



National Transportation Safety Board Aviation Accident Data Summary

Location:	BALTIMORE, MD	Accident Number:	BFO90FA017
Date & Time:	01/02/1990, 0007 EST	Registration:	N109AA
Aircraft:	DOUGLAS DC-10	Injuries:	3 Serious, 7 Minor, 247 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

SMOKE ENTERED THE FLIGHT DECK AND CABIN DURING CRUISE FLIGHT AND THE FLIGHT DIVERTED TO AND LANDED AT BWI. AFTER THE FLIGHT CAME TO A STOP ON THE RUNWAY, THE CAPTAIN ORDERED THE EMERGENCY EVACUATION OF THE AIRCRAFT. ALL THE EMERGENCY EXITS WERE USED, EXCEPT THE OVERWING EXITS. WHEN THE OVERWING EXITS WERE DEPLOYED, THEY BLEW OVER THE REAR INSTEAD OF OVER THE FRONT OF THE WING AND WERE DEEMED UNUSABLE. EXAMINATION OF THE AIRCRAFT REVEALED THE NO. 1 AIR CONDITIONING MODULE OVERHEATED AND OIL RESIDUE ON IT WAS THE SMOKE SOURCE.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INJURIES ASSOCIATED WITH THE EVACUATION OF THE AIRCRAFT.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: CRUISE - NORMAL

Findings

1. (C) AIR COND/HEATING/PRESSURIZATION - OVERTEMPERATURE
2. (F) AIR COND/HEATING/PRESSURIZATION - SMOKE

Occurrence #2: HAZARDOUS MATERIALS LEAK/SPILL

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: MISCELLANEOUS/OTHER

Phase of Operation: STANDING - ENGINE(S) NOT OPERATING

Findings

3. EVACUATION - INTENTIONAL

Pilot Information

Certificate:	Airline Transport	Age:	47
Airplane Rating(s):	Multi-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	
Flight Time:	1506 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	DOUGLAS	Registration:	N109AA
Model/Series:	DC-10 DC-10	Engines:	3 Turbo Fan
Operator:	AMERICAN AIRLINES	Engine Manufacturer:	GE
Operating Certificate(s) Held:	Flag carrier (121)	Engine Model/Series:	CF6-6
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	BWI, 146 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	12 knots / , 280°
Temperature:	1°C	Visibility	20 Miles
Precipitation and Obscuration:			
Departure Point:	DALLAS, TX (DFW)	Destination:	NEW YORK, NY (LGA)

Airport Information

Airport:	BALTIMORE-WASHINGTON (BWI)	Runway Surface Type:	Asphalt
Runway Used:	28	Runway Surface Condition:	Dry
Runway Length/Width:	9452 ft / 200 ft		

Wreckage and Impact Information

Crew Injuries:	10 None	Aircraft Damage:	None
Passenger Injuries:	3 Serious, 7 Minor, 237 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): DENNIS L JONES

Adopted Date: 12/08/1992

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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