



Aviation Investigation Final Report

Location:	MADISON, Florida	Incident Number:	MIA90IA047
Date & Time:	January 4, 1990, 09:10 Local	Registration:	N2280
Aircraft:	BOEING 727-251	Aircraft Damage:	Minor
Defining Event:		Injuries:	145 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

THE CREW OF THE AIRLINE FLIGHT HEARD A BANG AND NOTED THE LOSS OF NO 3 ENGINE POWER, IN CRUISE FLIGHT AT FL350, DECLARED AN EMERGENCY, DIVERTED AND LANDED. AFTER LANDING THE NO 3 ENGINE WAS FOUND TO BE MISSING FROM THE AIRPLANE. THE ENGINE WAS FOUND. EXAMINED AND EXHIBITED SOFT BODY FOD DAMAGE TO THE COMPRESSOR BLADES. THE FORWARD LAVATORY EXTERNAL SEAL WAS MISSING THE SAFETY BUTTON AND THE INTERNAL SEAL WAS IMPROPERLY INSTALLED ALLOWING FOR LEAKAGE WHEN THE AIRPLANE WAS PRESSURIZED. THE FUSELAGE EXTERNAL SKIN AFT OF THE FORWARD LAVATORY SERVICE PANEL WAS STAINED WITH BLUE FLUID.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: THE FAILURE OF COMPANY SERVICE PERSONNEL TO PROPERLY SERVICE THE AIRPLANE FORWARD LAVATORY.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE - NORMAL

Findings

1. FLUID,LAVATORY - LEAK
2. (C) MAINTENANCE,SERVICE OF AIRCRAFT/EQUIPMENT - IMPROPER - COMPANY MAINTENANCE PERSONNEL

Occurrence #2: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: CRUISE - NORMAL

Findings

3. COMPRESSOR ASSEMBLY, BLADE - FOREIGN OBJECT DAMAGE

Factual Information

Pilot Information

Certificate:	Airline transport	Age:	Male
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Left
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--no waivers/lim.	Last FAA Medical Exam:	November 7, 1989
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	12000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BOEING	Registration:	N2280
Model/Series:	727-251 727-251	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	21159
Landing Gear Type:	Retractable - Tricycle	Seats:	145
Date/Type of Last Inspection:	December 16, 1989 Continuous airworthiness	Certified Max Gross Wt.:	196000 lbs
Time Since Last Inspection:	166 Hrs	Engines:	3 Turbo jet
Airframe Total Time:	34169 Hrs	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	JT-8-D-15
Registered Owner:	INVESTORS HOLDING CORP.	Rated Power:	6000 Lbs thrust
Operator:	NORTHWEST AIRLINES	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	NWAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	TPA ,14 ft msl	Distance from Accident Site:	105 Nautical Miles
Observation Time:	08:55 Local	Direction from Accident Site:	190°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	22°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MIAMI , FL (MIA)	Type of Flight Plan Filed:	IFR
Destination:	MINNEAPOLIS , MS (MSP)	Type of Clearance:	IFR
Departure Time:	08:15 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	6 None	Aircraft Damage:	Minor
Passenger Injuries:	139 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	145 None	Latitude, Longitude:	30.460279,-83.40969(est)

Administrative Information

Investigator In Charge (IIC): Alston, Andrew

Additional Participating Persons: ; SEATTLE , WA
; ORLANDO , FL
; EAST HARTFORD , CT

Original Publish Date: December 30, 1992

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=32577>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).