



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	KINGWOOD, WV	<b>Accident Number:</b>	NYC01LA050
<b>Date &amp; Time:</b>	12/03/2000, 1430 EST	<b>Registration:</b>	N97MS
<b>Aircraft:</b>	Miller SLINGSHOT	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

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## Analysis

The pilot departed the airport for a local flight and when he failed to return, a search was initiated for the airplane. The airplane was found 2 days later in a heavily wooded area 7 miles south of the airport. Examination of the airplane and an engine test run failed to reveal any mechanical deficiencies. Information downloaded from the pilot's GPS revealed the airplane departed the airport and flew southwest in a relatively straight line to the accident site. The last eight 'track points' indicated that the airplane initiated a gradual left turn from a heading of 272 degrees to 111 degrees. During the turn, the airplane's altitude decreased from 626 to 383 feet, and the airspeed decreased from 86 mph to 52.2 mph. Examination of the airplane's logbook revealed that it had accumulated 40 hours of flight time since it was certificated for flight on January 30, 1998. Examination of the pilot's logbook revealed about 125 hours of flight experience in the accident airplane, from February 15, 1998 to December 30, 1998.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain control of the airplane, and subsequent collision with trees.

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT

### Findings

1. OBJECT - TREE(S)
2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

## Factual Information

### HISTORY OF FLIGHT

On December 3, 2000, about 1430 eastern standard time, a homebuilt Slingshot, N97MS, was substantially damaged when it collided with trees near Kingwood, West Virginia. The certificated private pilot/owner was fatally injured. Visual meteorological conditions prevailed and no flight plan was filed for the personal flight conducted under 14 CFR Part 91.

The airplane departed Valley Point Airport (WV29), Valley Point, West Virginia, on December 3, 2000, about 1400, and was reported missing later that day. An ALNOT was issued, and the airplane was located on December 5, 2000, by the West Virginia State Police. The airplane was found in a mountainous, heavily wooded area about 7 miles south of WV29, at 39 degrees, 29.7 minutes north latitude, 79 degrees, 41.7 minutes west longitude.

### PILOT INFORMATION

The pilot held a private pilot certificate with a rating for airplane single engine land. He reported 1,000 hours of total flight experience on his most recent FAA third class medical, issued on May 7, 1999.

Examination of the pilot's logbook revealed four entries, which described his flight experience in the accident airplane. The first entry stated that 26.5 flight hours were accumulated from February 15, 1995 to January 23, 1998. The second entry noted 23.5 hours of flight time from February 15, 1998 to May 5, 1998, with a note that stated, "3 takeoffs and landings." The third entry was dated from May 5, 1998 to August 5, 1998 and listed 60 hours of flight time, with an entry stating, "20 or more takeoffs and landings." The final entry made in reference to the accident airplane noted 15 flight hours accumulated during the period from August 6, 1998 to December 30, 1998.

### AIRCRAFT INFORMATION

The airplane was built by the pilot, and certificated for flight on January 30, 1998. Examination of the airplane's logbook revealed that it had completed ten flights between January 30, 1998 and April 20, 1998, and accumulated 40 flight hours. The final entries in the logbook indicated annual condition inspections were performed on January 10, 1999 and January 15, 2000.

### METEOROLOGICAL INFORMATION

The weather reported at Valley Point Airport, at 1453, included clear skies, visibility 10 miles, wind from 020 degrees at 5 knots, temp 32 degrees Celsius, and dew point 13 degrees Celsius.

### WRECKAGE AND IMPACT INFORMATION

Examination of the airplane by a Federal Aviation Administration (FAA) inspector revealed that all major components were accounted for at the accident scene. The airplane came to rest on an easterly heading, on the bank of a ravine, about 300 yards from a logging trail. Impact scars were noted in the tops of 75-foot trees located 25 yards from the wreckage.

The airplane came to rest partially inverted. The nose and the cockpit were upright and compacted at the base of a tree. The rear portion of the fuselage was folded upward 160 degrees, and was inverted above the cockpit area. The right wing was disconnected from the fuselage and located beneath the airplane; the left wing was still attached to the airplane and

displayed impact damage. The fabric covering both wings was torn off. Control continuity was confirmed from the control column to all control surfaces.

