



National Transportation Safety Board Aviation Incident Final Report

Location:	BELLEVILLE, IL	Incident Number:	CHI87NA194
Date & Time:	08/22/1987, 1312 CDT	Registration:	N609TW
Aircraft:	BOEING 767-231ER	Aircraft Damage:	Minor
Defining Event:		Injuries:	3 Minor, 178 None

Flight Conducted Under: Part 121: Air Carrier - Scheduled

Analysis

DRG APCH TO ST. LOUIS AN UNSAFE RT MLGR INDICATION WAS NOTED. NORMAL AND ALT GR EXTENSION PROCEDURES WERE INEFFECTIVE IN LOWERING RT MLGR. DIVERTED TO SCOTT AFB AND LNDD WITH RT MLGR RETRACTED. EVAC WAS ORDERLY EXCEPT L3 DOOR WOULD NOT OPEN BECAUSE SLIDE DEPLOYMENT BAR WAS CAUGHT UNDER EXTERNALLY MOUNTED EMERG KIT. AT SFO, TWA HAD REPLACED NO. 3 BRAKE & WHL ASSY. PIN USED TO SECURE THE BRAKE ROD TO THE BRAKE TORQUE ARM WAS NOT INSTALLED PROPERLY AND FELL OUT DRG FLT, ALLOWING BRAKE TORQUE ARM TO MOVE HORIZ TO TOP OF GR DOOR PAD AND TO PREVENT EXTENSION OF GR. MAINT PERS NOT TRAINED ON BOEING DIFFERENCES. MAINT DONE IN EARLY AM HOURS AT GATE.

Probable Cause and Findings

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

Findings

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

Phase of Operation: APPROACH

Findings

1. (C) LANDING GEAR,NORMAL BRAKE SYSTEM - NOT SECURED
2. (C) MAINTENANCE,INSTALLATION - IMPROPER - COMPANY MAINTENANCE PERSONNEL
3. INSTRUCTIONS,WRITTEN/VERBAL - INADEQUATE - COMPANY/OPERATOR MANAGEMENT
4. LIGHT CONDITION - DARK NIGHT
5. (C) MAINTENANCE,INSPECTION - INADEQUATE - COMPANY MAINTENANCE PERSONNEL

Occurrence #2: GEAR NOT EXTENDED

Phase of Operation: LANDING

Findings

6. LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - FAILURE,PARTIAL
7. LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - JAMMED
8. MISC EQPT/FURNISHINGS,SLIDES - BINDING(MECHANICAL)

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	55, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	Seatbelt, Shoulder harness
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 Medical Exam:	10/01/1987
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	16900 hours (Total, all aircraft), 1193 hours (Total, this make and model), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BOEING	Registration:	N609TW
Model/Series:	767-231ER 767-231ER	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	22572
Landing Gear Type:	Retractable - Tricycle	Seats:	192
Date/Type of Last Inspection:	06/30/1987, Continuous Airworthiness	Certified Max Gross Wt.:	310000 lbs
Time Since Last Inspection:	614 Hours	Engines:	2 Turbo Fan
Airframe Total Time:	12336 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	JT9D-7R4D
Registered Owner:	TRANS WORLD AIRLINES, INC	Rated Power:	40550 hp
Operator:	TRANSWORLD AIRLINES	Air Carrier Operating Certificate:	Flag carrier (121)
Operator Does Business As:	TWA	Operator Designator Code:	TWAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	BLV, 435 ft msl	Observation Time:	1312 CDT
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 5000 ft agl	Temperature/Dew Point:	33°C / 21°C
Lowest Ceiling:	None / 0 ft agl	Visibility	7 Miles
Wind Speed/Gusts, Direction:	12 knots, 330°	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	SAN FRANCISCO, CA (SFO)	Type of Flight Plan Filed:	IFR
Destination:	ST LOUIS, MO (BLV)	Type of Clearance:	IFR
Departure Time:	1047 CDT	Type of Airspace:	Class E

Airport Information

Airport:	SCOTT AFB (DLV)	Runway Surface Type:	Concrete
Airport Elevation:	453 ft	Runway Surface Condition:	Dry
Runway Used:	32	IFR Approach:	None
Runway Length/Width:	7061 ft / 150 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	9 None	Aircraft Damage:	Minor
Passenger Injuries:	3 Minor, 169 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Minor, 178 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	GEORGE SEIDLEIN	Adopted Date:	04/18/1989
Additional Participating Persons:	LANCE CARTER; KANSAS CITY, R L MICHALSK; KANSAS CITY, WILLIAM F MCKINNEY; NEW YORK CITY, JIM S SIEGMAN; WASHINGTON, DC		
Publish Date:			
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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