



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	GENEVA, AL	<b>Accident Number:</b>	ATL93FA058
<b>Date &amp; Time:</b>	02/14/1993, 1043 CST	<b>Registration:</b>	N69402
<b>Aircraft:</b>	CESSNA 402B	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Fatal

**Flight Conducted Under:** Part 91: General Aviation - Other Work Use

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## Analysis

THE AERIAL PHOTO FLIGHT WAS COMMENCING WITH THE PILOT AND OPERATOR ON BOARD. A WITNESS REPORTED THAT THE ENGINES SOUNDED GOOD ON THE GROUND AND DURING THE T/O GROUND ROLL. AT ABOUT 30 TO 40 FEET AGL, HE HEARD 'SURGING' SOUNDS FROM THE AIRPLANE. HE THEN OBSERVED THE AIRCRAFT IN A SHALLOW RIGHT HAND TURN AS IT APPROACHED DEPARTURE END TREES. HE THEN SAW THE AIRCRAFT ROLL OFF TO THE LEFT, INTO THE TREES IN A STEEP, NOSE LOW, LEFT WING LOW ATTITUDE. THE AIRCRAFT CRASHED INTO TREES AND TERRAIN AND WAS DESTROYED BY IMPACT FORCES AND FIRE. INVESTIGATION REVEALED THAT THE AIRCRAFT IMPACTED THE GROUND IN A LEFT WING LOW ATTITUDE. THE MAIN WRECKAGE WAS FOUND INVERTED. AN INSPECTION OF THE ENGINES DID NOT REVEAL EVIDENCE OF A MECHANICAL FAILURE OR MALFUNCTION. EXAM OF BOTH TURBOCHARGERS REVEALED EVIDENCE OF ROTATION AT IMPACT. EXAM OF BOTH PROPELLERS REVEALED EVIDENCE OF BLADE TIP TWISTING TOWARD LOW PITCH AND SOME FORWARD BENDING.

## 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 MINIMUM CONTROLLABLE AIRSPEED DURING THE INITIAL CLIMB, WHICH RESULTED IN A LOSS OF AIRCRAFT CONTROL AND COLLISION WITH TREES AND TERRAIN.

## Findings

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

### Findings

1. (C) AIRSPEED(VMC) - NOT MAINTAINED - PILOT IN COMMAND  
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Occurrence #2: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: DESCENT - UNCONTROLLED

### Findings

2. OBJECT - TREE(S)  
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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Flight Instructor; Commercial	<b>Age:</b>	25, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-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>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	11/02/1992
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2750 hours (Total, all aircraft), 12 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CESSNA	<b>Registration:</b>	N69402
<b>Model/Series:</b>	402B 402B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	402B0535
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	5
<b>Date/Type of Last Inspection:</b>	01/02/2000, Unknown	<b>Certified Max Gross Wt.:</b>	6300 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>		<b>Engine Model/Series:</b>	TSIO-520-E
<b>Registered Owner:</b>	SANDERLIN, D.C.	<b>Rated Power:</b>	300 hp
<b>Operator:</b>	LEWIS, GEOFFREY D.	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DHN, 401 ft msl	Distance from Accident Site:	27 Nautical Miles
Observation Time:	1050 CST	Direction from Accident Site:	55°
Lowest Cloud Condition:	Scattered / 25000 ft agl	Visibility	7 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	13° C / 2° C
Precipitation and Obscuration:			
Departure Point:	(33J)	Type of Flight Plan Filed:	None
Destination:	(33J)	Type of Clearance:	None
Departure Time:	1043 CST	Type of Airspace:	Class G

## Airport Information

Airport:	GENEVA MUNICIPAL (33J)	Runway Surface Type:	Asphalt
Airport Elevation:	101 ft	Runway Surface Condition:	Dry
Runway Used:	29	IFR Approach:	None
Runway Length/Width:	3984 ft / 98 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	2 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	RALPH E HICKS	Report Date:	11/03/1993
Additional Participating Persons:	WILLIAM H ELLIOTT; BIRMINGHAM, AL		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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