

Aviation Investigation Preliminary Report

Location:	Christoval, TX	Accident Number:	CEN24FA064
Date & Time:	December 14, 2023, 12:18 Local	Registration:	N188PC
Aircraft:	Pilatus PC-12/45	Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On December 14, 2023, about 1218 central standard time (CST), a Pilatus PC-12/45, N188PC, was destroyed when it was involved in an accident near Christoval, Texas. The pilot, one passenger, and three pets were fatally injured. The flight was conducted under 14 *Code of Federal Regulations* Part 91 as a personal flight.

Federal Aviation Administration (FAA) air traffic control (ATC) recordings and automatic dependent surveillance – broadcast (ADS-B) data revealed that the airplane had departed Jacksonville Executive at Craig Airport (CRG), Jacksonville, Florida, about 0751 CST, and was en route to San Angelo Regional Airport (SJT), San Angelo, Texas. The pilot was receiving radar vectors for the RNAV (GPS) runway 36 approach to SJT and was level about 4,300 ft mean sea level (msl). About 1211, the pilot reported to ATC that the tops of the clouds were variable between 4,100 ft and 4,400 ft msl.

At 12:17:24, ATC stated, “turn right heading 030 maintain 4,300 [ft msl] until established on the final approach course, cleared RNAV 36 approach”

At 12:17:32, the flight track passed through the final approach course and continued a shallow right turn

At 12:17:36, the pilot stated “we overshot it”

At 12:17:39, ATC stated “I know that’s why a gave you a 030”

At 12:17:40, the flight track began a right descending turn about 1,000 fpm

At 12:17:44, the descent rate was about 5,000 fpm and the right turn steepened

At 12:17:47, the pilot stated “we got a problem” and was the final recorded transmission from the accident airplane

At 12:17:49, the flight track continued in a steep right turn with a descent rate about 15,000 fpm

