



National Transportation Safety Board Aviation Accident Data Summary

Location:	BAY MINETTE, AL	Accident Number:	ATL94FA056
Date & Time:	03/01/1994, 1115 CST	Registration:	N55MM
Aircraft:	CESSNA P210R	Injuries:	4 Fatal
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

THE PILOT RECEIVED A FULL WEATHER BRIEFING BEFORE THE IFR FLIGHT. CONVECTIVE THUNDERSTORM ACTIVITY WAS FORECAST FOR THE ROUTE OF FLIGHT, THERE WERE NUMEROUS THUNDERSTORMS IN THE AREA AT THE TIME OF DEPARTURE, AND A TORNADO WATCH WAS IN EFFECT AT THE TIME OF THE ACCIDENT. AFTER LEVELING AT FL210, HE REPORTED THAT CONDITIONS WERE 'GETTING ROUGH.' SHORTLY THEREAFTER, HE REPORTED PROBLEMS WITH THE AIRCRAFT GYRO SYSTEM, THEN SAID ALL GYRO'S WERE 'OUT.' HE ELECTED TO DESCEND IN AN ATTEMPT TO LOCATE VFR WEATHER. AS THE AIRCRAFT DESCENDED, RADIO & RADAR CONTACT WERE LOST. WRECKAGE WAS FOUND DISTRIBUTED OVER AN AREA ABOUT 4-1/2 MILES IN LENGTH. AN EXAM OF THE WRECKAGE REVEALED EVIDENCE THAT THE WINGS HAD FAILED IN AN UPWARD DIRECTION. DURING AN EXAM OF THE VACUUM POWERED ATTITUDE GYRO, NO ROTATIONAL SCRATCHING WAS FOUND ON THE GYRO OR IN THE GYRO HOUSING. AN EXAM OF THE LEFT VACUUM PUMP REVEALED THAT THE PLASTIC DRIVE COUPLING HAD SIGNS OF HEAT STRESS & MELTING, THAT THE INTERNAL VEINS WERE BROKEN & CRACKED & THAT THERE WAS A DEPOSIT OF CARBON MATERIAL INSIDE THE HOUSING. THE RIGHT VACUUM PUMP HAD EVIDENCE OF ROTATIONAL SCRATCHING. THE GYROS SHOULD HAVE OPERATED WITH 1 VACUUM PUMP IN OPERATION.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO MAINTAIN CONTROL OF THE AIRCRAFT DUE TO SPATIAL DISORIENTATION, AND EXCEEDING THE DESIGN STRESS LIMITS OF THE AIRCRAFT. FACTORS RELATED TO THE ACCIDENT WERE: THE PILOT'S FLIGHT INTO KNOWN ADVERSE WEATHER CONDITIONS, OVERCONFIDENCE IN HIMSELF AND THE AIRPLANE, FAILURE OF THE LEFT VACUUM PUMP, PARTIAL LOSS OF THE VACUUM SYSTEM, AND AN INOPERATIVE ATTITUDE INDICATOR.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE - NORMAL

Findings

1. (F) WEATHER CONDITION - LOW CEILING
2. (F) WEATHER CONDITION - THUNDERSTORM
3. (F) WEATHER CONDITION - TURBULENCE(THUNDERSTORMS)
4. (F) FLIGHT INTO KNOWN ADVERSE WEATHER - INTENTIONAL - PILOT IN COMMAND

- 5. (F) OVERCONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
- 6. (F) OVERCONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND

Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE - NORMAL

Findings

- 7. (F) ENGINE ACCESSORIES,VACUUM PUMP - FAILURE
- 8. (F) VACUUM SYSTEM - FAILURE,PARTIAL
- 9. (F) FLIGHT/NAV INSTRUMENTS,ATTITUDE INDICATOR - INOPERATIVE

Occurrence #3: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: CRUISE

Findings

- 10. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
- 11. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND

Occurrence #4: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: DESCENT - UNCONTROLLED

Findings

- 12. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
- 13. WING - OVERLOAD
- 14. WING - SEPARATION

Occurrence #5: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Pilot Information

Certificate:	Private	Age:	57
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Single-engine; None
Flight Time:	2080 hours (Total, all aircraft), 157 hours (Total, this make and model), 25 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N55MM
Model/Series:	P210R P210R	Engines:	1 Reciprocating
Operator:	WEISER, JOEL J.	Engine Manufacturer:	CONTINENTAL
Operating Certificate(s) Held:	None	Engine Model/Series:	TSIO-520-CE1F
Flight Conducted Under:	Part 91: General Aviation - Business		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MOB, 218 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Broken / 800 ft agl	Wind Speed/Gusts, Direction:	9 knots / , 210°
Temperature:	19° C	Visibility	1 Miles
Precipitation and Obscuration:			
Departure Point:	NEW ORLEANS, LA (NEW)	Destination:	SARASOTA, FL (61X)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	3 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Latitude, Longitude:

Administrative Information

Investigator In Charge (IIC):	ROFF H SASSER,	Adopted Date:	04/07/1995
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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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