



National Transportation Safety Board Aviation Accident Factual Report

Location:	Brooks, OR	Accident Number:	SEA04LA024
Date & Time:	12/02/2003, 1500 PST	Registration:	N183T
Aircraft:	Shear Titan Tornado	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

HISTORY OF FLIGHT

On December 2, 2003, approximately 1500 Pacific standard time, a Shear Titan Tornado, N183T, experimental single-engine airplane, sustained substantial damage after impacting a power line followed by terrain while maneuvering near Brooks, Oregon. The aircraft was registered to a private individual. The uncertificated pilot, sole occupant of the aircraft, was fatally injured. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 CFR Part 91 personal flight. The aircraft departed a private airstrip located on the northeast side of Salem, Oregon, at an unknown time. The aircraft's destination was also unknown.

In written reports furnished by local law enforcement personnel to the NTSB investigator-in-charge (IIC), 7 witnesses supplied information relative to the accident.

Witness #1, a private pilot, reported observing an aircraft flying west of Interstate 5, then proceed east across the Interstate between 500 and 600 feet above ground level. The witness stated he then observed the aircraft circling back to the west, "...when I noticed how slow it was flying." The witness reported seeing the aircraft's nose "rise to an extremely high angle, then appeared to hang for a moment before rolling over on its back, and then immediately plunge toward the earth." The witness further stated that he observed the aircraft, "... in an inside-arching curve before seeing sparks fly up, when he apparently went through electrical lines."

Witnesses #2, #3, and #4, reported hearing a problem with the engine, as if it were "cutting in and out," before seeing it nose dive into a set of power lines.

Witnesses #5 reported hearing the engine "open all the way", while witness #6 reported the engine [was] "at full throttle" before seeing it nose dive and hitting power lines.

Witness #7, an on duty fireman, reported, "...the airplane was rather low and had a low pitch to the engine, not a regular sound. I observed the plane fly overhead and [it] was rather close,

almost hitting the fire station. The plane just missed by inches." The witness said he then observed the airplane pitch to the right before it went into a dive, losing sight of it over the fire station.

The aircraft came to rest on its left side in a ditch with its wings and fuselage twisted. There was no post crash fire.

PERSONNEL INFORMATION

The pilot was uncertificated, possessing neither a valid pilot's certificate or a valid airman's medical certificate. According to records provided by a family member, the pilot had accumulated 37 hours in the accident aircraft, 8 hours in the preceding 30 days, and 33 hours of flight time in the last 90 days.

In a telephone interview with the IIC, the pilot's wife reported that her husband had been an insulin dependant diabetic since March of 1977. The pilot's wife further reported that at the time of the accident her husband was taking two types of insulin daily; Novolog in the morning, and one which she could not remember in the afternoon. Medical records supplied by the pilot's family indicate that as recently as 5 weeks prior to the accident, the pilot suffered from memory lapses and dangerously low blood sugar. The pilot's wife also stated that her husband had undergone a quintuple heart bypass operation in 1999.

The pilot's wife reported that she spoke with her husband by telephone on the morning of the accident, relating to the IIC that he took his insulin at 10:15 am and then ate breakfast, but was not aware of the contents. The pilot's wife further reported that subsequent to the accident, she and another family member traveled to the departure airport to retrieve the pilot's car. The wife stated that the contents of the car included an unopened package of hot dogs, which included a receipt showing they were purchased on the day of the accident at 12:35 pm. The pilot's wife also stated that she would talk with her husband every morning while she was at work to see how he was and "what his numbers were." She said this was a daily routine, Monday through Friday. She also informed the IIC that on the day of the accident her husband had prescriptions for the following medications: Prinivle, 5mg daily; Desyrel, 50 mg daily; Levothroid, 0.1 mg daily; Prozac, 20 mg, 2 times a day; Zocar, 20 mg daily. The pilot's wife said her husband also took 1 coated aspirin daily, 4 Ibprophens daily, and 1 multivitamin daily.

METEOROLOGICAL INFORMATION

At 1456, the weather reporting facility located at the McNary Field Airport (SLE), Salem, Oregon, located 8 nautical miles south of the accident site, reported wind 200 degrees at 7 knots, visibility 7 statute miles, broken clouds at 6,000 feet, broken clouds at 7,000 feet, overcast clouds at 8,500 feet, temperature 18 degrees C, dew point 8 degrees C, and an altimeter setting of 30.11 inches of Mercury.

