



National Transportation Safety Board Aviation Accident Final Report

Location:	BAYFIELD, CO	Accident Number:	DEN99FA158
Date & Time:	09/01/1999, 1100 MDT	Registration:	N95PW
Aircraft:	Wroblewski RV-4	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

The pilot was flying his homebuilt airplane as a flight of two with another aircraft. The accident airplane was trailing behind the other aircraft, and both airplanes flew low over their friend's house. Several witnesses, including the friend, observed the trailing aircraft fly overhead. The left wing tipped, and the airplane rolled to the left, then headed toward the ground with the nose pointed downward. The aircraft struck several trees then impacted the ground.

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 aircraft 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

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT

Findings

2. TERRAIN CONDITION - HIGH TERRAIN
3. TERRAIN CONDITION - MOUNTAINOUS/HILLY
4. OBJECT - TREE(S)

Factual Information

HISTORY OF FLIGHT

On September 1, 1999, approximately 1100 mountain daylight time, a Wroblewski RV-4 homebuilt aircraft, N95PW, registered to and operated by the pilot, was destroyed when it collided with terrain while maneuvering 6 miles northeast of Bayfield, Colorado. The private pilot and one passenger were fatally injured. The flight was being conducted under Title 14 CFR Part 91, and no flight plan had been filed. The aircraft departed Stevens Field, Pagosa Springs, Colorado, approximately 1030. Visual meteorological conditions prevailed.

According to a friend of the pilot, he departed Pagosa Springs in his privately owned airplane, N43FH. N95PW departed the airport shortly thereafter and followed N43FH, as they had previously made arrangements to fly to Durango, Colorado, and back as a flight of two. According to the passenger aboard N43FH, the weather was "smooth with good visibility under a high overcast" cloud layer.

During their return to the airport, both aircraft flew over their friend's house in Bayfield. After passing her house, the pilot of N43FH radioed the pilot of N95PW "several times on the radio and got no answer. At this time, I turned around and retraced my flight. I found the wreckage about 1/4 to 1/2 mile east" of their friend's house in a clearing of trees. According to him, he and his friend regularly flew together as a flight of two and "if there had been mechanical problems, he probably would have keyed the mike."

A witness who was cutting firewood in a gathering of trees on his friend's property observed two airplanes flying overhead north to south "low and fast" west of his location. He stated that "in a matter of a few minutes they made a second pass directly overhead." He observed the airplane "do a spin immediately followed by a loop" with the airplane's nose pointed toward the ground. He then heard the sound of impact. He stated that the engine "was constant. No engine trouble. It just got louder and higher pitched." Immediately following the accident, he ran to the accident scene. He stated that he smelled gas and could hear the sound of gas dripping.

According to the friend in the house the two airplanes overflew, she heard the sound of engines and went outside to wave to her friends. N43FH flew overhead first, followed by N95PW. She stated that the pilot of N95PW's left wing was tipped down (in her written statement she indicated the right wing was tipped, and later clarified she meant the left wing). She watched both airplanes fly overhead, and was looking from the west at the trailing airplane's tail. She estimated the airplane to be approximately 300 feet above ground level (agl) at the time it passed over her house. She stated the airplane "appeared to be slowing gaining altitude. I'd guess it gained approximately 30 feet in a gentle climb." She looked away for no "more than a second," then saw the "top side of the airplane, the wings looked large and wide... The plane appeared to be headed straight down... Then I lost sight of the plane in the pine treetops and heard it crash."

Another witness was working one-half mile from the accident site toward the west on the same inclining ridge. He observed the two airplanes pass to the south, then fly west. He saw them "flying far apart coming from the east going west, and they flew around three times clockwise... The lead airplane was higher than the other one." He stated that the trailing aircraft's "left wing went down, and the nose dropped" toward the ground. According to him, the "plane

look[ed] like it was going to come back up but it was too low." He then heard what he believed to be the sound of an airplane crash.

PERSONNEL INFORMATION

The pilot was born in 1939. He held a Private Pilot Certificate dated October 12, 1990, with an airplane single-engine land rating. He also held a Repairman Experimental Aircraft Builder dated July 20, 1995, with the limitation, "Inspection certificate for experimental aircraft make Wroblewski, model RV-4, serial number 2976, certification date: 20 may 1995." In addition, he possessed a third class airman medical certificate, dated May 19, 1999, with the limitation, "Must have available glasses for near vision."

The pilot's most recent logbook was made available for review. The first entry begins on May 26, 1995, and indicates that 360.8 previous flight hours were carried forward. The last entry was dated July 28, 1999. The majority of the flights recorded in the logbook were performed in N95PW. According to his logbook, he had accumulated a total of 809 hours, 482 of which were accomplished in N95PW. He had flown 42 hours within the past 90 days, and 1 hour within the past 30 days. His last FAR 61.56 flight review was accomplished on December 16, 1998, in N95PW.

