



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Port Isabel, Texas	Accident Number:	CEN20FA108
Date & Time:	February 28, 2020, 19:49 Local	Registration:	N407WJ
Aircraft:	Cessna 150	Aircraft Damage:	Destroyed
Defining Event:	Loss of control in flight	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Before the accident, the pilot told the co-owner he planned to perform touch and go maneuvers. Data showed that the airplane departed and conducted one left traffic pattern flight. It could not be determined if the pilot performed a touch-and-go, or a go-around. The airplane then entered a left crosswind, and the last radar target indicated the airplane was at 250 ft above ground level and 125 knots ground speed. There were no witnesses to the accident.

The airplane impacted terrain in a 10° nose-down attitude, and the wreckage path measured about 120 ft in length. No anomalies were noted with the airframe and engine that would have precluded normal operation. Thus, it is likely that the pilot lost control during the initial takeoff climb for reasons that could not be determined based on available evidence.

The pilot's toxicology tests results revealed he had used marijuana, but none of the available information could be used to determine when that had occurred. As a result, it could not be determined if the pilot's use of marijuana contributed to the accident.

Probable Cause and Findings

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

The pilot's loss of control during the initial takeoff climb for reasons that could not be determined based on available evidence.

Findings

Personnel issues	Aircraft control - Pilot
Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Approach-VFR pattern crosswind	Loss of control in flight (Defining event)
Approach-VFR pattern crosswind	Collision with terr/obj (non-CFIT)

On February 28, 2020, at 1949 central standard time, a Cessna 150M airplane, N407WJ, was destroyed when it was involved in an accident near the Port Isabel-Cameron County Airport (PIL), Port Isabel, Texas. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the airplane's co-owner, about 1530, the pilot asked him if he'd like to perform some touch and go landings at PIL. The co-owner stated he could not go on the flight and had no further communication with the pilot.

Air traffic control radar data showed that the airplane departed runway 13 about 1943. After takeoff, the pilot conducted one left traffic pattern flight. Whether the pilot subsequently performed a touch-and-go or a go-around could not be determined from the radar data. The airplane then turned left crosswind for runway 13, and the last radar target indicated that the airplane was at 250 ft above ground level and 125 knots ground speed. There were no witnesses to the accident.

The airplane wreckage was located on March 1, 2020.

Pilot Information

Certificate:	Private	Age:	79, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	November 28, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	August 26, 2019
Flight Time:	(Estimated) 229 hours (Total, all aircraft), 53 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N407WJ
Model/Series:	150 M	Aircraft Category:	Airplane
Year of Manufacture:	1974	Amateur Built:	
Airworthiness Certificate:	Utility	Serial Number:	15075783
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	December 1, 2019 Annual	Certified Max Gross Wt.:	1760 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	5478.78 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-320-E2D
Registered Owner:	Hollye Cloud	Rated Power:	100 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:	PIL, 18 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	19:53 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.36 inches Hg	Temperature/Dew Point:	13°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Port Isabel, TX	Type of Flight Plan Filed:	None
Destination:	Port Isabel, TX	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

Airport Information

Airport:	Port Isabel-Cameron County PIL	Runway Surface Type:	Asphalt;Concrete
Airport Elevation:	18 ft msl	Runway Surface Condition:	Dry
Runway Used:	13	IFR Approach:	None
Runway Length/Width:	8001 ft / 200 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	26.165832,-97.330276(est)

Postaccident examination revealed that the airplane impacted mesquite trees and terrain, and a postimpact fire ensued. The outboard 8 ft of the left wing and portions of the nose landing gear were located near the initial impact point. The wreckage was distributed along a 20° heading and measured about 120 ft in length. The cockpit, fuselage, right wing, engine, and empennage were consumed by fire. The left wing exhibited leading edge crush damage. Flight control cable continuity was established from the cockpit to all flight control surfaces. The flap actuator was thermally damaged, and a position could not be determined.

The engine and accessories were thermally damaged, and the propeller would not rotate. The cylinders were visually examined using a borescope and displayed normal operating signatures. One propeller blade was bent aft, and one propeller blade was twisted in the direction of rotation. Both propeller blades were partially consumed by fire. Two tree branches displayed 45° cuts.

Examination of the airframe and engine revealed no anomalies that would have precluded normal operation.

Medical and Pathological Information

The Cameron County Forensic Pathology, Harlingen, Texas, performed an autopsy on the pilot. His cause of death was listed as blunt force trauma. Toxicology testing performed at the Federal Aviation

Administration Forensic Sciences Laboratory identified delta-9-THC (the primary psychoactive component in marijuana), its inactive metabolite carboxy-Delta-9-THC, and its active metabolite 11-Hydroxy-Delta-9-THC in urine, liver, and lung. Levels of delta-9-THC were 1.5 ng/ml, 2.9 ng/gm, and 39.4 ng/gm respectively. No blood was available for testing.

The marijuana plant contains chemicals called cannabinoids; delta-9-THC is the primary psychoactive cannabinoid compound. Significant performance impairments are usually observed for at least 1-2 hours following marijuana use, and residual effects have been reported up to 24 hours. However, it is difficult to relate blood levels of delta-9-THC to effects and there is no mechanism for relating levels in any other specimens to psychoactive effects.

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Clifford Carpenter; FAA; San Antonio, TX Casey Love; Textron Aviation; Wichita, KS Troy Helgeson; Lycoming Engines; Williamsport, PA
Original Publish Date:	March 11, 2022
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=101017

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).