



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	NEW ORLEANS, LA	<b>Accident Number:</b>	FTW98FA170
<b>Date &amp; Time:</b>	04/02/1998, 2232 CST	<b>Registration:</b>	N21LL
<b>Aircraft:</b>	Piper PA-28-235	<b>Injuries:</b>	3 Fatal, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

The airplane impacted a lake following an uncontrolled descent after the pilot experienced spatial disorientation at night. The pilot was an instrument approach to runway 18R when he reported to air traffic control that he had a 'full failure;'. One minute later he reported a 'static failure,' and shortly afterwards he stated that the 'DG' was out of order. Air traffic control then lost radio and radar contact with the airplane. The controller who was tracking the airplane stated that it appeared as if the airplane was 'going around in circles,' just before it disappeared from the radar scope. A survivor was rescued from the lake the following morning and reported that the pilot tapped on the instrument 'with the blue horizon' and stated that 'this instrument is not working.' A post-accident examination of the vacuum pump, by the NTSB Materials Laboratory, revealed that the vacuum pump failed in-flight. Post accident examination of the electrically driven turn coordinator did not produce sufficient evidence to determine whether or not it was functioning at impact.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inability to maintain control of the airplane after experiencing spatial disorientation. Factors were the total failure of the vacuum pump, fog, drizzle, and night conditions.

## Findings

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

### Findings

1. (C) ENGINE ACCESSORIES,VACUUM PUMP - FAILURE,TOTAL
2. FLIGHT/NAV INSTRUMENTS,ATTITUDE INDICATOR - INOPERATIVE
3. FLIGHT/NAV INSTRUMENTS,DIRECTIONAL GYRO - INOPERATIVE

Occurrence #2: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: APPROACH

### Findings

4. WEATHER CONDITION - FOG
5. WEATHER CONDITION - DRIZZLE/MIST
6. LIGHT CONDITION - NIGHT
7. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
8. SPATIAL DISORIENTATION - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Findings

### 9. TERRAIN CONDITION - WATER

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	25
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	Airplane
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	300 hours (Total, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N21LL
<b>Model/Series:</b>	PA-28-235 PA-28-235	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	NORTH AMERICAN FLIGHT ACADEMY	<b>Engine Manufacturer:</b>	Lycoming
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	O-540-B4B5
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument Conditions	<b>Condition of Light:</b>	Night/Dark
<b>Observation Facility, Elevation:</b>	NEW, 9 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	Broken / 600 ft agl	<b>Wind Speed/Gusts, Direction:</b>	8 knots / , 160°
<b>Temperature:</b>	23° C	<b>Visibility</b>	3 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	DENTON, TX (DTO)	<b>Destination:</b>	LAKEFRONT, LA (NEW)

## Airport Information

<b>Airport:</b>	LAKEFRONT AIRPORT (NEW)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	18R	<b>Runway Surface Condition:</b>	
<b>Runway Length/Width:</b>	6879 ft / 150 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	2 Fatal, 1 Minor	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Latitude, Longitude:</b>			

## Administrative Information

Investigator In Charge (IIC): TIMOTHY A BORSON      Adopted Date: 09/28/1999

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](mailto: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.