



Aviation Investigation Final Report

Location:	NORFOLK, Virginia	Incident Number:	BF087IA008
Date & Time:	November 16, 1986, 11:03 Local	Registration:	N64323
Aircraft:	BOEING 727-231	Aircraft Damage:	Minor
Defining Event:		Injuries:	1 Minor, 23 None
Flight Conducted Under:	Part 121: Air carrier - Scheduled		

Analysis

DURING THE LANDING ROLL THE R MAIN GEAR COLLAPSED. A FLIGHT ATTENDANT RECEIVED MINOR INJURIES DURING EVACUATION OF THE ACFT. EXAMINATION OF THE ACFT DISCLOSED THAT THE SHOCK STRUT CYLINDER FRACTURED CIRCUMFERENTIALLY; ABOUT 10 INCHES BELOW THE TOP OF THE CYLINDER. METALLURGICAL EXAMINATION OF THE FRACTURE SURFACE REVEALED EVIDENCE OF PRE-EXISTING FATIGUE CRACKING.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be:

Findings

Occurrence #1: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings

1. (C) LANDING GEAR, EMERGENCY EXTENSION ASSEMBLY - FAILURE, TOTAL
2. (C) LANDING GEAR, MAIN GEAR SHOCK ABSORBING STRUT - FATIGUE
3. (C) LANDING GEAR, MAIN GEAR SHOCK ABSORBING STRUT - STRESS CORROSION

Factual Information

Pilot Information

Certificate:	Airline transport; Commercial	Age:	48, Male
Airplane Rating(s):	Single-engine land; 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:	Unknown Unknown	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	BOEING	Registration:	N64323
Model/Series:	727-231 727-231	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	20098
Landing Gear Type:	Retractable - Tricycle	Seats:	195
Date/Type of Last Inspection:	AAIP	Certified Max Gross Wt.:	170600 lbs
Time Since Last Inspection:		Engines:	3 Turbo fan
Airframe Total Time:		Engine Manufacturer:	P&W
ELT:		Engine Model/Series:	JT8
Registered Owner:	AVIATION SALES COMPANY INC.	Rated Power:	15500 Lbs thrust
Operator:	TRANS WORLD AIRLINES	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	TWAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	ORF ,27 ft msl	Distance from Accident Site:	
Observation Time:	11:07 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	7 miles
Lowest Ceiling:	Unknown / 3500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	10°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	WASHINGTON , DC (DCA)	Type of Flight Plan Filed:	IFR
Destination:	NORFOLK , VA (ORF)	Type of Clearance:	IFR
Departure Time:	00:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	NORFOLK ORF	Runway Surface Type:	
Airport Elevation:	27 ft msl	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	None
Runway Length/Width:	9000 ft / 150 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Minor, 23 None	Aircraft Damage:	Minor
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 23 None	Latitude, Longitude:	36.860515,-76.200462(est)

Administrative Information

Investigator In Charge (IIC):	Jones, Dennis
Additional Participating Persons:	JAMES SIEGMAN; WASHINGTON , DC
Original Publish Date:	
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=11295

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](#).