Aviation Investigation Final Report

Location:	Orcas Island, Washington	**Accident Number:**	SEA05LA068
Date & Time:	March 29, 2005, 12:25 Local	**Registration:**	N1711M
Aircraft:	Cessna T337E	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal, 1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Approximately 2 minutes after taking off the passenger noted that one of the engines began to run rough, followed by the second engine losing power after the pilot attempted to switch the fuel selector. The airplane subsequently impacted the water, blowing out the cabin windows. The passenger successfully exited the airplane, and then aided the pilot in getting out of the aircraft and up on to the wing. After about 30 minutes the airplane began to sink in about 200 feet of water, which prompted the passenger to begin swimming to shore, a distance of approximately one-half mile. The passenger attempted to get the pilot to swim to shore, which he did, but after a short period of time the pilot communicated to his passenger that he could not continue. The passenger was subsequently rescued; however, the pilot did not survive and was recovered a short time later. The day prior to the accident the pilot had picked up the airplane from a repair facility, flying three 20 mile legs between the repair facility, to his home, back to the repair facility, and then back to his home again, shuttling his family and their luggage. After arriving at his home base a family member queried him as to how he felt about the airplane, to which the pilot responded, "fine." The pilot did not report any anomalies with the airplane or engines prior to the flight which would have precluded normal operations. An attempt to locate and recover the airplane was not successful.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of power for undetermined reasons which resulted in a forced landing and impact with water.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
1. REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
2. TERRAIN CONDITION - WATER

Factual Information

HISTORY OF FLIGHT

On March 29, 2005, approximately 1225 Pacific standard time, a Cessna T337E airplane, N1711M, was destroyed during an in-flight collision with water following an emergency descent and landing approximately one-half mile south of Point Lawrence, Orcas Island, Washington. The certificated commercial pilot received fatal injuries and the sole passenger sustained minor injuries. Visual meteorological conditions prevailed for the 14 CFR Part 91 flight which was personal, and a flight plan was not filed. The flight departed the Blakely Island Airport (38WA), Blakely, Washington, at 1220, and its destination was the Bellingham International Airport (BLI), Bellingham, Washington.

In a telephone interview with the NTSB investigator-in-charge (IIC), and according the a statement submitted on June 24, 2005, (NTSB Form 6120.9), the passenger reported that the pilot performed the preflight by checking the fuel for water, inspected the entire airplane, and ran the engines up prior to departing. The passenger stated that about two minutes after taking off, "...one engine began to cut out, [the] pilot was switching [the] fuel selector while [the] second engine died. Impact was extreme and [the] windows were imploded. Water rushed in." The passenger further stated that after successfully exiting the airplane, he pulled the pilot out of his [the pilot's] window. The passenger reported that he and the pilot stood on the wing for about 30 minutes waiting for rescue craft to arrive; however, during this time the airplane began to sink in approximately 200 feet of water. The passenger related that as he swam away from the airplane he yelled at the pilot to swim toward the shoreline. The passenger stated that the pilot began swimming in his direction, but a short time later the pilot yelled back that he couldn't go any further. A boat responding to the accident site subsequently rescued the passenger and recovered the pilot.

A witness, who was working on Orcas Island, reported to the IIC of observing an airplane with its engine "missing," "cutting out," and "sputtering." The witness further reported that the airplane was heading north, then turned left, "...like it was trying to get back over land." The witness stated that he estimates the airplane was at least 1,000 feet above the ground, and that as the airplane continued its turn it was losing altitude and the engine was still sputtering. The witness reported that just before the airplane impacted the water he heard a "pop", but wasn't sure if it was the engine or the airplane hitting the water.

On May 2, 2005, Underwater Admiralty Services, Inc., of Kirkland, Washington, conducted a 6 hour search of the accident location with the intent of locating the aircraft for future recovery purposes. The results of the search proved negative, and no further search and/or recovery efforts are planned.

PERSONNEL INFORMATION

A review of FAA records revealed that the pilot was an instrument rated commercial pilot in airplane single-engine land and single-engine sea aircraft. The pilot held a second class medical certificate, dated January 13, 2004, with a limitation that he must have glasses available for near vision. On the application for the most recent medical certificate, the pilot reported his total flight time in all aircraft as 3,400 hours, with 80 hours accumulated in the previous 6 months.

AIRCRAFT INFORMATION

The airplane was a Cessna T337E, serial number 33701311, which is a centerline thrust airplane with the engines configured ahead and behind the wing, along the centerline of the fuselage. Examination of the maintenance logbooks revealed the airplane had accumulated a total of 2,786.6 hours of operating time as of March 25, 2005. The forward engine's operating time since maintenance overhaul (TSMOH) was 1,280.0 hours and the aft engine's TSMOH 1,456.4 hours, as of March 25, 2005. The most recent annual documented in the logbooks was completed on March 25, 2005.

METEOROLOGICAL INFORMATION

At 1253, the weather reporting facility at the Bellingham International Airport (BLI), located 12 nautical miles north-northeast of the accident site, reported wind 340 degrees at 5 knots, visibility 10 statute miles, scattered clouds at 400 feet, broken clouds at 1,500 feet, overcast clouds at 2,400 feet, temperature 7 degrees C, dew point 6 degrees C, and an altimeter setting of 29.65 inches of Mercury.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot at the Snohomish County Medical Examiner's office, Everett, Washington, on March 30, 2005.

A Forensic Toxicology Fatal Accident Report was prepared by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma.

The toxicology report indicated the following results:

* No Carbon Monoxide detected in Blood * No Cyanide detected in Blood * No Ethanol detected in Vitreous * 30.77 (ug/ml, ug/g) Salicylate detected in Urine

Salicylate is part of a group of chemical substances with anti-inflammatory properties, which includes aspirin, choline salicylate, magnesium salicylate, sodium salicylate and salsalate.

Metoprolol was detected in Blood and present in Urine. Metoprolol is a prescription drug used

in the treatment of high blood pressure.

ADDITIONAL DATA

A family member reported to the IIC that on June 18, 2004, the airplane had been involved in a gear up landing at Blakely Island. Repair of the airplane was conducted at the facilities of Chuckanut Aviation, located at the Burlington-Mount Vernon, Skagit Regional Airport (BVS), Burlington, Washington. On March 28, 2005, the day the airplane was scheduled to be picked up by the pilot, the aircraft was fueled with 55.2 gallons of aviation fuel. The pilot then flew two trips from BVS to Blakely Island, a distance of 20 nautical miles each way, to return family members and luggage to their home. After the pilot returned on the last leg to Blakely Island, the family member asked him how he felt about the airplane, to which the pilot replied "fine." The pilot said he wanted to do some touch-and-go takeoffs and landings, but cancelled the touch-and-goes when it started to rain. The family member then related that after the accident she spoke with the passenger on the accident flight, who told her that after the engine started to "sputter" the pilot said he was switching tanks, and then both engines quit. The family member stated that she thought the passenger also said the pilot attempted to restart the engines.

Pilot Information

Certificate:	Commercial	**Age:**	67,Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	January 1, 2004
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	3400 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N1711M
Model/Series:	T337E	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	33701311
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	March 1, 2005 Annual	**Certified Max Gross Wt.:**	4400 lbs
Time Since Last Inspection:	2 Hrs	**Engines:**	2 Reciprocating
Airframe Total Time:	2787 Hrs as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-360
Registered Owner:	Darrell L. Davey	**Rated Power:**	210 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	Bll,170 ft msl	**Distance from Accident Site:**	12 Nautical Miles
Observation Time:	12:53 Local	**Direction from Accident Site:**	216°
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Broken / 2100 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	220°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.65 inches Hg	**Temperature/Dew Point:**	10°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Blakely Island, WA (38WA)	**Type of Flight Plan Filed:**	None
Destination:	Bellingham, WA (BLI)	**Type of Clearance:**	None
Departure Time:	12:20 Local	**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal, 1 Minor	**Latitude, Longitude:**	48.65361,-122.745277

Administrative Information

Investigator In Charge (IIC):	Little, Thomas
Additional Participating Persons:	John W Davis; Federal Aviation Administration; Renton, WA
Original Publish Date:	January 31, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=61233