



# Aviation Investigation Final Report

<b>Location:</b>	CRYSTAL, Minnesota	<b>Accident Number:</b>	CHI92FA257
<b>Date &amp; Time:</b>	August 29, 1992, 15:02 Local	<b>Registration:</b>	N6908T
<b>Aircraft:</b>	CESSNA 310D	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Fatal, 2 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

WITNESSES STATED AS THE AIRPLANE BEGAN ITS TAKEOFF ROLL ON RUNWAY 23, THE GUSTY WINDS SHIFTED TO A DIRECT RIGHT CROSSWIND. THEY REPORTED THE AIRPLANE REMAINED ON THE RUNWAY LONGER THAN USUAL, AND THE NOSE 'WOBBLED' BACK AND FORTH AS IT 'SKIPPED FROM MAIN (LANDING GEAR) TO MAIN.' ONE WITNESS STATED 'THE AIRCRAFT WAS PULLED OFF RIGHT AT THE END OF THE RUNWAY AND IMMEDIATELY BANKED TO THE LEFT.' THE AIRCRAFT CONTINUED IN A NOSE HIGH, STEEP ('KNIFE-EDGE') LEFT BANK, THEN DESCENDED INTO TREES AND A RESIDENTIAL COMMUNITY. POST-IMPACT FIRE ENSUED. THE MULTI-ENGINE RATED, PRIVATE PILOT'S LOGBOOK INDICATED 347 HOURS TOTAL FLIGHT TIME, INCLUDING 253 HOURS IN THE ACCIDENT MAKE AND MODEL AIRCRAFT. POST-ACCIDENT INVESTIGATION REVEALED NO EVIDENCE OF PRE-IMPACT MECHANICAL ANOMALY. WITNESSES REPORTED 'SQUIRRELY' WINDS AND 'SQUALL LINE' TYPE THUNDERSTORMS IN THE AREA AT THE TIME OF THE ACCIDENT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO MAINTAIN AIRCRAFT CONTROL DURING TAKEOFF/INITIAL CLIMB IN GUSTY, SHIFTING CROSSWIND CONDITIONS.

## Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) WEATHER CONDITION - UNFAVORABLE WIND
2. (F) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND
3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. OBJECT - TREE(S)
5. OBJECT - RESIDENCE
6. OBJECT - WIRE, TRANSMISSION

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

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Occurrence #4: FIRE/EXPLOSION

Phase of Operation: OTHER

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 30, 1992
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	347 hours (Total, all aircraft), 253 hours (Total, this make and model), 291 hours (Pilot In Command, all aircraft), 20 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N6908T
<b>Model/Series:</b>	310D 310D	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	39208
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	5
<b>Date/Type of Last Inspection:</b>	June 5, 1992 Annual	<b>Certified Max Gross Wt.:</b>	4600 lbs
<b>Time Since Last Inspection:</b>	50 Hrs	<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	49 Hrs	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>		<b>Engine Model/Series:</b>	IO-470D
<b>Registered Owner:</b>	N.A.P.A.	<b>Rated Power:</b>	260 Horsepower
<b>Operator:</b>	BARRON, HAWKES, & ECKMANN	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MIC ,869 ft msl	<b>Distance from Accident Site:</b>	1 Nautical Miles
<b>Observation Time:</b>	15:04 Local	<b>Direction from Accident Site:</b>	10°
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	12 miles
<b>Lowest Ceiling:</b>	Broken / 2700 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	15 knots / 25 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	290°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>	Light - Showers - Rain		
<b>Departure Point:</b>	(MIC )	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	CRESCO , IA (CJJ )	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	15:00 Local	<b>Type of Airspace:</b>	Class E

## Airport Information

<b>Airport:</b>	MINNEAPOLIS-CRYSTAL MIC	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	869 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	23	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	2500 ft / 75 ft	<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	2 Fatal	<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	2 Minor	<b>Aircraft Explosion:</b>	On-ground
<b>Total Injuries:</b>	3 Fatal, 2 Minor	<b>Latitude, Longitude:</b>	45.060298,-93.339088(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Reeves, Jodi
<b>Additional Participating Persons:</b>	WILLIAM BERG; MINNEAPOLIS , MN
<b>Original Publish Date:</b>	June 21, 1993
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=15309">https://data.nts.gov/Docket?ProjectID=15309</a>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).