



National Transportation Safety Board Aviation Accident Final Report

Location:	MERRILLVILLE, IN	Accident Number:	CHI87FA058
Date & Time:	12/30/1986, 0254 EST	Registration:	N74NL
Aircraft:	PIPER PA-31T	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

THE ACFT WAS ENROUTE TO THE CHICAGO MIDWAY ARPT. WHILE LETTING DOWN TO 16000 FT THE PILOT REPORTED HE WAS SHUTTING DOWN THE RIGHT ENG. ARTCC CLEARED THE ACFT TO 5000 FT. TEN MINUTES LATER ARTCC LOST RADIO TRANSPONDER AND MODE C CONTACT. 15 MINUTES LATER THE ACFT DESCENDED OUT OF THE 1800 FT OVERCAST AND STRUCK A 170 FT UTILITY TOWER AT THE 150 FT LEVEL. THE ACFT THEN GROUND IMPACTED AND BURNED. INVESTIGATION REVEALED THAT THE RT ENGINE HAD A BEARING FAILURE DUE TO LACK OF LUBRICATION.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: DESCENT - NORMAL

Findings

1. (F) ENGINE ASSEMBLY,BEARING - DISTORTED
 2. (F) ENGINE ASSEMBLY,BEARING - BINDING(MECHANICAL)
 3. EMERGENCY PROCEDURE - INADEQUATE - PILOT IN COMMAND
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Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: DESCENT - NORMAL

Findings

4. (F) ELECTRICAL SYSTEM - FAILURE,TOTAL
 5. (F) LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
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Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: UNKNOWN

Findings

6. (C) PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
 7. (F) FLIGHT/NAV INSTRUMENTS - FAILURE,PARTIAL
 8. (F) MINIMUM DESCENT ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
 9. ANXIETY/APPREHENSION - PILOT IN COMMAND
 10. (F) LIGHT CONDITION - DARK NIGHT
 11. (C) DESCENT - MISJUDGED - PILOT IN COMMAND
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Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial; Private	Age:	36, Male
Airplane Rating(s):	Multi-engine Land; Multi-engine Sea; Single-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/12/1986
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2170 hours (Total, all aircraft), 140 hours (Total, this make and model), 2110 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N74NL
Model/Series:	PA-31T PA-31T	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	7720010
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	12/07/1986, Annual	Certified Max Gross Wt.:	9000 lbs
Time Since Last Inspection:	31 Hours	Engines:	2 Reciprocating
Airframe Total Time:	6888 Hours	Engine Manufacturer:	P&W
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	PT-6A-28
Registered Owner:	WRIGHT INT'L EXPRESS INC.	Rated Power:	620 hp
Operator:	WRIGHT INT'L EXPRESS INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	MDW, 619 ft msl	Distance from Accident Site:	28 Nautical Miles
Observation Time:	0250 CST	Direction from Accident Site:	340°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	7 Miles
Lowest Ceiling:	Broken / 1100 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-1 °C / -3 °C
Precipitation and Obscuration:			
Departure Point:	LOUISVILLE, KY (SDF)	Type of Flight Plan Filed:	IFR
Destination:	CHICAGO, IL (MDW)	Type of Clearance:	IFR
Departure Time:	0140 EST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	EDWARD J MCAVOY	Report Date:	08/11/1988
Additional Participating Persons:	D. L CHICK; SOUTH BEND, IN L. MASON; VERO BEECH, FL W. MCLAWHON; CHICAGO, IL		
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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