Aviation Investigation Preliminary Report

Location:	Little Rock, AR	**Accident Number:**	CEN23FA113
Date & Time:	February 22, 2023, 11:56 Local	**Registration:**	N55PC
Aircraft:	Beech B200	**Injuries:**	5 Fatal
Flight Conducted Under:	Part 91: General aviation - Business		

On February 22, 2023, about 1156 central standard time (CST), a Beech 200 airplane, N55PC, was destroyed when it was involved in an accident near the Bill and Hillary Clinton International Airport (LIT), Little Rock, Arkansas. The commercial pilot and 4 passengers sustained fatal injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 business flight.

The flight was intended to transport Consulting Toxicology and Environmental Health (CTEH) emergency workers from Little Rock, Arkansas, to Columbus, Ohio, in response to an alloy plant explosion in Bedford, Ohio. The airplane was owned and operated by CTEH.

At 11:51:16, the pilot requested taxi clearance with Automatic Terminal Information Service (ATIS), which included a Low Level Wind Shear (LLWS) advisory alert. At 11:51:33, ground air traffic control (ATC) issued clearance to the pilot to taxi to Runway 18 via taxiway “Alpha.” At 11:53:07, tower ATC transmitted another LLWS advisory alert. At 11:53:21 ground ATC transmitted another LLWS advisory alert. At 11:54:47, the pilot requested takeoff clearance from runway 18 on tower frequency. At 11:54:55, tower ATC cleared the pilot for takeoff. At 11:55:06, the pilot acknowledged the takeoff clearance. There were no other transmissions from the pilot after takeoff, and no distress calls were heard from the pilot on any frequency.

A video surveillance camera, located on the ramp perpendicular to runway 18, showed the airplane takeoff from runway 18 and begin an initial climb to the south. The takeoff and initial climb appeared normal. Just as the airplane went out of sight, the camera recorded a rising plume of smoke about 1-mile south of the departure end of runway 18. Shortly after the plume of smoke, the camera appeared to shake from wind, and recorded blowing debris and heavy rain on the ramp where the camera was located. Note: Just before and during takeoff, the camera showed that the ramp was dry with no rain or noticeable wind.

These two weather reports from LIT (listed below) show that what the camera recorded was consistent with changing/deteriorating weather conditions from the time of taxi, takeoff, and the accident.

At 1153 CST, LIT reported a wind from 210° at 19 knots with gusts to 27 knots, visibility of 10 statute miles or greater, ceiling broken at 4,800 ft agl and overcast clouds at 6,000 ft agl, remarks: peak wind 220° at 36 knots at 1121 CST.
At 1202 CST, LIT reported a wind from 300° at 22 knots with gusts to 40 knots, light rain, visibility of 2 statute miles, light rain, scattered clouds at 3,600 ft agl, ceiling overcast at 4,700 ft agl, and wind shift at 1148 CST.

Also, weather radar imagery showed a front moving from west to east just before the takeoff. See Figure 1.

