



National Transportation Safety Board Aviation Accident Final Report

Location:	GASTON, SC	Accident Number:	ATL89FA165
Date & Time:	06/20/1989, 1642 EDT	Registration:	N78TW
Aircraft:	BEECH B-60	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

AFTER OBTAINING A WEATHER BRIEFING IN WHICH HE WAS INFORMED OF THUNDERSTORMS AND CURRENT SIGMETS FOR HIS INTENDED ROUTE OF FLIGHT, THE PILOT ELECTED TO DEPART HIS HOME AIRPORT ON A PERSONAL FLIGHT. AT THE TIME OF DEPARTURE, WITNESSES INDICATED THE PRESENCE OF THUNDERSTORMS ADJACENT TO THE AIRPORT. AFTER TRYING TO OBTAIN HIS IFR CLEARANCE FROM CHARLOTTE, THE PILOT WAS ISSUED HIS IFR CLEARANCE WHEN APPROACHING COLUMBIA, SC. THE PILOT HAD DEVIATED AROUND AT LEAST ONE THUNDERSTORM WHILE APPROACHING COLUMBIA. THE PILOT HAD BEEN CLEARED TO CLIMB TO HIS REQUESTED ALTITUDE OF 17,000 FEET AND HAD REACHED 16,400 WHEN THE RADAR RETURN WAS OBSERVED TO INDICATE A DESCENT AND THEN WAS LOST. WITNESSES ON THE GROUND REPORTED SEEING THE AIRPLANE EXIT THE CLOUDS IN FLAMES. THE EVIDENCE INDICATED THAT THE HORIZONTAL TAIL HAD SEPARATED FOLLOWED BY THE WINGS AND OTHER COMPONENTS OF THE AIRPLANE. NO EVIDENCE OF SEPARATION DUE TO STRUCTURAL WEAKENING FROM HEATING WAS FOUND.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT EXERCISED QUESTIONABLE JUDGEMENT IN INITIATING A FLIGHT INTO AN AREA OF KNOWN THUNDERSTORMS. FURTHER, EITHER DELIBERATELY OR INADVERTANTLY ENTERED A THUNDERSTORM AND OVERSTRESSED THE AIRFRAME STRUCTURE RESULTING IN AN INFLIGHT SEPARATION OF THE AERODYNAMIC SURFACES.

Findings

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

Findings

1. WEATHER CONDITION - THUNDERSTORM, LEVEL III
2. WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND
3. (C) FLIGHT INTO KNOWN ADVERSE WEATHER - ATTEMPTED - PILOT IN COMMAND
4. (C) IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND
5. OVERCONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
6. IN FLIGHT WEATHER AVOIDANCE ASSISTANCE - NOT USED - PILOT IN COMMAND
7. OVERCONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND

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

Findings

8. REMEDIAL ACTION - NOT PERFORMED - PILOT IN COMMAND
9. AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #3: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: DESCENT - UNCONTROLLED

Findings

10. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

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

Factual Information

Pilot Information

Certificate:	Private	Age:	49, Male
Airplane Rating(s):	Multi-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	01/10/1989
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1290 hours (Total, all aircraft), 26 hours (Total, this make and model), 1010 hours (Pilot In Command, all aircraft), 17 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	Registration:	N78TW
Model/Series:	B-60 B-60	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	P-445
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	01/13/1989, Annual	Certified Max Gross Wt.:	6725 lbs
Time Since Last Inspection:	21 Hours	Engines:	2 Reciprocating
Airframe Total Time:	1669 Hours	Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	TIO-5410E1C4
Registered Owner:	MAURICE J WALSH, III	Rated Power:	380 hp
Operator:	MAURICE J. WALSH, III	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	CAE, 236 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	1650 EDT	Direction from Accident Site:	325°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 4000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24° C / 21° C
Precipitation and Obscuration:			
Departure Point:	GASTONIA, NC (0A6)	Type of Flight Plan Filed:	IFR
Destination:	FORT PIERCE, FL (FPR)	Type of Clearance:	IFR
Departure Time:	1600 EDT	Type of Airspace:	Class E

Airport Information

Airport:	COLUMBIA METRO (CAE)	Runway Surface Type:	
Airport Elevation:		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:	3 Fatal	Aircraft Fire:	In-Flight and On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	WALTER G STINER	Report Date:	07/11/1990
Additional Participating Persons:	JAMES MALEK; COLUMBIA, SC JAMES STABLEY; WILLIAMSPORT, PA G D STAAB; WICHITA, KS		
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 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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