The passenger was not a licensed pilot; however, he reportedly received flight training while serving in the U.S. Navy.

AIRCRAFT INFORMATION

N95PW (s/n 2976) was manufactured by the pilot in 1995. It was issued a Certificate of Aircraft Registration on April 18, 1995. The aircraft was issued a Special Airworthiness Certificate in the experimental category on May 20, 1995. It was equipped with a Lycoming O-320-D3G engine, rated at 160 horsepower, a Hartzell 2-blade, all metal, constant speed propeller, and fixed landing gear. The passenger's seat was equipped with a dual control stick. The aerobatic aircraft was rated for both 6 positive and 6 negative G's.

During the course of the investigation, the aircraft's maintenance records were not located. On the third to last page of the pilot's logbook under the remarks section, the pilot added the entry, "Tach 403.5 2/1/99 chgd oil & filter 8 qts. 15.50 firewall fwd on going condition inspection all ckd OK."

METEOROLOGICAL INFORMATION

At 1053, weather conditions at Durango, the closest weather reporting facility located 12 miles to the southwest of the accident site, were wind from 270 degrees at 3 knots, visibility 10 statute miles, scattered clouds at 7,500 feet and broken clouds at 9,000 feet, temperature 18 degrees C. (64 degrees F.), dew point 12 degrees C. (54 degrees F.), and an altimeter setting of 30.18 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

The aircraft was located (37 degrees 17.72 north latitude, 107 degrees 31.61 west longitude) at an elevation of approximately 7,400 feet above mean sea level (msl). The on-scene investigation disclosed that the aircraft struck several trees on a heading of 270 degrees, then impacted the ground at an approximate pitch down angle of 30 degrees. The airplane collided with the ground, then traveled another 40 feet forward before coming to rest.

All major components of the aircraft were accounted for. The engine's crankshaft was

separated from the crankshaft flange. Both propeller blades exhibited 90 degree chordwise striations and 'S' bending. The vertical speed indicator needle reflected a 3,000 feet per minute descent. The accelerometer indicated negative 2 g's. There was no pre or post-impact fire.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on September 2, 1999, by Montrose Memorial Hospital's Office of Medical Investigation. A toxicological protocol (#9900248001) on the pilot was performed by the FAA's Civil Aeromedical Institute (CAMI) in Oklahoma City, Oklahoma. Carbon monoxide and cyanide analysis was not performed. Ethanol and Acetaldehyde were detected in the kidney fluid (28 and 2 md/dL, mg/hg, respectively), Ethanol was detected in the muscle fluid (52 mg/dL, mg/hg), and N-Propanol was detected in the muscle fluid (6 mg/dL, mg/hg). According to CAMI's report, "the ethanol found in this case may potentially be from postmortem ethanol formation and not from the ingestion of alcohol."

ADDITIONAL INFORMATION

In addition to the Federal Aviation Administration, Textron Lycoming engines was a party to the investigation.

On September 2, 1999, the aircraft was released to the pilot's son. No parts were retained.

Pilot Information

Certificate:	Private	Age:	59, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Front
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:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	05/19/1999
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	809 hours (Total, all aircraft), 482 hours (Total, this make and model), 760 hours (Pilot In Command, all aircraft), 42 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Wroblewski	Registration:	N95PW
Model/Series:	RV-4 RV-4	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	2976
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	02/01/1999, Annual	Certified Max Gross Wt.:	1600 lbs
Time Since Last Inspection:	56 Hours	Engines:	1 Reciprocating
Airframe Total Time:	460 Hours	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-320-D3G
Registered Owner:	PHILLIP A. WROBLEWSKI	Rated Power:	160 hp
Operator:	PHILLIP A. WROBLEWSKI	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DRO, 6685 ft msl	Distance from Accident Site:	12 Nautical Miles
Observation Time:	1053 MDT	Direction from Accident Site:	230°
Lowest Cloud Condition:	Scattered / 7500 ft agl	Visibility	10 Miles
Lowest Ceiling:	Broken / 9000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	18° C / 12° C
Precipitation and Obscuration:			
Departure Point:	PAGOSA SPRINGS, CO (2V1)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1030 MDT	Type of Airspace:	Class G

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC): B. BEACH SCOTT **Report Date:** 12/05/2000

Additional Participating Persons: WILLIAM T GIERHART; SALT LAKE CITY, UT

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 pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at <http://dms.nts.gov/pubdms/>.

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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](#).