



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	CHICAGO, IL	<b>Accident Number:</b>	CHI88FA128
<b>Date &amp; Time:</b>	06/05/1988, 1140 CDT	<b>Registration:</b>	N259MC
<b>Aircraft:</b>	DORNIER 228-201	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	3 None

**Flight Conducted Under:** Part 135: Air Taxi & Commuter - Scheduled

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## Analysis

THE CAPT WAS COMPLETING THE CHECKLIST DRG PAX LOADING & THE F/O SECURED THE DOOR & CAME FWD. THE CAPT STARTED THE #2 ENG& BGN SINGLE ENG TAXI WHILE ATMTG A RGT TURN TO STAY CLR OF A PARKED DORNIER (N264MC). AS N259MC BGN ROLLING FWD, THE CAPT NOTED THE NOSEWHEEL STEERING (NWS) WAS INOP. HE APPLIED NORMAL BRAKING, BUT GOT NO RESPONSE & N259MC BGN A LEFT TURN. THE CAPT SWITCHED THE HYDR PUMP FM 'NORMAL' TO 'MAN ON' (MANUAL); HOWEVER, BFR HYD PRES WAS BUILT UP BY BATTERY PWR, N259MC COLLIDED WITH N264MC. AN INV REVEALED THE #2 GENERATOR (GEN) WAS NOT CONNECTED TO THE GEN BUS. NO PART MALFUNCTION/FAILURE WAS FND DRG CHECKS OF THE ACFT SYSTEMS. THE NWS & NORMAL BRAKES WERE ELECTRO-HYDRAULICALLY ACTUATED. W/O GENERATOR PWR, THE HYD SYS, NWS & NORMAL BRAKES WOULD NOT HAVE BEEN OPERATING WITH THE HYD SW IN THE 'NORMAL' PSN. AN EMERG (PARKING) BRAKE WAS AVAILABLE, BUT IT WAS NOT USED. THE TRAINING PROGRAM, OPN MANUAL & DORNIER 228-SERIES PILOT OPERATING HANDBOOK DID NOT ADDRESS SINGLE-ENG GROUND OPN OR THE EFFECTS OF AN INTERRUPTION IN GENERATOR PWR.

## Probable Cause and Findings

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

## Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: TAXI - TO TAKEOFF

### Findings

1. (F) CREW/GROUP COORDINATION - INADEQUATE - PILOT IN COMMAND
2. (F) ELECTRICAL SYSTEM,GENERATOR - NOT ENGAGED
3. (C) HYDRAULIC SYSTEM - NOT ENGAGED
4. LANDING GEAR,STEERING SYSTEM - NOT OPERATING
5. LANDING GEAR,NORMAL BRAKE SYSTEM - NOT OPERATING
6. (C) BRAKES(EMERGENCY) - NOT USED - PILOT IN COMMAND
7. (F) AIRCRAFT MANUALS,SYSTEM INFORMATION - INADEQUATE
8. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
9. (F) PROCEDURE INADEQUATE - MANUFACTURER

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Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: TAXI - TO TAKEOFF

### Findings

10. (F) OBJECT - AIRCRAFT PARKED/STANDING

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor	<b>Age:</b>	37, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim.	<b>Last Medical Exam:</b>	05/31/1988
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	4300 hours (Total, all aircraft), 300 hours (Total, this make and model), 2800 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	DORNIER	<b>Registration:</b>	N259MC
<b>Model/Series:</b>	228-201 228-201	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	8118
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	19
<b>Date/Type of Last Inspection:</b>	05/22/1988, 100 Hour	<b>Certified Max Gross Wt.:</b>	12500 lbs
<b>Time Since Last Inspection:</b>	81 Hours	<b>Engines:</b>	2 Turbo Prop
<b>Airframe Total Time:</b>	2007 Hours	<b>Engine Manufacturer:</b>	AIRESEARCH
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	TPE-331-5
<b>Registered Owner:</b>	MANUFACTURER'S HANOVER TRUST	<b>Rated Power:</b>	715 hp
<b>Operator:</b>		<b>Air Carrier Operating Certificate:</b>	Commuter Air Carrier (135)
<b>Operator Does Business As:</b>	MIDWAY COMMUTER	<b>Operator Designator Code:</b>	ML

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MDW, 619 ft msl	Observation Time:	1140 CDT
Distance from Accident Site:	1 Nautical Miles	Direction from Accident Site:	180°
Lowest Cloud Condition:	Scattered / 20000 ft agl	Temperature/Dew Point:	28° C / 7° C
Lowest Ceiling:	None / 0 ft agl	Visibility	15 Miles
Wind Speed/Gusts, Direction:	10 knots, 300°	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	(MDW)	Type of Flight Plan Filed:	IFR
Destination:	SPRINGFIELD, IL (SPI)	Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	

## Airport Information

Airport:	MIDWAY (MDW)	Runway Surface Type:	Concrete
Airport Elevation:	619 ft	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	STEPHEN A WILSON	Adopted Date:	08/07/1989
Additional Participating Persons:	E OCHOA; W. 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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