Aviation Investigation Final Report

Location:	French Lick, Indiana	**Accident Number:**	ERA22FA386
Date & Time:	August 27, 2022, 20:58 Local	**Registration:**	N8741A
Aircraft:	Beech B35	**Aircraft Damage:**	Destroyed
Defining Event:	Loss of control on ground	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was returning to his home airport at the conclusion of a cross-country flight and was attempting to make a visual approach to land at night. A review of radar data revealed the airplane overflew the airport about 500 ft above the ground before making a sweeping, descending left turn onto final approach before the data ended 0.2 miles from the end of the runway. At that time, the airplane was traveling at a groundspeed of about 86 knots at an altitude of about 33 ft above ground level (agl). Airport surveillance video captured the airplane on landing rollout. The airplane was observed departing the left side of the runway before it started a climb and impacted trees. Postaccident examination of the airplane and the engine revealed no evidence of any pre-impact mechanical deficiencies or malfunctions that precluded normal operation. The pilot's autopsy examination and postaccident toxicological findings did not reveal any medical factors that would have resulted in the pilot becoming suddenly impaired or incapacitated.

Based on the available radar data, the pilot had not stabilized the airplane during the approach to the runway and was at a critically low altitude when the airplane was .2 miles from the end of the runway. Surveillance video also suggested the airplane was not stabilized after it touched down. Visible tire marks on the runway confirmed that it departed the left side of the runway during the landing rollout. The pilot may have attempted to regain control of the airplane after the unstabilized approach, touchdown, and runway excursion by attempting to abort the landing; however, the airplane subsequently collided with trees. Based on this information it is likely that the pilot performed an un stabilized approach that resulted in a loss of directional control during landing, ultimately resulting in a runway excursion and collision with trees.

Probable Cause and Findings

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

The pilot's failure to make a stabilized approach, which resulted in a loss of directional control during landing.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Descent/approach/glide path - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Aircraft	Directional control - Not attained/maintained

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-aborted after touchdown	Collision during takeoff/land

HISTORY OF FLIGHT

On August 27, 2022, about 2058 eastern daylight time, a Beech B35, N8741A, was destroyed when it was involved in an accident near French Lick, Indiana. The airline transport pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot departed Fischer's Airport (6LL6), New Memphis, Illinois, about 1950, and flew to French Lick Municipal Airport (FRH), French Lick, Indiana, his home airport. A review of radar data revealed that as the airplane approached FRH, it made a right turn flying south toward the departure end of runway 26 about 500 ft above the ground (agl), then turned right flying on the south side of runway 08/26 before crossing at midfield. The airplane then made a sweeping, descending left turn onto the final approach for runway 08. The radar data stopped when the airplane was about .2 miles from the end of the runway. At that time, the airplane was traveling about 86 knots at an altitude of about 33 ft agl.

Airport surveillance captured the airplane touch down on runway 08 then depart the runway surface to the left before becoming airborne and impacting trees just outside of the perimeter fence. A large explosion was also observed.

PILOT INFORMATION

The pilot held an airline transport pilot rating for airplane multiengine land and a commercial pilot certificate for airplane single-engine land. His last Federal Aviation Administration (FAA) first-class medical examination was conducted on January 8, 2004. At that time, he reported a total of 14,000 flight hours.

AIRPLANE INFORMATION

A review of the airframe maintenance logbooks revealed the last annual inspection was conducted on January 10, 2020, at a total airframe time of 5,202 hours. The engine received a 100-hour inspection on this same date. At that time, the engine had accrued a total of 3,325 hours and 1,774 hours since overhaul.

WRECKAGE INFORMATION

Witness marks on the runway were visible consistent with the left main wheel touching down 1,036 ft past the runway threshold. About 29 ft beyond those witness marks were additional witness marks consistent with the nose gear and right main gear touching down. Those marks remained on the runway for 165 ft until they exited the runway onto the grass, consistent with the airplane departing the runway at that point. Once in the grass the witness marks extended another 109 ft on a heading of 055° before ending, consistent with the airplane becoming airborne and impacting trees north of the perimeter fence.

