



National Transportation Safety Board Aviation Accident Final Report

Location:	MT. PLEASANT, TN	Accident Number:	ATL89FA142
Date & Time:	05/06/1989, 0200 CDT	Registration:	N95PB
Aircraft:	EMBRAER EMB-110-P1	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal, 1 Serious

Flight Conducted Under: Part 91: General Aviation - Instructional

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

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

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	43, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last Medical Exam:	03/20/1989
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	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

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

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	BNA, 762 ft msl	Observation Time:	0151 CDT
Distance from Accident Site:	41 Nautical Miles	Direction from Accident Site:	45°
Lowest Cloud Condition:	Scattered / 9000 ft agl	Temperature/Dew Point:	10°C / 10°C
Lowest Ceiling:	None / 0 ft agl	Visibility	1 Miles
Wind Speed/Gusts, Direction:	4 knots, 200°	Visibility (RVR):	0 ft
Altimeter Setting:	29 inches Hg	Visibility (RVV):	0 Miles
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	Adopted 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 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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