



National Transportation Safety Board Aviation Accident Final Report

Location:	BRISTOL, IN	Accident Number:	CHI89FA101
Date & Time:	05/31/1989, 1606 EST	Registration:	N9114B
Aircraft:	PIPER PA-46-310P	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

AFTER BEING CLEARED TO DESCEND TO TWELVE THOUSAND FEET AND TO DEVIATE AROUND A 'BIG CELL', THE AIRCRAFT ENTERED AN AREA OF LEVEL TWO AND THREE THUNDERSTORMS. SUBSEQUENTLY, AN IN-FLIGHT BREAKUP OCCURRED AND WRECKAGE WAS SCATTERED OVER A FOUR MILE AREA. DURING THE BREAKUP, THE RIGHT WING AND EMPENNAGE SEPARATED FROM THE AIRCRAFT. THE LEFT WING AND SPAR ALSO FAILED AT THE SAME LOCATION AS THE RIGHT WING, BUT THE LEFT WING REMAINED WITH THE FUSELAGE. NO PRE-ACCIDENT FAILURE, MALFUNCTION OR METAL FATIGUE OF THE AIRCRAFT WAS FOUND DRG THE INVESTIGATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: CONTINUED FLIGHT BY THE PILOT INTO KNOWN ADVERSE WEATHER AND HIS EXCEEDING THE DESIGN STRESS LIMITS OF THE AIRCRAFT, WHICH RESULTED IN FAILURE OF THE WING SPARS AND SEPARATION OF THE RIGHT WING AND EMPENNAGE (STABILIZERS). CONTRIBUTING FACTORS WERE: CONTINUED FLIGHT BY THE PILOT ABOVE THE MANEUVERING SPEED (VA), HIS LACK OF FAMILIARITY WITH THE MAKE AND MODEL OF AIRCRAFT, AND THUNDERSTORMS.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER

Phase of Operation: DESCENT

Findings

1. (F) WEATHER CONDITION - THUNDERSTORM
 2. (C) FLIGHT INTO KNOWN ADVERSE WEATHER - CONTINUED - PILOT IN COMMAND
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Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: DESCENT

Findings

3. (F) AIRSPEED(VA) - ABOVE - PILOT IN COMMAND
 4. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
 5. (F) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
 6. WING,SPAR - OVERLOAD
 7. WING - SEPARATION
 8. STABILIZER - OVERLOAD
 9. STABILIZER - SEPARATION
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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Private	Age:	54, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	07/23/1987
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	1619 hours (Total, all aircraft), 17 hours (Total, this make and model), 1482 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N9114B
Model/Series:	PA-46-310P PA-46-310P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	46-08046
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	08/29/1988, Annual	Certified Max Gross Wt.:	4100 lbs
Time Since Last Inspection:	79 Hours	Engines:	1 Reciprocating
Airframe Total Time:	705 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520-BE
Registered Owner:	STOUT LEASING, INC.	Rated Power:	310 hp
Operator:	STOUT LEASING, INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	Condition of Light:	Day
Observation Facility, Elevation:	SBN, 790 ft msl	Distance from Accident Site:	23 Nautical Miles
Observation Time:	1600 EST	Direction from Accident Site:	270°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Broken / 2500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	28° C / 23° C
Precipitation and Obscuration:			
Departure Point:	TULLAHOMA, TN (THA)	Type of Flight Plan Filed:	IFR
Destination:	KALAMAZOO, MI (AZO)	Type of Clearance:	IFR
Departure Time:	0000	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	STEPHEN A WILSON	Report Date:	06/18/1990
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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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](#).