National Transportation Safety Board
Aviation Accident Final Report

Location:	MEAD, WA	**Accident Number:**	SEA96FA029
Date & Time:	12/13/1995, 1816 PST	**Registration:**	N5GM
Aircraft:	Cessna 340A	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The pilot's departure plans were changed, when, instead of flying direct to his originally planned destination, he was asked to pick up a passenger at another airport prior to returning home. He departed for his alternative destination in dark night conditions, leveled off at his cruise altitude and impacted the side of a mountain in level flight about 25 miles from his departure point. Air Traffic Control vectored another aircraft to the vicinity after communications and radar contact were lost. The crew of that aircraft stated that instrument meteorological conditions prevailed at the time in the vicinity of the crash site.

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 terrain clearance in mountainous terrain. Factors contributing to the accident were: dark night conditions, mountainous terrain, and instrument meteorological conditions.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: CRUISE

Findings
1. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
2. (F) LIGHT CONDITION - DARK NIGHT
3. (F) WEATHER CONDITION - CLOUDS
4. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On December 13, 1995, at 1816 Pacific standard time, N5GM, a Cessna 340A, was destroyed when it collided with terrain at Mount Spokane, near Mead, Washington. The commercial pilot, who was the sole occupant of the aircraft, was fatally injured. The aircraft had departed Spokane International airport at 1806 and was operating under 14 CFR 91 at the time of the crash. The pilot was en route on the business flight to pick up his employer at Sandpoint, Idaho. No flight plan was filed for the flight. According to a pilot who was vectored to the vicinity of the accident about ten minutes after the occurrence, instrument meteorological conditions prevailed at the accident site. No ELT signal was reported, and no ELT was found at the accident site.

According to N-TAP radar data, the aircraft was maintaining a constant heading and 5600 feet altitude from 1811:03 until 1815:41, with no heading or altitude changes observed before impacting with the 5867 foot peak. An altimeter found at the site read 5520 feet.

The pilot was in contact with Air Traffic Control throughout his flight. Extracts of the transcript follow. The complete transcript is attached.

After departure from Spokane, the pilot established communications with the East Radar Controller at Spokane Approach Control, checking in at 1809:15. At 1809:30, the controller confirmed radar contact and asked the pilot to verify his level- off altitude. The pilot stated "...five thousand five hundred."

At 1810:34, the controller stated "...we show an IFR flight plan filed off Spokane going to Yakima. Do you still want to pick that up or do you want us to move it over to Sandpoint?" The pilot stated "I'd like to move that over to Sandpoint; we had a change of plans at the last minute."

Between 1810:34 and 1814:50, there were several communications exchanges between the pilot and radar controller concerning flight planning. At 1814:50, the controller asked the pilot to verify that his destination was Yakima. The pilot responded "That's affirmative; destination is Yakima."

There were no further communications from N5GM.

At 1817:21, the controller attempted to advise the pilot that he could pick up his IFR clearance off Sandpoint. There was no response. The controller had another aircraft attempt to establish communications.

METEOROLOGICAL INFORMATION

The crew of an aircraft vectored to the vicinity of the accident shortly after the accident stated that instrument meteorological conditions were encountered in the vicinity of Mount Spokane.

WRECKAGE AND IMPACT INFORMATION

The wreckage was found on the south face of Mount Spokane, on a slope estimated at 30 degrees upslope. The wreckage distribution path was approximately 800 feet from initial impact to the final pieces along the path. A multitude of small parts and pieces were scattered along the distribution path, which was estimated to be oriented about 30-40 degrees magnetic. The following description does not detail all pieces identified, but is limited to larger pieces. At

the initial impact point, four craters were found dimensionally separated by distances similar to the dimensions between the engines and wing tip tanks. Ninety-six paces from the craters, the empennage was found. The rudder was displaced to the right, and the right elevator trim tab was down. The left elevator surface was partially separated from the horizontal stabilizer. About eight feet of the aft fuselage and tailcone, which were crushed and folded, remained attached to the empennage. A road was immediately upslope of the empennage. Further upslope, at 148 paces, a propeller blade was found; at 180 paces, an aileron was found. At 200 paces, two propeller blades were found. At 265 paces, a propeller with three blades was found. A few paces further, and about fifty feet upslope of that propeller, an engine, SN290589-R (the right engine, according to log book entries), was found. At 275 paces, and about 30 paces downslope, an engine, SN 276759-R (the left engine according to log books) was found. The right wing was found at 300 paces, and the fuselage was found at 350 paces.

The fuselage exhibited torn skin at the aft pressure bulkhead, with the tailcone completely separated. The forward fuselage exhibited extensive crushing aft to the leading edge of the wing. The right wing center section, out to the nacelle, remained attached to the fuselage. The left wing, extensively crushed, remained attached to the inboard left wing center section, and the nacelle remained attached. The fuselage section was resting about 180 degrees from the wreckage distribution path.

All propeller blades exhibited extensive leading edge and tip damage, with chordwise scratching. Control cable continuity could not be established due to the separation of aircraft components, however control cable continuity was established from the separated cables to the elevator and rudder horns.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy of the pilot was performed by Drs. Lindholm and Venzon at the Forensic Institute, and Holy Family Hospital, Spokane, Washington, on December 14 and 15, 1995.

Toxicological testing was performed by the Washington State Toxicology Laboratory. Blood ethanol was negative, and carbon monoxide was under 5% saturation.

ADDITIONAL DATA/INFORMATION

The Safety Board did not assume possession of the wreckage. Subsequently, a release form was not required or signed. The wreckage was removed from the site and placed in storage at Discount Air Salvage, Deer Park, Washington.

Pilot Information

Certificate:	Commercial	**Age:**	52, Male
Airplane Rating(s):	Multi-engine Land; Single-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 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	
Occupational Pilot:		**Last Flight Review or Equivalent:**	
Flight Time:	3500 hours (Total, all aircraft), 132 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N5GM
Model/Series:	340A 340A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	340A0317
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	05/24/1995, Annual	**Certified Max Gross Wt.:**	5990 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Continental
ELT:		**Engine Model/Series:**	TSIO-520-NB
Registered Owner:	CDSI HOLDINGS CO, INC	**Rated Power:**	310 hp
Operator:	CDSI HOLDINGS CO, INC	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Night/Dark
Observation Facility, Elevation:	GEG, 2372 ft msl	**Distance from Accident Site:**	25 Nautical Miles
Observation Time:	1756 PST	**Direction from Accident Site:**	210°
Lowest Cloud Condition:	Scattered / 9000 ft agl	**Visibility**	10 Miles
Lowest Ceiling:	None / 0 ft agl	**Visibility (RVR):**	0 ft
Wind Speed/Gusts:	12 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	210°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	3°C / 1°C
Precipitation and Obscuration:			
Departure Point:	SPOKANE, WA (GEG)	**Type of Flight Plan Filed:**	None
Destination:	SANDPOINT, ID (S86)	**Type of Clearance:**	None
Departure Time:	1806 PST	**Type of Airspace:**	Class G

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	MICHAEL L STOCKHILL	**Report Date:**	01/17/1997
Additional Participating Persons:	WILLIAM TUBBS; SPOKANE, WA JOE HUTTERER; WICHITA, KS SCOTT BOYLE; DENVER, CO		
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.ntsb.gov/pubdms/.		