



# National Transportation Safety Board

## Aviation Accident Data Summary

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<b>Location:</b>	New Gretna, NJ	<b>Accident Number:</b>	ERA17FA052
<b>Date &amp; Time:</b>	11/19/2016, 1902 EST	<b>Registration:</b>	N4976K
<b>Aircraft:</b>	RYAN NAVION	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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### Analysis

The private pilot was conducting a personal cross-country flight. The pilot's friend reported that he provided weather information to the pilot about 1 hour before the flight; no record was found indicating that the pilot or the friend obtained a formal weather briefing before he departed for the night cross-country flight. A review of weather information revealed that, about 1 hour 20 minutes into the flight, as the airplane was nearing the destination airport, it encountered a strong cold front boundary with associated severe wind shear and turbulence. Review of radar data revealed that, during the following 13 minutes, the flight completed numerous course deviations, including three complete left circuits and two right circuits, before impacting wooded terrain. Review of the last 3 minutes of radar data revealed that the airplane's altitude oscillated between 2,100 and 200 ft mean sea level (msl) as it completed the two right circuits and one of the left circuits before it impacted terrain. The last target was recorded about 2,000 ft southeast of the accident site at an altitude of 525 ft msl. Examination of the wreckage did not reveal any preimpact mechanical malfunctions or failures that would have precluded normal operation. Based on the evidence, it is likely that the airplane encountered wind shear and turbulent conditions upon encountering the strong cold front boundary and that the pilot subsequently lost airplane control.

### Flight Events

Enroute-cruise - Windshear or thunderstorm  
Enroute-cruise - Loss of control in flight  
Uncontrolled descent - Collision with terr/obj (non-CFIT)

### Probable Cause

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

The pilot's inadequate preflight weather planning and in-flight weather evaluation, which resulted in an encounter with a strong cold front and the pilot's subsequent loss of airplane control.

### Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-(general)-Not attained/maintained - C

Personnel issues-Task performance-Planning/preparation-Weather planning-Pilot - C  
 Personnel issues-Action/decision-Info processing/decision-Identification/recognition-Pilot - C  
 Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C  
 Environmental issues-Conditions/weather/phenomena-Convective weather-(general)-Effect on operation - C

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	75
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	800 hours (Total, all aircraft), 999999 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	RYAN	<b>Registration:</b>	N4976K
<b>Model/Series:</b>	NAVION A	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	On file	<b>Engine Manufacturer:</b>	Continental
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	E-185
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

### Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Night
<b>Observation Facility, Elevation:</b>	MJX, 86 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	None	<b>Wind Speed/Gusts, Direction:</b>	5 knots / , 150°
<b>Temperature:</b>	12° C	<b>Visibility</b>	3 Miles
<b>Precipitation and Obscuration:</b>	Mist; No Precipitation		
<b>Departure Point:</b>	SALUDA, VA (W75)	<b>Destination:</b>	TOMS RIVER, NJ (MJX)

### Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Latitude, Longitude:</b>	39.664722, -74.468056 (est)		

## Administrative Information

Investigator In Charge (IIC):	Robert J Gretz	Adopted Date:	05/16/2017
Note:	The NTSB traveled to the scene of this accident.		
Investigation Docket:	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94403">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94403</a>		

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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.