



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Seguin, Texas	Accident Number:	WPR22FA264
Date & Time:	July 22, 2022, 18:45 Local	Registration:	N8542W
Aircraft:	Piper PA-28-235	Aircraft Damage:	Destroyed
Defining Event:	Loss of control in flight	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot departed from a grass strip for a personal cross-country flight with a passenger. Radar data and the location of the accident site indicate the airplane made a left turn after takeoff and descended into trees, coming to rest about ¼ mile from the airport. The data also showed the airplane's airspeed decreased after takeoff. The airplane was destroyed by impact forces and postimpact fire.

The day before the accident flight, a resident of the airpark reported that the accident airplane had stopped near their residence located near the departure end of runway 14. The pilot had said to the resident that his cowling had opened and that he needed to secure it before taking off. The airplane departed a few minutes later and returned to the airport about 45 minutes later. On the day of the accident, the passenger reported to a friend during a video chat that the pilot had trouble starting the engine before the flight and the friend could see that the engine cowling was open. In addition, photos of the airplane taken during its takeoff roll showed that the right aft edge of the engine cowling was not flush with the fuselage.

Given the recurring problem with the cowling latch, it is likely the latch was not properly secured during the preflight, which allowed it to open during the flight. The pilot likely became distracted with the opened engine cowling, which then led to a loss of control in flight.

Toxicology testing revealed that the pilot had used cannabis, but whether he was experiencing effects of the drug at the time of the accident could not be determined. The potentially sedating antihistamine cetirizine was also detected in the pilot, but testing was unable to determine if it was at therapeutic levels and therefore more likely to cause any side effects. Thus, this investigation was unable to determine if effects from the pilot's use of cannabis and cetirizine were a factor in this accident.

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 adequate airspeed while maneuvering at a low altitude after being distracted when the engine cowling opened during flight, which led to a loss of control and subsequent impact with terrain. Contributing to the accident was the failure of the pilot to conduct an adequate preflight inspection.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Airspeed - Not attained/maintained
Aircraft	(general) - Inadequate inspection
Personnel issues	Identification/recognition - Pilot
Personnel issues	Preflight inspection - Pilot

Factual Information

History of Flight

Maneuvering	Part(s) separation from AC
Maneuvering	Miscellaneous/other
Maneuvering	Loss of control in flight (Defining event)
Maneuvering	Collision with terr/obj (non-CFIT)

On July 22, 2022, about 1845 central daylight time, a Piper PA-28-235 airplane, N8542W, was destroyed when it was involved in an accident near Seguin, Texas. The pilot and passenger were fatally injured. The airplane was operated by the pilot as a Title 14 *Code of Federal Regulations* Part 91 personal cross-country flight.

The accident flight departed Elm Creek Airpark (OTX6), Seguin, Texas, with a reported destination of Natchitoches Regional Airport (IER), Natchitoches, Louisiana. Radar track data revealed a track consistent with the accident airplane departing runway 14 at OTX6 and then entering a left turn. The accident site is about 1/4 mile east of OTX6 and about 1,000 ft east of the last radar hit. Airspeed data showed a decreasing airspeed from 64 knots (ground speed) to 54 knots at the last radar hit. Altitude could not be determined from the target data available. The airplane struck trees and impacted terrain shortly after the left turn, after which a postimpact fire ensued.

A friend of the passenger reported that he was in contact with the passenger via a video call before the airplane departed on the evening of the accident flight. The passenger stated that they were having maintenance issues and that the pilot could not get the engine started. During the video conversation, the friend could see that the engine cowling was open. The exact maintenance issues with the airplane were not discussed. A photo was also taken by the passenger that showed the right side of the airplane, with the pilot on the wing near the open airplane entry door. Additionally, the photo showed that the engine cowling's right side aft latch appeared not flush with the cowling and the aft edge of the cowling was not flush with the fuselage. Shortly after, another photo of the airplane was captured by a local resident as it crossed in front of his hangar, about 400 ft down runway 14 after it started its departure roll. The photo shows that the right-side upper cowling appears as if it was not secured. The day before the accident flight, a resident of the airpark reported that the accident airplane had stopped near their residence located near the departure end of runway 14. The pilot had said to the resident that his cowling had opened and that he needed to secure it before taking off. The airplane departed a few minutes later and returned to the airport about 45 minutes later.

Examination of the accident site revealed that a postaccident fire occurred consuming some of the wreckage. All major structural components of the airplane were located. The upper engine cowling and portions of the lower cowling were located furthest in the debris field. The four cowling latches and fasteners remained attached to the upper cowling. The left cowling latch and fasteners remained attached to the receiver ends of the thermally damaged sections of the lower cowling. The right cowling latch and fasteners were intact and not attached to their corresponding receiver ends on the lower cowling. The aft latch assembly was bent. The right lower cowling fastener receivers were not found during the examination. Postaccident examination of the airframe and engine revealed no evidence of any preimpact mechanical malfunctions or failures that would have precluded normal operation.

Toxicology testing performed at the Federal Aviation Administration Forensic Sciences Laboratory found Tetrahydrocannabinol (THC) was detected in the pilot. 11-hydroxy-THC (11-OH-THC) was also detected in blood and urine, but not in his lung tissue. Carboxy-delta-9-THC (THC-COOH) was detected in the pilot's lung tissue and in his urine. The antihistamine cetirizine was detected in the pilot's blood, urine and in his liver tissue. The generally non-impairing substances acetaminophen, atorvastatin, sildenafil, desmethylsildenafil, loratadine, and desloratadine were detected in the pilot's urine and/or liver tissue; acetaminophen was also detected in his chest blood.

Commented [1]:

Pilot Information

Certificate:	Private	Age:	66, 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:	
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	April 27, 2022
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	315 hours (Total, all aircraft)		

Passenger Information

Certificate:		Age:	Female
Airplane Rating(s):		Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	Unknown
Instrument Rating(s):		Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8542W
Model/Series:	PA-28-235	Aircraft Category:	Airplane
Year of Manufacture:	1963	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	28-10043
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:		Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	O-540 SERIES
Registered Owner:	On file	Rated Power:	250 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:	KBAZ,648 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	18:51 Local	Direction from Accident Site:	347°
Lowest Cloud Condition:	Few / 8500 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	Unknown / Unknown
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	Unknown / Unknown
Altimeter Setting:	29.89 inches Hg	Temperature/Dew Point:	37°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Seguin, TX	Type of Flight Plan Filed:	None
Destination:	Natchitoches, LA (IER)	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	Elm Creek Airpark OTX6	Runway Surface Type:	Grass/turf
Airport Elevation:	550 ft msl	Runway Surface Condition:	Dry;Vegetation
Runway Used:	14	IFR Approach:	None
Runway Length/Width:	1925 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-ground
Ground Injuries:		Aircraft Explosion:	Unknown
Total Injuries:	2 Fatal	Latitude, Longitude:	29.502565,-97.991575

Administrative Information

Investigator In Charge (IIC):	Swick, Andrew
Additional Participating Persons:	Troy Helgeson; Textron Lycoming; Denver, CO Jon Hirsch; Piper Aircraft; Wichita, KS Christian Morales; FAA-FSDO; San Antonio, TX
Original Publish Date:	April 25, 2024
Last Revision Date:	
Investigation Class:	Class 3
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=105551

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