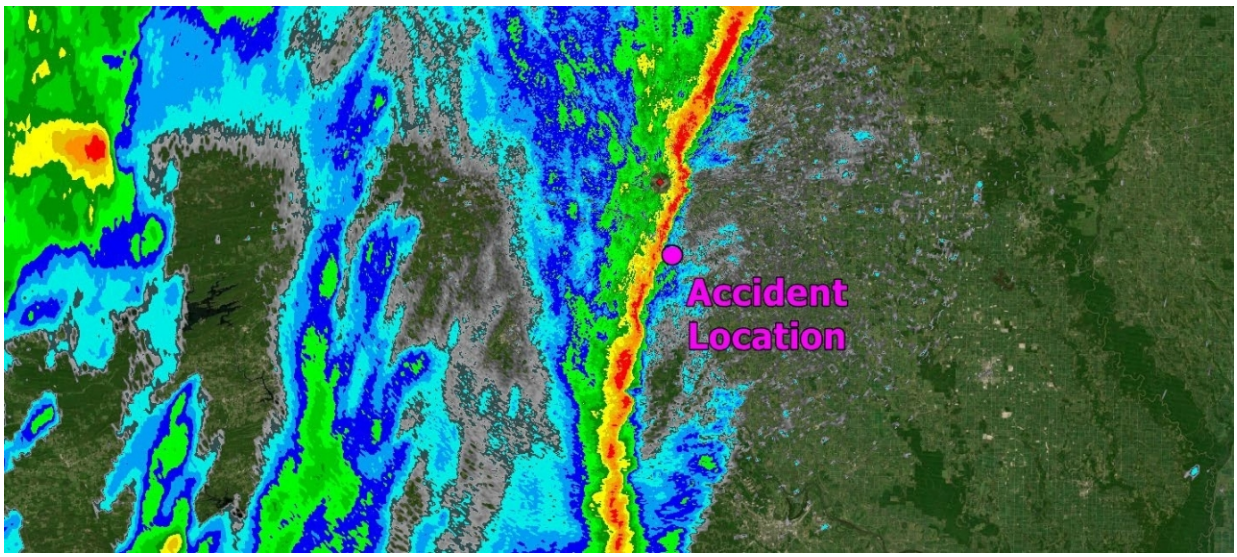

Figure 1. The weather radar imagery from about the accident time depicts the accident location (pink dot) coincident with a convective line moving from west to east.

The airplane wreckage was found amidst heavily wooded terrain adjacent to a 3M factory, about 1-mile south of the departure end of runway 18. See Figure 2.

