



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	CHAMBLEE, GA	<b>Accident Number:</b>	ATL90FA001
<b>Date &amp; Time:</b>	10/01/1989, 1642 EDT	<b>Registration:</b>	N43GT
<b>Aircraft:</b>	BEECH C90	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	2 Fatal

**Flight Conducted Under:** Part 91: General Aviation - Personal

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## Analysis

AFTER TAKING OFF, THE PLT ESTABLISHED RADIO CONTACT WITH DEP CTL & RPRTD A DIRECTIONAL GYRO PROBLEM. SECONDS LATER, HE RPRTD THAT HE WAS LOSING ALL INSTRUMENTS. DEP CTL ATTEMPTED TO PROVIDE NO-GYRO VECTORS. THE PLT WAS INSTRUCTED TO MAKE A FREQ CHANGE. SOON THEREAFTER, RADIO & RADAR CONTACT WERE LOST & THE ACFT CRASHED. BEFORE CRASHING THE ACFT WAS OBSERVED IN A ROLLING ATTITUDE. WRECKAGE WAS FOUND SCATTERED OVER A 600' BY 150' AREA. AN EXAM REVEALED THE RIGHT WING HAD SEPD IN FLT. THERE WAS EVIDENCE THAT THE RIGHT WING HAD FAILED IN AN UPWARD (POSITIVE) DRCTN. THE PLT'S ATTITUDE GYRO WAS DAMAGED DURING IMPACT, BUT NO ROTATIONAL DAMAGE WAS NOTED. THE PLT'S ATTITUDE INDCR & COPLT'S TURN INDCR WERE AIR DRIVEN, THE PLT'S TURN INDCR WAS DC POWERED & THE COPLT'S ATTITUDE INDCR WAS AC POWERED. THE MAINTENANCE LOG DID NOT HAVE A CURRENT STATIC/ALTIMETER & TRANSPONDER CHECK.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: MALFUNCTION OF ONE OR MORE FLIGHT INSTRUMENTS FOR AN UNDETERMINED REASON, FAILUE OF THE PILOT TO MAINTAIN CONTROL OF THE AIRCRAFT WITH PARTIAL PANEL INSTRUMENTS AFTER BECOMING SPATIALLY DISORIENTED, AND HIS EXCEEDING THE DESIGN STRESS LIMITS OF THE AIRCRAFT. THE WEATHER (LOW CEILING) AND MALFUNCTIONING DIRECTIONAL GYRO WERE RELATED FACTORS.

## Findings

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Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: CLIMB

### Findings

1. (C) FLIGHT/NAV INSTRUMENTS - UNDETERMINED
2. MAINTENANCE,INSPECTION - NOT PERFORMED
3. (F) FLIGHT/NAV INSTRUMENTS,DIRECTIONAL GYRO - INOPERATIVE

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Occurrence #2: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: MANEUVERING

### Findings

4. (F) WEATHER CONDITION - LOW CEILING
5. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
6. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND

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Occurrence #3: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION  
Phase of Operation: MANEUVERING

### Findings

7. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
8. WING - OVERLOAD
9. WING - SEPARATION

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Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport	<b>Age:</b>	48, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Unknown
<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>		<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	06/02/1989
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2000 hours (Total, all aircraft), 400 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BEECH	<b>Registration:</b>	N43GT
<b>Model/Series:</b>	C90 C90	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	LJ-652
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	8
<b>Date/Type of Last Inspection:</b>	04/03/1989, 100 Hour	<b>Certified Max Gross Wt.:</b>	9650 lbs
<b>Time Since Last Inspection:</b>	136 Hours	<b>Engines:</b>	2 Turbo Prop
<b>Airframe Total Time:</b>	4272 Hours	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	PT6A-20
<b>Registered Owner:</b>		<b>Rated Power:</b>	579 hp
<b>Operator:</b>	ROY BEATTY	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PDK, 1002 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1455 EDT	Direction from Accident Site:	90°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	2 Miles
Lowest Ceiling:	Broken / 700 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:	CHAMBLEE, GA (PDK)	Type of Flight Plan Filed:	IFR
Destination:	ORLANDO, FL (ORL)	Type of Clearance:	IFR
Departure Time:	1638 EDT	Type of Airspace:	

## Airport Information

Airport:	DEKALB PEACHTREE (PDK)	Runway Surface Type:	
Airport Elevation:	1002 ft	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	PHILLIP POWELL	Report Date:	06/30/1992
Additional Participating Persons:			
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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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](#).