longitude:	31.855,-102.07394

Administrative Information

Investigator In Charge (IIC):	Miller, Bradley
Additional Participating Persons:	Robert Smith; FAA; Lubbock, TX
Original Publish Date:	October 22, 2024
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=194231

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