



National Transportation Safety Board

Aviation Incident Data Summary

Location:	HOUSTON, TX	Incident Number:	FTW881A037
Date & Time:	12/03/1987, 1234 CST	Registration:	N571PE
Aircraft:	BOEING 727-243	Injuries:	87 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

DURING THE APPROACH TO LANDING THE NUMBER SIX LEADING EDGE SLAT ASSEMBLY FAILED. THE INBOARD SECTION OF THE SLAT HUNG DOWN AND BENT AFT. THE PILOT LANDED THE ACFT WITHOUT FURTHER INCIDENT. METALLURGICAL ANALYSIS OF COMPONENTS REVEALED THAT A SLAT TRACK ROLLER BEARING CONTAINED EVIDENCE OF CORROSION AND SPALLING. ADDITIONALLY, THE SLAT TRACK BEARING BOLT THAT HAD BEEN INSTALLED THROUGH THE ABOVE MENTIONED BEARING HAD HEAVY CIRCUMFERENTIAL GOUGES CONTAINED IN THE SURFACE OF A CROSS-DRILLED HOLE AT THE AREAS OF FATIGUE INITIATION. THERE WAS ALSO EVIDENCE OF TEARING, TYPICAL OF DAMAGE PRODUCED DURING DRILLING WITH A DULL DRILL BIT. THE AIRPLANE HAD COMPLETED A MAJOR STRUCTURAL MAINTENANCE CHECK 48 FLIGHT HOURS AND 28 CYCLES PRIOR TO THE INCIDENT.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this incident to be: IMPROPER DRILLING OF THE CROSS HOLE IN THE SLAT TRACK BEARING BOLT, WHICH LED TO ITS FAILURE FROM FATIGUE CRACKING.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH

Findings

1. (F) FLIGHT CONTROL,SLAT ATTACHMENT - CORRODED
2. (F) FLIGHT CONTROL,SLAT ATTACHMENT - FATIGUE
3. (C) FLIGHT CONTROL,SLAT - FAILURE,TOTAL
4. (C) MAINTENANCE,INSTALLATION - IMPROPER - MANUFACTURER
5. (C) INADEQUATE QUALITY CONTROL - MANUFACTURER

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	34
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	6500 hours (Total, all aircraft), 2000 hours (Total, this make and model), 200 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BOEING	Registration:	N571PE
Model/Series:	727-243 727-243	Engines:	3 Turbo Fan
Operator:	PEOPLE EXPRESS AIRLINES, INC.	Engine Manufacturer:	P&W
Operating Certificate(s) Held:	Flag carrier (121)	Engine Model/Series:	JT8D-9A
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	IAH, 98 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	None / 0 ft agl	Wind Speed/Gusts, Direction:	11 knots / , 260°
Temperature:	24°C	Visibility	15 Miles
Precipitation and Obscuration:			
Departure Point:	EL PASO, TX (ELP)	Destination:	HOUSTON, TX (IAH)

Airport Information

Airport:	HOUSTON INTERCONTINENTAL (IAH)	Runway Surface Type:	Concrete
Runway Used:	14	Runway Surface Condition:	Dry
Runway Length/Width:	12001 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	7 None	Aircraft Damage:	Minor
Passenger Injuries:	80 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Latitude, Longitude:			

Administrative Information

Investigator In Charge (IIC): TOMMY D MCFALL

Adopted Date: 11/28/1989

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/>.

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.