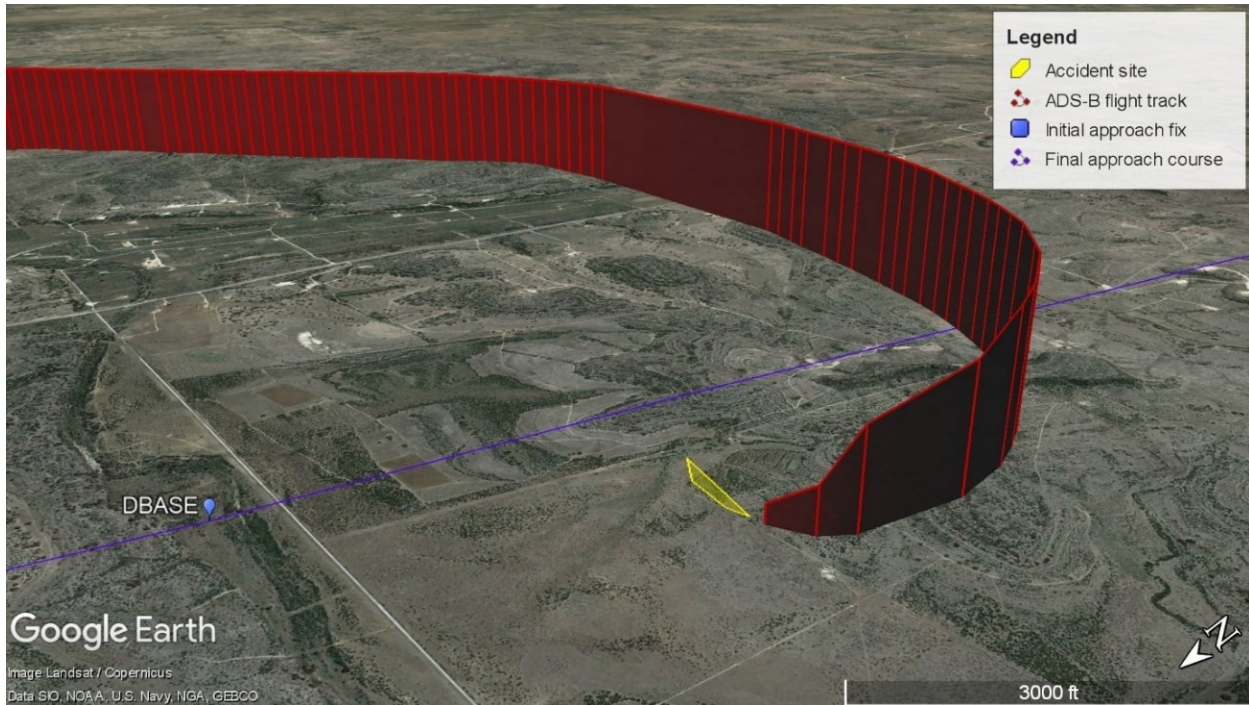


Figure 1. Google Earth view of the accident area with the ADS-B flight track, the RNAV (GPS) runway 36 initial approach fix “DBASE”, and the 002° final approach course.

The airplane impacted trees and terrain about 15 miles south of SJT and the wreckage debris was aligned on a 100° magnetic heading. The initial impact point was defined by a small tree that was cut at a 24° angle slanted down toward south and surrounded by small wreckage debris, which included pieces of the right wing tip and a green navigation light. The initial ground impact crater was immediately adjacent to the tree, measured about 1 ft deep by 20 ft long, and contained a lot of small wreckage debris and one propeller blade. The main wreckage was located about 500 ft to the east of the initial impact area. A large section of the left wing remained mostly intact and was found on the right side of the debris field near the main wreckage. The area between the initial impact and the main wreckage contained a significant amount of airplane parts and wreckage debris. The main portion of the engine was located about 870 ft from the initial impact area. The farthest piece of wreckage was a main landing gear tire that was located about 1,320 ft from the initial impact. Several portions of the wreckage sustained thermal damage and contained black soot.

The engine components exhibited torsional deformation and rotational signatures. The propeller impact-separated from the engine with the propeller shaft and associated reduction gearbox bearings still attached. The cylinder, piston, and feathering spring assembly impact-separated from the propeller hub and were found near the propeller assembly about 50 ft from the engine. The propeller assembly and two blades remained attached and two of the four

blades impact-separated from the propeller assembly. One blade fractured from the blade retention pocket and was found in the initial impact crater. The other blade fractured at the shank and was found just east of the initial impact crater in the debris field. All four blades exhibited chordwise rotational scoring, leading edge gouges, and compound bend and twist signatures.