The engine came to rest upside down on top of the airplane, still attached to rear portion of the fuselage. Little to no damage was observed to the four-stroke, four-cylinder Rotax engine. The spark plugs were removed and were light gray in color. The crankshaft turned freely, and thumb compression was obtained in all four cylinders. Both carburetors were loose, and both carburetor fuel bowls were removed and full of auto gas. The auto gas contained no visible contamination. Auto gas was observed in both fuel lines to the carburetors, and cable continuity was observed from the throttle to the carburetors. The slide valves and butterfly valves in the carburetors moved freely. The radiator, which was located forward of the engine, appeared clean and displayed no damage. The exhaust system was intact and also exhibited no damage.

The propeller remained attached to the engine and was intact. Two of the three propeller blades displayed no damage, and one blade displayed impact damage.

The altimeter and airspeed indicator were recovered from the cockpit, and indicated 3,220 feet and 75 mph respectively. The fuel selector was selected to the "on" position and the ignition switch was also "on."

The pilot's GPS was found in the airplane and was operational. It was retained for further examination.

#### TESTS AND RESEARCH

The engine was removed from the airplane and sent to a Rotax test facility in Sebring, Florida. The engine was examined on May 15, 2001, under the supervision of the FAA. The examination revealed that the engine started through the normal start sequence, and ran continuously for several minutes. The throttle was advanced to 3,000 rpm to check both ignitions, and a 200-rpm drop was noted. This amount was in accordance with the current operators manual. The throttle was then advanced to full power, and the engine ran smoothly for approximately 4 minutes. The throttle was reduced to idle and then moved to the full forward position, to simulate a "go around" maneuver. The engine accelerated smoothly, and without hesitation. The maneuver was simulated several times and no malfunctions were noted.

The information from the pilot's GPS was downloaded and examined. The information revealed that the airplane departed Valley Point Airport, and flew southwest in a relatively straight line to the accident site. The last eight 'track points' indicated that the airplane initiated a gradual left turn from a heading of 272 degrees to 111 degrees. As the airplane continued the turn, the altitude decreased from 626 feet to 383 feet. At the same time, the airspeed decreased from 86 mph to 52.2 mph.

#### MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was conducted on the pilot by the Chief Medical Examiner, in Charleston, West Virginia.

Toxicological testing was performed on the pilot by the Toxicological and Accident Research Laboratory, Oklahoma City, Oklahoma.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	Single-engine Land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	05/07/1999
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	05/28/1999
<b>Flight Time:</b>	970 hours (Total, all aircraft), 125 hours (Total, this make and model), 540 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Miller	<b>Registration:</b>	N97MS
<b>Model/Series:</b>	SLINGSHOT SLINGSHOT	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental	<b>Serial Number:</b>	4401700
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	01/15/2000, Annual	<b>Certified Max Gross Wt.:</b>	850 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	40 Hours at time of accident	<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	912UL
<b>Registered Owner:</b>	MICHAEL MILLER	<b>Rated Power:</b>	65 hp
<b>Operator:</b>	MICHAEL MILLER	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MGW, 1248 ft msl	Distance from Accident Site:	13 Nautical Miles
Observation Time:	1453 EST	Direction from Accident Site:	290°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.49 inches Hg	Temperature/Dew Point:	0°C / -12°C
Precipitation and Obscuration:			
Departure Point:	VALLEY POINT, WV (WV29)	Type of Flight Plan Filed:	None
Destination:	(WV29)	Type of Clearance:	None
Departure Time:	1400 EST	Type of Airspace:	Class G

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	39.485278, -79.685278

## Administrative Information

Investigator In Charge (IIC):	Jill Andrews	Report Date:	09/10/2002
Additional Participating Persons:	ED SHIELDS; FEDERAL AVIATION ADMINISTRATION; CHARLESTON, WV		
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:pubinquiry@ntsb.gov">pubinquiry@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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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](#).