The airplane was located in a wooded area on a magnetic heading of 180° at an elevation of 768 ft. mean sea level (msl). The right wing impacted a tree about midspan, then impacted terrain and came to rest upright. All components of the airplane were accounted for at the accident site. A postimpact fire consumed the cabin, instrument panel, most of the fuselage, and the inboard portion of both wings by the fuel tanks. The engine also sustained extensive fire/heat damage and was partially separated from the firewall.

Control cable continuity was established for all flight controls from the control surface to the cockpit. The aileron balance cable and elevator trim tab nose up cable exhibited thermal damage. The nose landing gear separated during the impact sequence. The left main landing gear was in the down and locked position. The right main landing gear was extended but not locked.

The engine was removed from the airframe but the crankshaft could not be rotated due to thermal damage. The pressure carburetor, accessory housing, oil sump, fuel pump and vacuum pump were consumed by fire. The top spark plugs were removed from each cylinder for examination and were dark gray or black in color. Neither magneto could be operationally tested due to thermal damage.

Both propeller blades were found at the accident site; one blade was curled aft at the tip and remained secure in the hub. The second propeller blade was separated from the hub and exhibited S-bending of the outer 1/3 of the blade.

Postaccident examination of the airplane and the engine revealed no evidence of any pre-impact mechanical deficiencies or malfunctions that precluded normal operation.

MEDICAL AND PATHOLOGICAL INFORMATION

According to the autopsy performed for the Orange County Coroner, Paoli, Indiana, the pilot's final diagnoses included aircraft crash with flash fire eruption and smoke inhalation and severe incineration. The forensic pathologist reported that the pilot had soot in his trachea, bronchus, and lung and had 50% occlusion of his left anterior descending coronary artery.

Toxicology testing performed by the Federal Aviation Administration (FAA) Forensic Sciences Laboratory reported the pilot's carboxyhemoglobin saturation in heart blood was 20%. Cyanide was also detected at 2.97 micrograms per milliliter in his heart blood and timolol was detected in his urine. Timolol is non-impairing high blood pressure medication.

ADDITIONAL INFORMATION

The FAA Safety Team issued a safety briefing titled Stabilized Approach and Landing in 2022. The safety briefing stated, “Focusing on establishing and maintaining a stabilized approach and landing is a great way to avoid experiencing a loss of control. A stabilized approach is one in which the pilot establishes and maintains a constant angle glidepath towards a predetermined point on the landing runway. It is based on the pilot’s judgment of certain visual clues, and depends on the maintenance of a constant final descent airspeed and configuration.”

Pilot Information

Certificate:	Airline transport	**Age:**	76,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Unknown
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:	None None	**Last FAA Medical Exam:**	January 8, 2004
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	14000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N8741A
Model/Series:	B35	**Aircraft Category:**	Airplane
Year of Manufacture:	1950	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	D-2254
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	January 10, 2020 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	5202 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed	**Engine Model/Series:**	E-185
Registered Owner:	On file	**Rated Power:**	205 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:	HNB,529 ft msl	**Distance from Accident Site:**	21 Nautical Miles
Observation Time:	21:56 Local	**Direction from Accident Site:**	224°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:		**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	29.96 inches Hg	**Temperature/Dew Point:**	25°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	New Memphis, IL (6LL6)	**Type of Flight Plan Filed:**	None
Destination:	French Lick, IN	**Type of Clearance:**	Unknown
Departure Time:	19:00 Local	**Type of Airspace:**	Unknown

Airport Information

Airport:	FRENCH LICK MUNI FRH	**Runway Surface Type:**	Asphalt
Airport Elevation:	792 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	08	**IFR Approach:**	None
Runway Length/Width:	5500 ft / 100 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	N/A	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	38.506111,-86.640833

Administrative Information

Investigator In Charge (IIC):	Read, Leah
Additional Participating Persons:	Jennifer Barclay; Textron Aviation Inc; Wichita Kurt Gibson; Textron Aviation Inc; Wichita, KS Louis Soto; FAA-FSDO; Indianaplois, IN Christopher Johnson; FAA-FSDO; Indianapolis, IN
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