



National Transportation Safety Board Aviation Accident Final Report

Location:	LAWTON, OK	Accident Number:	DCA88MA059
Date & Time:	05/24/1988, 1454 EST	Registration:	N65DA
Aircraft:	EMBRAER EMB-110P	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Serious, 6 Minor
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Scheduled		

Analysis

THE NUMBER 1 (LEFT) ENGINE FAILED DURING THE TAKEOFF FROM RUNWAY 35. IT WAS REPORTED THAT THE AIRCRAFT YAWED SHARPLY LEFT AND CLIMBED TO BETWEEN 50 AND 100 FEET AGL BEFORE IT BEGAN LOSING ALT. THE AIRCRAFT STRUCK THE GROUND AND CONTINUED TO MOVE FORWARD ON THE GROUND SEVERAL HUNDRED FEET UNTIL IT STRUCK THE AIRPORT PERIMETER FENCE. THE AIRCRAFT CAME TO REST 1,600 FEET WEST OF THE RUNWAY, ON A HEADING OF 290 DEGREES. A POST-CRASH FIRE DESTROYED THE CARGO AREA OF THE AIRCRAFT. EXAMINATION OF THE NO. 1 ENGINE REVEALED A COMPRESSOR TURBINE BLADE AIRFOIL SEPARATION. DISASSEMBLY OF THE PROPELLER ON THE NO. 1 ENGINE INDICATED THAT THE PROPELLER HAD AUTOFEATHERED NORMALLY AFTER THE ENGINE FAILED. THE CAPTAIN REPORTEDLY MADE THE TAKEOFF.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
NONE SUBMITTED

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. 1 ENGINE
2. (F) COMPRESSOR ASSEMBLY, BLADE - PREVIOUS DAMAGE
3. (F) COMPRESSOR ASSEMBLY, BLADE - OVERTEMPERATURE
4. (F) COMPRESSOR ASSEMBLY, BLADE - SEPARATION
5. PROPELLER FEATHERING - PERFORMED

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

6. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
7. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
8. OBJECT - FENCE

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	31, 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:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last Medical Exam:	05/20/1988
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	2333 hours (Total, all aircraft), 483 hours (Total, this make and model), 1883 hours (Pilot In Command, all aircraft), 294 hours (Last 90 days, all aircraft), 85 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	EMBRAER	Registration:	N65DA
Model/Series:	EMB-110P EMB-110P	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	110389
Landing Gear Type:	Retractable - Tricycle	Seats:	17
Date/Type of Last Inspection:	05/11/1988, Continuous Airworthiness	Certified Max Gross Wt.:	13007 lbs
Time Since Last Inspection:	84 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	13005 Hours	Engine Manufacturer:	P&W
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	PT6A-34
Registered Owner:	ATLANTIC SOUTHEAST AIRLINES	Rated Power:	750 hp
Operator:	ATLANTIC SOUTHEAST AIRLINES	Air Carrier Operating Certificate:	Commuter Air Carrier (135)
Operator Does Business As:	ASA	Operator Designator Code:	ASOA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	LAW, 1110 ft msl	Observation Time:	1447 CDT
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 3500 ft agl	Temperature/Dew Point:	26° C
Lowest Ceiling:	None / 0 ft agl	Visibility	15 Miles
Wind Speed/Gusts, Direction:	10 knots/ 18 knots, 20°	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	FORT WORTH, TX (DFW)	Type of Clearance:	IFR
Departure Time:	0000	Type of Airspace:	

Airport Information

Airport:	LAWTON MUNIC (LAW)	Runway Surface Type:	Concrete
Airport Elevation:	1110 ft	Runway Surface Condition:	Dry
Runway Used:	35	IFR Approach:	None
Runway Length/Width:	8600 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious, 1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Serious, 5 Minor	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious, 6 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	BARRY STRAUCH	Adopted Date:	12/29/1989
Additional Participating Persons:	MANUAL 2 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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