



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	MT. PLEASANT, TN	<b>Accident Number:</b>	ATL89FA142
<b>Date &amp; Time:</b>	05/06/1989, 0200 CDT	<b>Registration:</b>	N95PB
<b>Aircraft:</b>	EMBRAER EMB-110-P1	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal, 1 Serious
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Instructional		

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## Analysis

AFTER CONDUCTING GROUND TRAINING ALL DAY, THE INSTRUCTOR/DIRECTOR OF OPERATIONS AND HIS TRAINEE FLEW AN EMB-110-P1 TO MEMPHIS TO EXCHANGE AIRPLANES. GROUND FOG HAD STARTED TO FORM PRIOR TO DEPARTURE. AFTER EXCHANGING AIRPLANES, THEY MADE THE RETURN FLIGHT TO COLUMBIA. THEY OBTAINED RADAR VECTORS TO THE FINAL APPROACH COURSE FOR THE SDF AT COLUMBIA. THE THICK FOG RESULTED IN A MISSED APPROACH. DURING THE MISSED APPROACH, THE RUNWAY WAS VISIBLE FROM ABOVE AND THE CREW INDICATED THAT THEY WOULD TRY FOR A VFR APPROACH AND LANDING. THE AIRPLANE COLLIDED WITH TREES 2350 FEET FROM THE RUNWAY IN A WINGS LEVEL ATTITUDE. THE TOPS OF THE TREES WERE BROKEN 41 FEET ABOVE THE RUNWAY THRESHOLD ALTITUDE. THE TRAINEE HAD BEEN WITHOUT REST FOR AT LEAST 30 HOURS PRIOR TO THE ACCIDENT.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: PILOT ATTEMPTED TO MAKE A VFR LANDING IN INSTRUMENT CONDITIONS THAT WERE BELOW MINIMUMS FOR THE PUBLISHED INSTRUMENT APPROACH AND COLLIDED WITH TREES AND THE GROUND AFTER ALLOWING THE AIRPLANE TO DESCEND BELOW THE PROPER ALTITUDE.

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

### Findings

1. OBJECT - TREE(S)
2. (C) FATIGUE - DUAL STUDENT
3. WEATHER CONDITION - FOG
4. (C) WEATHER EVALUATION - MISJUDGED
5. LIGHT CONDITION - DARK NIGHT
6. (C) ALTITUDE - INADEQUATE - DUAL STUDENT
7. (C) REMEDIAL ACTION - DELAYED - PILOT IN COMMAND(CFI)
8. (C) IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND(CFI)

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	43, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	03/20/1989
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	11020 hours (Total, all aircraft), 250 hours (Total, this make and model), 143 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	EMBRAER	<b>Registration:</b>	N95PB
<b>Model/Series:</b>	EMB-110-P1 EMB-110-P1	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	110330
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	05/03/1989, AAIP	<b>Certified Max Gross Wt.:</b>	12500 lbs
<b>Time Since Last Inspection:</b>	44 Hours	<b>Engines:</b>	2 Turbo Prop
<b>Airframe Total Time:</b>	11387 Hours	<b>Engine Manufacturer:</b>	P&W
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	PT6A-34
<b>Registered Owner:</b>	FLIGHT LINE, INC	<b>Rated Power:</b>	783 hp
<b>Operator:</b>	FLIGHT LINE, INC.	<b>Operating Certificate(s) Held:</b>	On-demand Air Taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	FLIA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	BNA, 762 ft msl	Distance from Accident Site:	41 Nautical Miles
Observation Time:	0151 CDT	Direction from Accident Site:	45°
Lowest Cloud Condition:	Scattered / 9000 ft agl	Visibility	1 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	10° C / 10° C
Precipitation and Obscuration:			
Departure Point:	MEMPHIS, TN (MEM)	Type of Flight Plan Filed:	IFR
Destination:	(MRC)	Type of Clearance:	IFR
Departure Time:	0105 CDT	Type of Airspace:	Class G

## Airport Information

Airport:	MAURY COUNTY (MRC)	Runway Surface Type:	Asphalt
Airport Elevation:	676 ft	Runway Surface Condition:	
Runway Used:	23	IFR Approach:	Contact; SDF
Runway Length/Width:	5003 ft / 75 ft	VFR Approach/Landing:	None

## Wreckage and Impact Information

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

## Administrative Information

Investigator In Charge (IIC):	WALTER G STINER	Report Date:	07/11/1990
Additional Participating Persons:	ROBERT DAVIDSON; NASHVILLE, TN MANUEL S MONTEIRO; FT. LAUDERDALE, FL		
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:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.ntsb.gov/pubdms/">http://dms.ntsb.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](#).