



# Aviation Investigation Final Report

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<b>Location:</b>	Greenwater, Washington	<b>Accident Number:</b>	SEA03LA170
<b>Date &amp; Time:</b>	August 16, 2003, 15:45 Local	<b>Registration:</b>	N2054F
<b>Aircraft:</b>	Avid Magnum	<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

A witness who was staying in a campground in close proximity to the accident site reported hearing a small plane flying in a southerly direction, and as it passed overhead "the engine missed once, and then caught again and continued running as the plane continue south." As the plane continued south the witness stated that he did not hear any additional problems, but the engine appeared to be running somewhat roughly, and as the plane continued further south he assumed everything was ok. Several minutes later he heard sirens moving south. Examination of the wreckage revealed the airplane went down steeply between two trees, there was no fire, and there was a significant fuel spill. Examination of the airframe, flight controls, engine assembly and accessories revealed no evidence of a precrash mechanical failure or malfunction. All components necessary for flight were present at the crash site. An autopsy on the pilot revealed arteriosclerosis of coronary arteries, focal, moderate to marked, and arteriosclerosis of aorta, mild. "Toxicological tests indicated nordiazepam (0.024 ug/ml) detected in blood, and nordiazepam, oxazepam, and temazepam detected in urine."

## 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 aircraft control while maneuvering for undetermined reasons.

### Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: MANEUVERING

#### Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. REASON FOR OCCURRENCE UNDETERMINED

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Occurrence #2: IN FLIGHT COLLISION WITH OBJECT  
Phase of Operation: DESCENT - UNCONTROLLED

#### Findings

3. OBJECT - TREE(S)

## Factual Information

On August 16, 2003, approximately 1545 Pacific daylight time, an Avid Magnum experimental aircraft, N2054F, registered to and being flown by a private pilot, was substantially damaged after impacting terrain while maneuvering near the Ranger Creek Airport, Greenwater, Washington. Visual meteorological conditions prevailed and no flight plan had been filed for the 14 CFR Part 91 personal flight. The pilot was fatally injured. The flight departed the Pierce County Airport (Thun Field), Puyallup, Washington, at 1515.

According to a witness who was staying in a campground in close proximity to the accident site, he heard a small plane flying in a southerly direction over the campground, and as it passed overhead "the engine missed once, and then caught again and continued running as the plane continued south." The witness further reported that he heard the plane continuing on and did not hear any additional problems, but "[the] engine appeared to be running somewhat roughly." The witness stated that he looked up to see if he could see the plane, but tree cover was too thick. The witness further stated "the engine continued to run as the plane continued south, and I assumed everything was ok. Several minutes later I heard sirens moving south."

An FAA inspector, who traveled to the accident site, reported the airplane went down steeply between two trees. The airplane's propeller splintered, and while there was no fire, there was a significant fuel spill.

A post accident examination of the aircraft was conducted by an NTSB Air Safety Investigator. The results of the investigator's examination revealed continuity to all flight controls. Engine rotation was confirmed to the accessory section, compression was developed in each cylinder, and the ignition harness was intact. The mixture, carburetor heat, and throttle controls were in the full forward position. Additionally, one fuel tank was breached with no fuel detected, while there was fuel present in the second fuel tank. The investigator also reported the carburetor had been torn off its mounting flange and was not located.

An autopsy was performed by the Pierce County Medical Examiner's Office, Tacoma, Washington, on August 18, 2003. The cause of the pilot's death was determined to be from "multiple injuries". Included in the Summary Of Case Findings was arteriosclerosis of coronary arteries, focal, moderate to marked, and arteriosclerosis of aorta, mild. A toxicological report from the FAA's Civil Aeromedical Institute of Oklahoma City, Oklahoma, was negative for carbon monoxide, cyanide, and ethanol. Nordiazepam 0.024 (ug/ml, ug/g) detected in blood; Nordiazepam 0.106 (ug/ml, ug/g) detected in urine; Oxazepam 0.134 (ug/ml ug/g) detected in urine; Temazepam 0.223 (ug/ml ug/g) detected in urine.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	58, 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>	
<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 Invalid Medical for flight	<b>Last FAA Medical Exam:</b>	March 9, 1994
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	500 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Avid	<b>Registration:</b>	N2054F
<b>Model/Series:</b>	Magnum	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	35M
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	1750 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	36 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>		<b>Engine Model/Series:</b>	O-320
<b>Registered Owner:</b>	John A. Harper	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	GRF,302 ft msl	<b>Distance from Accident Site:</b>	50 Nautical Miles
<b>Observation Time:</b>	15:55 Local	<b>Direction from Accident Site:</b>	275°
<b>Lowest Cloud Condition:</b>	Few / 3500 ft AGL	<b>Visibility</b>	25 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	2 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	310°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.18 inches Hg	<b>Temperature/Dew Point:</b>	25°C / 12°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Puyallup, WA (1S0)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Greenwater, WA (21W)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	15:15 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	47.021667,-121.529724

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Little, Thomas
<b>Additional Participating Persons:</b>	William J Reichardt; Federal Aviation Administration; Renton, WA
<b>Original Publish Date:</b>	March 30, 2004
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=57712">https://data.ntsb.gov/Docket?ProjectID=57712</a>

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).