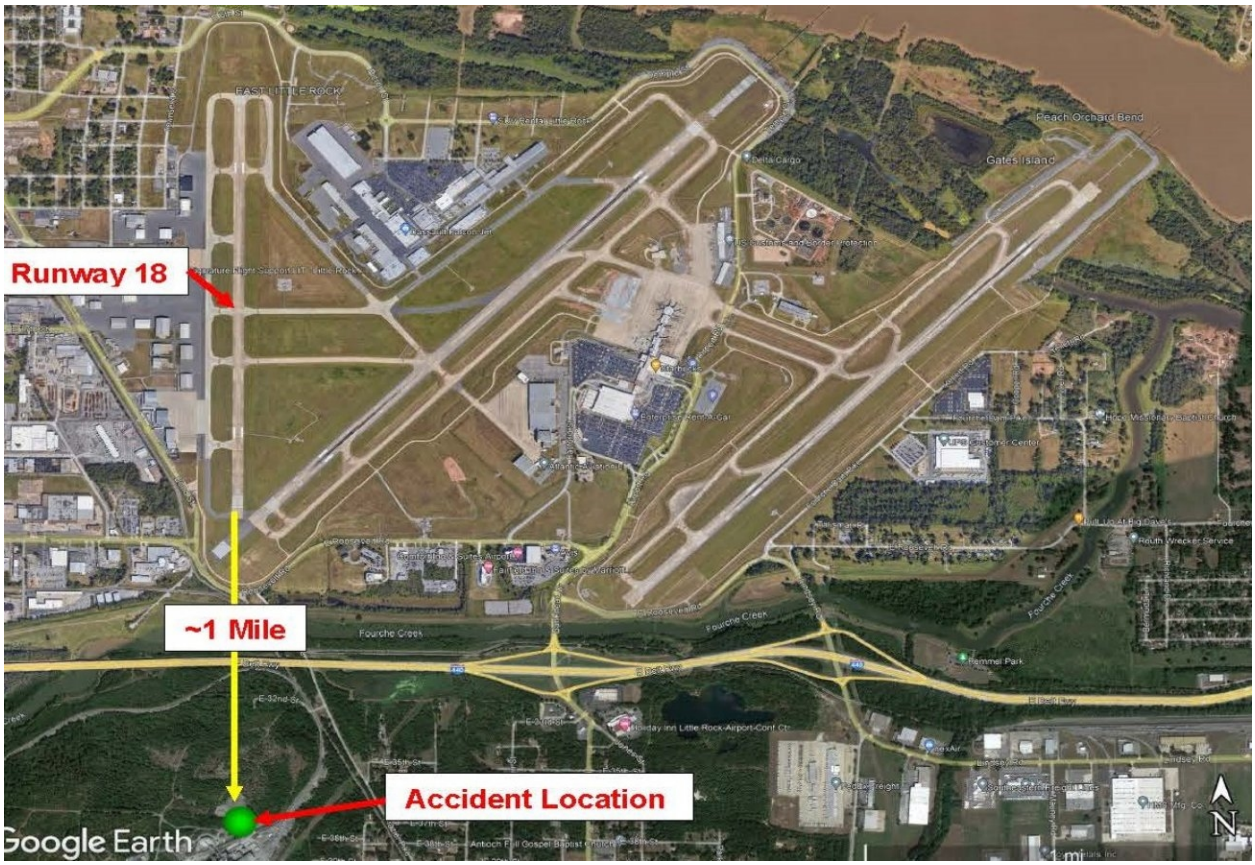

Figure 2. Accident location (green dot) in reference to runway 18.

A video surveillance camera located at the 3M plant showed the airplane impact the ground in a right-wing-low, nose down attitude. The video also showed heavy rain and blowing debris near the impact area.

Examination of the accident site showed that most of the airplane was consumed by a post-impact fire. Several large tree branches (8-10 inches in diameter) were found completely cut at about a 45° angle with paint transfers, consistent with propeller blade strikes. Detailed examination of the airframe was conducted at the accident site. All the airplane structure and flight control surfaces were identified, and flight control continuity was confirmed. All cockpit instrumentation displayed extreme thermal damage and functionality could not be verified. Other than severe impact and thermal damage, no pre-impact airframe anomalies were identified.

Both engine and propeller assemblies were recovered to a secure hangar at LIT. Detailed examinations of the engines did not reveal any pre-impact anomalies. Both left and right engines displayed symmetrical impact damage, including torsional twisting of the engine cases and rotational damage of their respective turbine and compressor sections, consistent with power at impact.

Detailed examination of both propeller assemblies did not show any pre-impact anomalies. Both left and right propeller shafts showed torsional separations, consistent with powered rotation at impact. Disassembly of the left and right propeller hubs showed that the right and left propeller blades exhibited impact damage consistent with rotation. Signatures of power included tip fractures and forward bending in the thrust direction.

Manifest records of the passengers and equipment provided by CTEH, refueling records, and a current weight and balance sheet were used to estimate the takeoff weight of the airplane. The estimate showed that the airplane was about 300 pounds under its maximum gross takeoff weight at the time of takeoff.

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	**Registration:**	N55PC
Model/Series:	B200	**Aircraft Category:**	Airplane
Amateur Built:			
Operator:		**Operating Certificate(s) Held:**	None
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:	VMC	**Condition of Light:**	Day
Observation Facility, Elevation:	KLIT,251 ft msl	**Observation Time:**	12:02 Local
Distance from Accident Site:	1 Nautical Miles	**Temperature/Dew Point:**	19°C /13°C
Lowest Cloud Condition:	Scattered / 3600 ft AGL	**Wind Speed/Gusts, Direction:**	22 knots / 40 knots, 300°
Lowest Ceiling:	Overcast / 4700 ft AGL	**Visibility:**	2 miles
Altimeter Setting:	29.68 inches Hg	**Type of Flight Plan Filed:**	IFR
Departure Point:	Little Rock, AR (LIT)	**Destination:**	Columbus, OH (CMH)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	4 Fatal	**Aircraft Fire:**	On-ground
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	5 Fatal	**Latitude, Longitude:**	34.708054,-92.237662 (est)

Administrative Information

Investigator In Charge (IIC):	Lemishko, Alexander
Additional Participating Persons:	Paul Centenaro; Flight Standards District Office; Little Rock, AR Ernie Hall; Textron Aviation; Wichita, KS Les Doud; Hartzell; Piqua, OH
Note:	