



National Transportation Safety Board Aviation Incident Final Report

Location:	MOLINE, IL	Incident Number:	CHI89IA084
Date & Time:	05/03/1989, 2007 CDT	Registration:	N511AW
Aircraft:	FOKKER F-27 MK500	Aircraft Damage:	Minor
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 121: Air Carrier - Non-scheduled

Analysis

THE AIRPLANE LANDED WITH THE RIGHT MAIN LANDING GEAR NOT FULLY DOWN AND LOCKED. WHEN THE AIRPLANE TOUCHED DOWN, THE LANDING GEAR WOULD NOT SUPPORT THE WEIGHT OF THE AIRPLANE AND IT COLLAPSED. THE AIRPLANE SUSTAINED MINOR DAMAGE AND NEITHER OF THE TWO CREWMEMBERS ABOARD THE AIRPLANE WERE INJURED. THE LANDING GEAR MALFUNCTION HAD BEEN DISCOVERED WHEN THE LANDING GEAR WOULD NOT CYCLE PROPERLY DURING A MAINTENANCE CHECK FLIGHT. WHEN THE FLIGHT CREW ATTEMPTED TO LOWER THE LANDING GEAR AFTER RETRACTION, THE RIGHT MAIN LANDING GEAR WOULD NOT FULLY EXTEND. ATTEMPTS TO EXTEND THE LANDING GEAR USING EMERGENCY PROCEDURES WERE NOT SUCCESSFUL.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: MATERIAL FAILURE OF THE LANDING GEAR RETRACTION AND EXTENSION ASSEMBLY. INADEQUATE MAINTENANCE AND TROUBLESHOOTING PROCEDURES IN COMPANY DIRECTIVES WERE FACTORS IN THIS INCIDENT.

Findings

Occurrence #1: MAIN GEAR COLLAPSED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) LANDING GEAR,NORMAL RETRACTION/EXTENSION ASSEMBLY - BINDING(MECHANICAL)
2. (C) MAINTENANCE,INSPECTION - INADEQUATE - COMPANY/OPERATOR MANAGEMENT
3. (F) PROCEDURE INADEQUATE - COMPANY/OPERATOR MANAGEMENT

Factual Information

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	45, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	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 FAA Medical Exam:	01/25/1989
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	17121 hours (Total, all aircraft), 2262 hours (Total, this make and model), 14988 hours (Pilot In Command, all aircraft), 175 hours (Last 90 days, all aircraft), 66 hours (Last 30 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	FOKKER	Registration:	N511AW
Model/Series:	F-27 MK500 F-27 MK500	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	E 10690
Landing Gear Type:	Retractable - Tricycle	Seats:	53
Date/Type of Last Inspection:	04/21/1989, Continuous Airworthiness	Certified Max Gross Wt.:	45900 lbs
Time Since Last Inspection:	81 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	6005 Hours	Engine Manufacturer:	Rolls-Royce
ELT:	Installed, not activated	Engine Model/Series:	DART 552-7R
Registered Owner:	WILMINGTON TRUST CO.	Rated Power:	508 hp
Operator:	AIR WISCONSIN	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	AWAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Bright
Observation Facility, Elevation:	MLI, 589 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	2020	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 6000 ft agl	Visibility	12 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	16° C / 6° C
Precipitation and Obscuration:			
Departure Point:	CHICAGO, IL (ORD)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	1805 CDT	Type of Airspace:	Class D

Airport Information

Airport:	QUAD CITIES (MLI)	Runway Surface Type:	Concrete
Airport Elevation:	589 ft	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	Visual
Runway Length/Width:	8507 ft / 150 ft	VFR Approach/Landing:	Full Stop

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Minor
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	WILLIAM C BRUCE	Report Date:	08/26/1992
Additional Participating Persons:	P. KAMINSKI R. MITCHELL G. VANDEWHEUVEL		
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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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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).