



Aviation Investigation Final Report

Location:	BOSTON, Massachusetts	Incident Number:	NYC911A137
Date & Time:	June 6, 1991, 16:39 Local	Registration:	N750UA
Aircraft:	Boeing 727-214	Aircraft Damage:	Minor
Defining Event:		Injuries:	156 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

JUST AFTER TAKEOFF, THE PILOT SAID, 'A LOUD NOISE WAS HEARD ACCOMPANIED BY HIGH EGT ON THE NUMBER 2 ENGINE.' THE CREW SHUT DOWN THE ENGINE AND LANDED WITHOUT INCIDENT. AN EXAMINATION OF THE ENGINE REVEALED AN UNCONTAINED ENGINE FAILURE. DAMAGE TO THE AIRPLANE WAS MINOR. A THIRD STAGE TURBINE BLADE FAILED DUE TO HIGH CYCLE FATIGUE ON THE LEADING EDGE OF THE BLADE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: THE FAILURE OF THE THIRD STAGE TURBINE BLADE ON THE NUMBER TWO ENGINE, DUE TO HIGH CYCLE FATIGUE.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) 1 ENGINE - FAILURE, TOTAL
2. (C) TURBINE ASSEMBLY, TURBINE BLADE - FATIGUE

Factual Information

Pilot Information

Certificate:	Airline transport; Commercial; Private	Age:	50, Male
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	March 11, 1991
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	12500 hours (Total, all aircraft), 5500 hours (Total, this make and model), 8000 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 65 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Boeing	Registration:	N750UA
Model/Series:	727-214 727-214	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	709108
Landing Gear Type:	Retractable - Tricycle	Seats:	159
Date/Type of Last Inspection:	January 2, 2000 Unknown	Certified Max Gross Wt.:	175000 lbs
Time Since Last Inspection:		Engines:	3 Turbo fan
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	JT8D-15A
Registered Owner:	USAIR	Rated Power:	15100 Lbs thrust
Operator:	USAIR	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	USAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	CHARLOTTE , NC (CLT)	Type of Clearance:	IFR
Departure Time:	16:39 Local	Type of Airspace:	

Airport Information

Airport:	LOGAN INTERNATIONAL BOS	Runway Surface Type:	
Airport Elevation:	10 ft msl	Runway Surface Condition:	
Runway Used:	9	IFR Approach:	
Runway Length/Width:	9000 ft / 150 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	7 None	Aircraft Damage:	Minor
Passenger Injuries:	149 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	156 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Leonard, Charles
Additional Participating Persons:	ARNIE SILVERSTONE; BEDFORD , MA
Original Publish Date:	May 3, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=36815

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).