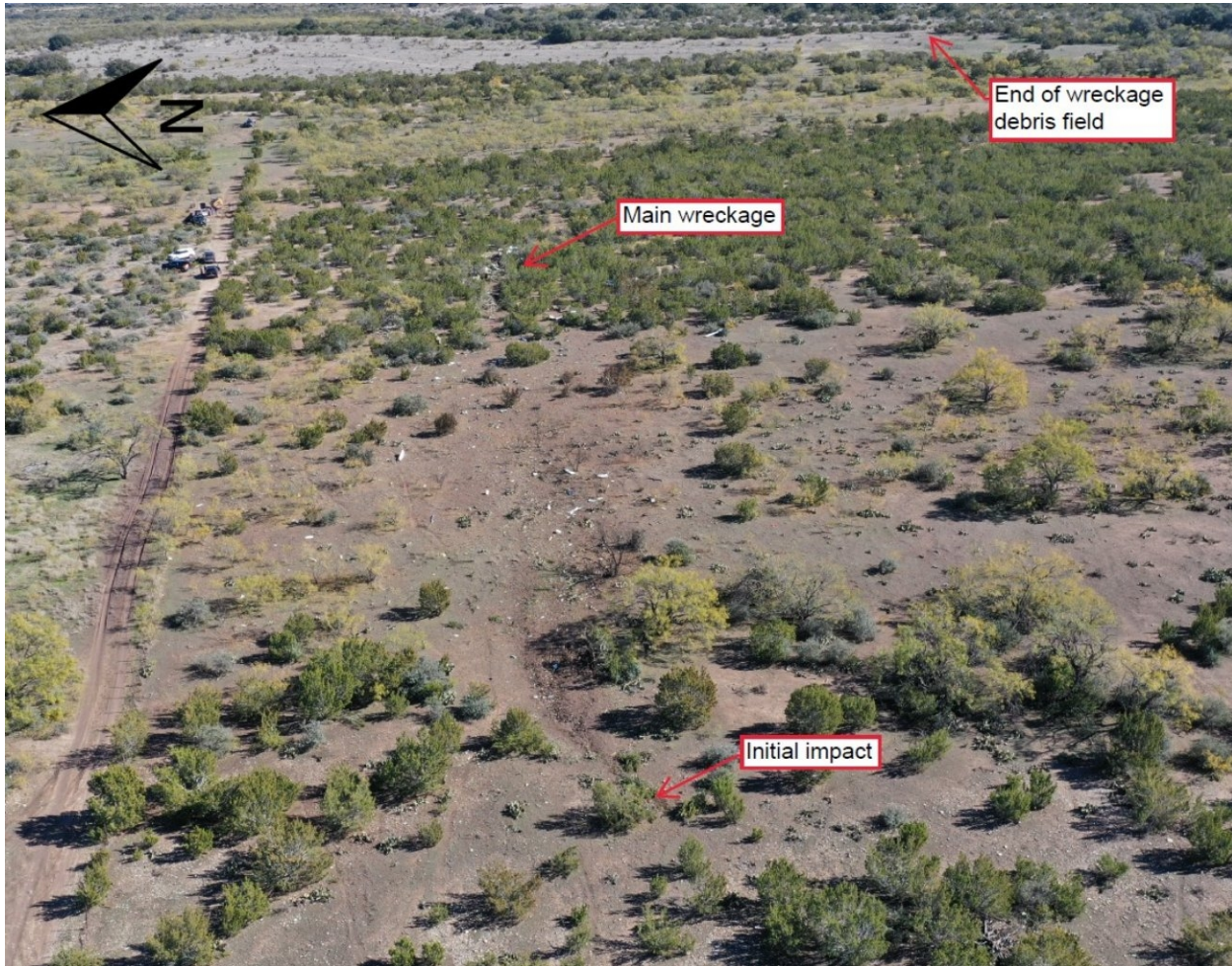


Figure 2. Aerial image of the accident site facing east. The initial impact area, main wreckage, and end of the wreckage debris field are labeled in red.

The archived meteorological information and the accident pilot’s report to ATC revealed that the airplane was likely in instrument meteorological conditions (IMC) during the approach. There was potential for turbulence in clouds, no icing below 11,000 ft, and no significant precipitation noted.

Maintenance records revealed that the airplane had undergone an annual inspection which was completed on November 22, 2023, at aircraft total time 3,990.1 hours.

The pilot’s electronic flight logbook revealed that in the last year he had accumulated about 111 hours in the accident airplane, of which 16.3 hours were logged in actual IMC.

In 2020, the airplane was upgraded with Garmin avionics and components that included two Garmin G600TXi touchscreen flight displays, two Garmin GTN750Xi flight navigators, a Garmin GI275 electronic attitude indicator, and a Garmin GMC 605 autopilot controller. These devices were located in the wreckage and were sent to the NTSB Vehicle Recorders Laboratory for examination and data extraction.

The wreckage was retained for further examination and testing.

Aircraft and Owner/Operator Information

Aircraft Make:	Pilatus	Registration:	N188PC
Model/Series:	PC-12/45	Aircraft Category:	Airplane
Amateur Built:			
Operator:	On file	Operating Certificate(s) Held:	None
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:	IMC	Condition of Light:	Day
Observation Facility, Elevation:	KSJT,1911 ft msl	Observation Time:	11:51 Local
Distance from Accident Site:	15 Nautical Miles	Temperature/Dew Point:	10°C /8°C
Lowest Cloud Condition:		Wind Speed/Gusts, Direction:	6 knots / , 100°
Lowest Ceiling:	Overcast / 1100 ft AGL	Visibility:	10 miles
Altimeter Setting:	30.31 inches Hg	Type of Flight Plan Filed:	IFR
Departure Point:	Jacksonville, FL (CRG)	Destination:	San Angelo, TX (SJT)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	31.100508,-100.54491

Administrative Information

Investigator In Charge (IIC): Lindberg, Joshua

Additional Participating Persons: Corey Wehmeyer; Federal Aviation Administration; Lubbock, TX
Les Doud; Hartzell Propeller Inc.; Piqua, OH
Markus Kohler; Pilatus Aircraft Ltd. ; Stans
Mike Hodge; Pratt & Whitney Canada; Bridgeport, WV
Florian Reitz; Swiss Transportation Safety Investigation Board
Beverley Harvey; Transportation Safety Board of Canada

Investigation Class: [Class 3](#)

Note: