



# Aviation Investigation Final Report

<b>Location:</b>	Bloomsburg, Pennsylvania	<b>Accident Number:</b>	ERA22LA341
<b>Date &amp; Time:</b>	July 27, 2022, 15:15 Local	<b>Registration:</b>	N132HD
<b>Aircraft:</b>	Garlick OH-58A+	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Collision with terr/obj (non-CFIT)	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

During an aerial application flight while spraying a corn field, the helicopter’s tail section struck a powerline. The pilot did not see the powerline, which crossed over the middle of the cornfield perpendicular to the spray pass he was performing, but he knew what he had struck as soon as the helicopter came into contact with it. He had already begun to pull up out of the field when the helicopter struck the powerline and was still moving forward at approximately 50 mph. As the helicopter slowed and he reached about 200’ agl, the helicopter began a yaw to the right that developed into an uncontrollable spin in the same direction. As the helicopter began spinning faster and faster, the pilot rolled off throttle to minimize the torque induced rotations. During the touchdown, the helicopter impacted in an approximately level attitude, and then rolled over on its right side, and was substantially damaged. The pilot noted that there were no preimpact mechanical malfunctions or failures of the helicopter that would have precluded normal operation and that the accident could have been avoided if more “field recon” procedures were done to be certain that powerlines are avoided.

## Probable Cause and Findings

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

The pilot's inadequate preflight planning and visual lookout, which resulted in impact with a powerline.

## Findings

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<b>Personnel issues</b>	Flight planning/navigation - Pilot
<b>Personnel issues</b>	Identification/recognition - Pilot
<b>Environmental issues</b>	Wire - Awareness of condition

## Factual Information

### History of Flight

<b>Maneuvering-low-alt flying</b>	Collision with terr/obj (non-CFIT) (Defining event)
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### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	41, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	December 19, 2021
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	April 13, 2021
<b>Flight Time:</b>	5720 hours (Total, all aircraft), 2100 hours (Total, this make and model), 5425 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Garlick	<b>Registration:</b>	N132HD
<b>Model/Series:</b>	OH-58A+	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>	1972	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	41930
<b>Landing Gear Type:</b>	High skid	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	April 15, 2022 100 hour	<b>Certified Max Gross Wt.:</b>	3200 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	9030 Hrs at time of accident	<b>Engine Manufacturer:</b>	Allison
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	250 C20C
<b>Registered Owner:</b>		<b>Rated Power:</b>	420
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	Agricultural aircraft (137)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	MTQG

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KSEG,444 ft msl	<b>Distance from Accident Site:</b>	19 Nautical Miles
<b>Observation Time:</b>	18:53 Local	<b>Direction from Accident Site:</b>	238°
<b>Lowest Cloud Condition:</b>	Scattered / 4800 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 6000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.93 inches Hg	<b>Temperature/Dew Point:</b>	28°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Buckhorn, PA (None)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Bloomsburg, PA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:00 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	40.986111,-76.506667

## Preventing Similar Accidents

### Preventing Obstacle Collisions in Agricultural Operations

Accidents involving collisions with obstacles, including poles, wires, guy wires, meteorological evaluation towers (MET), or trees, are among the most common types of agricultural aircraft accidents. Some collisions involved obstacles that the pilots did not see (even during survey flights) but others involved obstacles that were known to the pilot and/or had characteristics that would make them visibly conspicuous.

Agricultural pilots should do the following:

- Maintain a quick-reference document (paper or electronic) at the operations base that contains field maps, charts, photographs, and details of all known obstacles.
- Frequently review current aeronautical charts for information about obstacles.

- Before leaving the ground, spend time becoming familiar with all available information about the target field and programming navigation equipment. Such preflight action can help reduce the potential for confusion or distraction in flight.
- Conduct aerial surveys of the target field but do not rely solely on an aerial survey to identify potential obstacles.
- Conduct regular ground surveys of fields. Some towers can be erected in hours, and obstacles can change since you last worked that field. Speak with farmers and land owners to raise awareness about obstacle hazards.
- When possible, use ground crews. They may be in a better position to see certain obstacles and help you ensure that your aircraft remains clear of them.
- Watch for shadows and irregularities in growth patterns to help identify obstacles. Use GPS and other technology to maintain awareness of obstacle locations.
- Be aware that workload, fatigue, sun glare, and distractions in the cockpit can adversely affect your ability to see, avoid, or remember obstacles. Heavier loads and higher density altitudes can affect the performance of your aircraft.

The National Agricultural Aviation Association's Professional Aerial Applicators' Support System reminds pilots that, when ferrying an aircraft or transitioning between sites, flying above 500 feet reduces obstacle collision risks: "Ferry Above Five and Stay Alive."

See [http://www.nts.gov/safety/safety-alerts/documents/SA\\_035.pdf](http://www.nts.gov/safety/safety-alerts/documents/SA_035.pdf) for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

### Administrative Information

<b>Investigator In Charge (IIC):</b>	Gunther, Todd		
<b>Additional Participating Persons:</b>	William Gosley; FAA / FSDO; Harrisburg, PA		
<b>Original Publish Date:</b>	May 4, 2023	<b>Investigation Class:</b>	4
<b>Note:</b>	The NTSB did not travel to the scene of this accident.		
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=105600">https://data.nts.gov/Docket?ProjectID=105600</a>		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).