



# Aviation Investigation Preliminary Report

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|--------------------------------|--------------------------------------|-------------------------|------------|
| <b>Location:</b>               | Ronkonkoma, NY                       | <b>Accident Number:</b> | ERA24FA318 |
| <b>Date &amp; Time:</b>        | July 22, 2024, 18:12 Local           | <b>Registration:</b>    | N1089W     |
| <b>Aircraft:</b>               | Beech A36                            | <b>Injuries:</b>        | 2 Fatal    |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Personal |                         |            |

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On July 22, 2024, at 1812 eastern daylight time, a Beech A36 airplane, N1089W, was substantially damaged when it was involved in an accident near Ronkonkoma, New York. The private pilot and passenger were fatally injured. The airplane was operated as a Title 14 Code of Federal Regulations Part 91 personal flight.

The pilot was departing from Long Island Mac Arthur Airport (ISP), Islip, New York, and taxied from the ramp via taxiways C to B to join runway 24 for an intersection takeoff at the 4,100 ft-remaining point of the 7,006 ft-long runway. Security video taken from a camera located at the airport terminal showed the airplane during the takeoff roll, liftoff, and initial climb, which all appeared normal. The landing gear retracted before the airplane disappeared out of the camera frame. Preliminary Automatic Dependent Surveillance-Broadcast (ADS-B) data provided by the Federal Aviation Administration (FAA) indicated that the takeoff roll was about 1,200 ft long prior to liftoff and that the groundspeed was about 82 kts during initial climb. Shortly after the landing gear were raised, the ground speed began to steadily decay to 62 kts before the airplane began a descending turn to the left. Figure 1 shows an aerial image of the ISP airport with the airplane's ground track overlaid.



Figure 1 - Preliminary ADS-B data with the airplane's track over runway 24 overlaid along with annotations of the airplane's ground speed.

Several witnesses stated that the takeoff appeared normal, but that as the airplane was climbing, they heard "sputtering" then a "loud pop." The airplane rolled to the left and impacted the terrain just off the paved runway threshold at an elevation of 106 ft. The wreckage path was oriented on a heading of about 165°. The initial impact and ground scar consisted of an 8 ft long gouge in the grass, followed by propeller slash marks in the ground, then a large crater that contained plexiglass and engine compartment pieces.

The airplane came to rest upright with the nose oriented towards the runway. The remaining portion of the left wing folded leading edge up against the left side of the fuselage with the flap and majority of the aileron still attached. The left main fuel tank was compromised and did not contain any fuel, nor did the wingtip tank; however, there was a large area under the fuselage and left side of the airplane that showed evidence of fuel spillage blight to the grass, and there was some blue fuel staining on the wing tank area. The right wing sustained some dents and minor deformation but was otherwise intact and the right main fuel tank contained about 20 gallons of fuel that had the consistency, scent, and color of 100LL aviation fuel. The wingtip tank contained about 2 gallons. The landing gear were in the retracted (up) position.

Flight control cable continuity was established from all of the flight control surfaces to their cockpit controls. The flap actuator extension measurements correlated to the flaps being in the retracted position. The elevator trim actuator measurements were consistent with the tabs being deflected 8° trailing edge down.

The propeller remained attached to the crankshaft. One blade exhibited a slight wave bend along its span, chordwise scrapes and polishing, and was bent aft about 30°. The other blade was bent uniformly aft about 40 degrees, and had minor chordwise scrapes and a tip gouge on the leading edge. The spinner was crushed inwards on one side and compressed on the hub. The propeller governor and control linkage were destroyed due to impact.

The engine's crankshaft was rotated manually, and powertrain and valvetrain continuity was confirmed throughout the engine. Compression was observed on all cylinders. A subsequent borescope examination of all six cylinders, pistons, and valves revealed no anomalies noted on the piston faces, valve faces, or interiors of the cylinders. No anomalies were noted on the camshaft lobes.

Fuel with the consistency, scent, and color of 100LL aviation fuel was recovered from each of the fuel distribution lines. The fuel injectors were free of any obstructions and the interior faces of all six fuel injectors appeared normal. The engine-driven fuel pump was actuated by power drill and produced suction and expulsion of fuel from a test can. The auxiliary boost pump switch in the cockpit was not damaged and found secured in the off position.

The fuel selector contained about 3 oz of fuel. The lever moved freely with smooth action and no hinderance or limitation to movement. Each of the detents were felt and low air pressure was used at each of the output/input lines with no obstructions observed.

The oil filter was opened revealing paper element pleats that appeared normal, and all components appeared to be well lubricated and there were no contaminants on the oil suction screen.

The six spark plugs displayed normal coloration and wear as compared to the Champion Check-A-Plug chart. Both left and right magnetos were placed on a magneto spark bench tester, yielding blue/purple sparks on all posts at multiple rpm settings.

The wreckage was retained for further examination.

### Aircraft and Owner/Operator Information

|                                  |         |                                       |          |
|----------------------------------|---------|---------------------------------------|----------|
| <b>Aircraft Make:</b>            | Beech   | <b>Registration:</b>                  | N1089W   |
| <b>Model/Series:</b>             | A36     | <b>Aircraft Category:</b>             | Airplane |
| <b>Amateur Built:</b>            |         |                                       |          |
| <b>Operator:</b>                 | On file | <b>Operating Certificate(s) Held:</b> | None     |
| <b>Operator Designator Code:</b> |         |                                       |          |

## Meteorological Information and Flight Plan

|   |                         |                                     |                  |
|---|-------------------------|-------------------------------------|------------------|
| <b>Conditions at Accident Site:</b>     | VMC                     | <b>Condition of Light:</b>          | Day              |
| <b>Observation Facility, Elevation:</b> | ISP,83 ft msl           | <b>Observation Time:</b>            | 17:56 Local      |
| <b>Distance from Accident Site:</b>     | 1 Nautical Miles        | <b>Temperature/Dew Point:</b>       | 26°C /21°C       |
| <b>Lowest Cloud Condition:</b>          | Scattered / 2800 ft AGL | <b>Wind Speed/Gusts, Direction:</b> | 7 knots / , 150° |
| <b>Lowest Ceiling:</b>                  | Broken / 3300 ft AGL    | <b>Visibility:</b>                  | 10 miles         |
| <b>Altimeter Setting:</b>               | 30.04 inches Hg         | <b>Type of Flight Plan Filed:</b>   |                  |
| <b>Departure Point:</b>                 | Ronkonkoma, NY          | <b>Destination:</b>                 |                  |

## Wreckage and Impact Information

|                            |         |                             |                      |
|----------------------------|---------|-----------------------------|----------------------|
| <b>Crew Injuries:</b>      | 1 Fatal | <b>Aircraft Damage:</b>     | Substantial          |
| <b>Passenger Injuries:</b> | 1 Fatal | <b>Aircraft Fire:</b>       | None                 |
| <b>Ground Injuries:</b>    | N/A     | <b>Aircraft Explosion:</b>  | None                 |
| <b>Total Injuries:</b>     | 2 Fatal | <b>Latitude, Longitude:</b> | 40.787868,-73.112479 |

## Administrative Information

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| <b>Investigator In Charge (IIC):</b>     | Mccarter, Lawrence  |
| <b>Additional Participating Persons:</b> | Tony Hershberger; Textron; Wichita, KS<br>John Harris; FAA/FSDO; Farmington, NY |
| <b>Investigation Class:</b>              | <a href="#">Class 3</a>   |
| <b>Note:</b>                             |   |