WRECKAGE AND IMPACT INFOMRMATION

Two FAA inspectors performed the post-accident inspection of the airplane at a secured storage facility where the wreckage had been recovered to on December 3, 2003.

The inspectors reported that flight control continuity was checked and confirmed throughout the aircraft, and engine control continuity was confirmed from the propeller through the accessory section. No anomalies were detected in either examination. The inspectors further reported that an examination of the engine confirmed engine compression, the igniter plugs were checked with no anomalies found, and the carburetor was observed separated from its mounting pad. The inspectors stated, "Rub marks and tears along the inboard section of the left wing indicated the aircraft had impacted power lines." The inspectors further stated, "We confirmed that the engine was under power when it crashed, as evident by the prop damage."

No anomalies were found with the airplane that could be associated with any pre-impact condition.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy on the pilot was performed by the Oregon State Medical Examiner, Portland, Oregon, on December 3, 2004. The cause of death was attributed to multiple blunt force traumatic injuries due to an aircraft mishap. As reported by Mr. Glenn Rudner, M.D., Deputy State Medical Examiner, under "Internal Examination" is noted ".....Cardiovascular System: The heart weighs 650 grams. ...graft segments originate within the proximal aorta and grossly appear to override the proximal through distal portions of the right and left native coronary vessels. Sectioning through the bypass graft segments is unremarkable and sectioning through the right and left mainstem and circumflex vessels reveals widespread and severe (90%) luminal obliteration throughout their proximal portions by atherosclerotic debris. Sectioning through the myocardium reveals an unremarkable, re-brown pattern, with no evidence of recent or remote infarction. ..."

The NTSB Medical Officer reviewed the pilot's medical records which were supplied by the family of the pilot. According to the hospital summary dated April 27, 1999, under "Discharge Diagnoses, coronary artery disease: he has 30% distal left main circumflex, 90% first obtuse marginal, 60% second obtuse marginal, proximal to mid left anterior descending artery 80%, 60% first diagonal, moderate disease of the mid right coronary. Left ventricular ejection fraction and diastolic pressure normal. Coronary artery bypass graft....left internal mammary graft to left anterior descending artery, saphenous vein graft to first obtuse marginal, second obtuse marginal, diagonal, posterior lateral branch..." Additional information is contained in a factual medical report that is contained in the docket.

A Forensic Toxicology Fatal Accident Report was prepared by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma. The report indicated the following results:

No Carbon Monoxide detected in blood.

No Cyanide detected in blood.

No Ethanol detected in the blood.

0.065 (ug/ml, ug/g) Diphenhydramine detected in blood.

Diphenhydramine detected in liver.

0.772 (ug/ml, ug/g) Fluoxetine detected in blood.

Fluoxetine detected in liver.

0.552 (ug/ml, ug/g) Norfluoxetine detected in blood.

Norfluoxetine detected in liver.

0.293 (ug/ml, ug/g) Trazodone detected in blood.

Trazodone detected in liver.

Diphenhydramine, commonly referred to as Benadryl, is an over-the-counter antihistamine with sedative effects. Fluoxetine is a prescription antidepressant often known by the trade name Prozac. Norfluoxetine is a metabolite of Fluoxetine. Trazodone is a prescription antidepressant used to relieve mental depression and depression that sometimes occurs with anxiety.

Medical records provided by a family member documents that as recently as 5 weeks prior to the accident the pilot suffered from memory lapses and dangerously low blood sugar.

ADDITIONAL INFORMATION

The wreckage was released to the owner's representative on December 5, 2003.

Pilot Information

Certificate:	None	Age:	56, Male
Airplane Rating(s):	None	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	203 hours (Total, all aircraft), 37 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Shear	Registration:	N183T
Model/Series:	Titan Tornado	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	T93277SOHK0065
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Hirth
ELT:		Engine Model/Series:	2702
Registered Owner:	David J. Shear	Rated Power:	40 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SLE, 214 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	1456 PST	Direction from Accident Site:	190°
Lowest Cloud Condition:	Thin Broken / 5786 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 5786 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.11 inches Hg	Temperature/Dew Point:	13° C / 8° C
Precipitation and Obscuration:			
Departure Point:	Salem, OR	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:		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:	45.047222, -122.955556

Administrative Information

Investigator In Charge (IIC):	Thomas M Little
Additional Participating Persons:	Alfred Dilay Jr.; Federal Aviation Administration; Hillsboro, OR
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 , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .