National Transportation Safety Board

FACTUAL REPORT AVIATION

NTSB ID: SEA05LA133	Aircraft Registration Number: N39TJ
Occurrence Date: 10/19/2004	Most Critical Injury: Fatal
Occurrence Type: Accident	Investigated By: NTSB

Location/Time

Nearest City/Place	State	Zip Code	Local Time	Time Zone	
Hyak	WA	98068	1200	PDT	

Airport Proximity: Off Airport/Airstrip	Distance From Landing Facility:	Direction From Airport:

Aircraft Information Summary

Aircraft Manufacturer	Model/Series	Type of Aircraft
Aero Vodochody Aero. Works	L-39C	Airplane

Sightseeing Flight: No Air Medical Transport Flight: No

Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On October 19, 2004, about 1200 Pacific daylight time, an Aero Vodochody L-39C, N39TJ, collided with mountainous terrain about seven miles east of Hyak, Washington, after radio and radar contact were lost at 1158. The 14 CFR Part 91 personal pleasure flight, which departed Boeing Field, Seattle, Washington, at 1146, was in an area of reported instrument meteorological conditions (IMC), and the pilot had activated his previously filed Instrument Flight Rules (IFR) flight plan. No ELT signal has been detected in the area where radar contact was lost, and the search for the aircraft was called off six days after the aircraft went missing (10/25/04). The jet aircraft, which had been issued an experimental-exhibition airworthiness certificate, was eventually located in the third week of June 2005, when some hikers came across the remains of the wreckage. About a week after they discovered the scene, the hikers realized that what they found may have been a previously undiscovered missing aircraft, so they reported their find to the FAA. Both occupants, a private pilot and his passenger, received fatal injuries, and the aircraft had been destroyed.

On the day of the accident, approximately nine minutes after takeoff, the aircraft was passed from Seattle Approach Control to Seattle Center. At that time, the pilot reported that he was passing 8,000 feet for 15,000 feet. About 70 seconds later, the center controller asked the pilot if he would prefer to climb to 15,000 feet or 17,000 feet, and the pilot responded with 17,000 feet. He was then cleared to 17,000 feet by the controller. About one minute later, the pilot was given a clearance to proceed direct to Lewiston, Idaho. At that time he gave no indication of having encountered any problem. Then about five seconds after being cleared to Lewiston, the pilot advised Center that he had a flight control problem, and about ten seconds after that, he stated that he had an in-flight emergency. About fifteen seconds after declaring the emergency, the pilot transmitted three times in a rapid excited voice that he was "out of control." The controller was not able to make any further radio contact with the aircraft.

A preliminary review of recorded radar tracking data (NTAP) indicates that the aircraft climbed to a mode C altitude of 17,100 feet, but was there for less than 15 seconds before starting to descend again. The aircraft was lost from radar just over one minute after it reached 17,100 feet (at 11:58:03), and at the time was approximately 15,900 feet. At the time it was lost from radar, its geographic location was 47 degrees, 21 minutes, 41.8 seconds North, and 121 degrees, 16 minutes, 38.7 seconds West. The aircraft wreckage was eventually found at 47 degrees, 22 minutes, 38.9 seconds North, and 121 degrees, 16 minutes, 7.76 seconds West.

The aircraft's initial impact with the terrain was through the trunks of two mature conifer trees, and a line drawn from those points of impact to the ground impact crater was approximately 70 degrees above the horizontal plane. The impact crater itself was about 10 feet wide and 14 feet long, and was approximately five feet deep at its center. Mounds of dirt had been pushed up around the perimeter of the crater by the force of the impact, and small pieces of wreckage were scattered up to one-eighth mile to each side of the crater, and up to one-half mile out along the longitudinal axis of the crater. Except for portions of the engine, landing gear, and vertical

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Narrative (Continued)

stabilizer, the entire aircraft had been torn into numerous small pieces, most of which were hard to identify due to the extent of the damage they suffered during the impact sequence. According to the recovery team, which worked for three days in the mountainous terrain cleaning up the scattered wreckage, there were over 1,000 separate pieces of the aircraft recovered.

Although four small pieces of what appeared to be flight control surfaces were identified, due to the extent of the damage, no determination as to the integrity of the flight controls, or the functionality of the flight control system could be made. An inspection of the engine revealed that the majority of the compressor blades had either been bent 45 degrees or more in a direction opposite that of normal engine rotation, or had been broken off at their base. Many of the turbine blade tips had been ground down where they had made rotational contact with the outer wall of the turbine section, and many of both the compressor and turbine blades showed extensive foreign object damage on their leading edges.

Although there was an AIRMET (Airman's Meteorological Information) in effect for the general area of the flight that called for the possibility of occasional moderate rime and mixed icing in clouds and precipitation from the freezing level up to flight level 200, the pilot did not make any mention to the controller of the accumulation of ice on the aircraft, and the last PIREP (Pilot Weather Report) mentioning icing in the area (trace amount) was over two hours prior to the accident.

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Landing Facility/Approach Information

Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
		Ft. MSL	NA		

Runway Surface Type:

Runway Surface Condition:

Type Instrument Approach: NONE

VFR Approach/Landing: None

Aircraft Information

Aircraft Manufacturer	Model/Series	Serial Number
Aero Vodochody Aero. Works	L-39C	812041

Airworthiness Certificate(s): Experimental (Special)

Landing Gear Type: Retractable - Tricycle

Homebuilt Aircraft?	Number of Seats:	Certified Max Gross Wt.	Number of Engines:
No	2	10360 LBS	1

Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:
Turbo Fan	Ivchenko	AI-25-TL	3792 LBS

- Aircraft Inspection Information

Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time
Conditional		Hours	1950 Hours

- Emergency Locator Transmitter (ELT) Information

ELT Installed?	ELT Operated?	ELT Aided in Locating Accident Site?
No	No	No

Owner/Operator Information

Registered Aircraft Owner	Street Address	City	State	Zip Code
Rocky L. Stewart		Livermore	CA	94551

Operator of Aircraft	Street Address	City	State	Zip Code
Same as Reg'd Aircraft Owner	Same as Reg'd Aircraft Owner			

Operator Does Business As:

Operator Designator Code:

- Type of U.S. Certificate(s) Held: None

Air Carrier Operating Certificate(s):

Operating Certificate:

Operator Certificate:

Regulation Flight Conducted Under: Part 91: General Aviation

Type of Flight Operation Conducted: Personal

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First Pilot Information

Name	City	State	Date of Birth	Age
On File	On File	On File		45

Sex: M | Seat Occupied: Front | Principal Profession: Non-Occupational Pilot | Certificate Number: On File

Certificate(s): Private

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: Helicopter

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? | Current Biennial Flight Review?

Medical Cert.: Class 3 | Medical Cert. Status: Without Waivers/Limitations | Date of Last Medical Exam: 01/2004

- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Mult-Engine	Night	Instrument Actual	Instrument Simulated	Rotorcraft	Glider	Lighter Than Air
Total Time	1800									
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used? Yes | Shoulder Harness Used? Yes | Toxicology Performed? No | Second Pilot? No

Flight Plan/Itinerary

Type of Flight Plan Filed: IFR

Departure Point	State	Airport Identifier	Departure Time	Time Zone
Seattle	WA	KBFI	1146	PDT

Destination	State	Airport Identifier
Lewiston	ID	KLWS

Type of Clearance: IFR

Type of Airspace:

Weather Information

Source of Briefing: Flight Service Station; Internet

Method of Briefing:

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
KELN	1153	PST	Ft. MSL	45 NM	110 Deg. Mag.

Sky/Lowest Cloud Condition: Ft. AGL

Condition of Light: Day

Lowest Ceiling: Broken 8500 Ft. AGL

Visibility: 10 SM

Altimeter: 29.76 "Hg

Temperature: 13 °C

Dew Point: 7 °C

Wind Direction: Variable

Density Altitude: Ft.

Wind Speed: 3

Gusts:

Weather Condtions at Accident Site: Instrument Conditions

Visibility (RVR): Ft.

Visibility (RVV) SM

Intensity of Precipitation:

Restrictions to Visibility: No Obscuration; No Precipitation

Type of Precipitation:

Accident Information

Aircraft Damage: Destroyed

Aircraft Fire: None

Aircraft Explosion None

Classification:

- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot	1				1
Second Pilot					
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants					
Other Crew					
Passengers	1				1
- TOTAL ABOARD -	2				2
Other Ground					
- GRAND TOTAL -	2				2

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Administrative Information

Investigator-In-Charge (IIC)

Orrin K. Anderson

Additional Persons Participating in This Accident/Incident Investigation:

Harvey Tharps
Seattle FSDO