

Brief of Accident

Adopted 06/22/2009

LAX08MA007
File No. 25441 10/07/2007 Naches, WA Aircraft Reg No. N430A Time (Local): 19:59 PDT

Make/Model: Cessna / 208B
Engine Make/Model: Pratt & Whitney Canada / PT6-114A
Aircraft Damage: Destroyed
Number of Engines: 1
Operating Certificate(s): None
Type of Flight Operation: Personal
Reg. Flight Conducted Under: Part 91: General Aviation

	Fatal	Serious	Minor/None
Crew	1	0	0
Pass	9	0	0

Last Depart. Point: Star, ID
Destination: Shelton, WA
Airport Proximity: Off Airport/Airstrip

Condition of Light: Night
Weather Info Src: Weather Observation Facility
Basic Weather: Instrument Conditions
Lowest Ceiling: 12000 Ft. AGL, Broken
Visibility: 10.00 SM
Wind Dir/Speed: 300 / 014 Kts
Temperature (°C): 16
Precip/Obscuration: No Obscuration; No Precipitation

Pilot-in-Command Age: 46
Certificate(s)/Rating(s)
Commercial; Multi-engine Land; Single-engine Land

Flight Time (Hours)
Total All Aircraft: 2054
Last 90 Days: 191
Total Make/Model: 296
Total Instrument Time: 78

Instrument Ratings
Airplane

The pilot was returning a group of skydivers to their home base after a weekend of skydiving. He flew several jump flights, and then stopped early in the afternoon to prepare the airplane for the flight home. The flight was planned into an area of clouds, turbulence, and icing, which the pilot had researched. He delayed the departure until he decided that he could complete the planned flight under visual flight rules (VFR). The accident occurred at night with little illumination of the moon, and the airplane was in an area of layered clouds. A detailed analysis of the weather conditions revealed that the flight probably encountered broken to overcast layers both below and above its flight altitude. The satellite and sounding images suggested that it was possibly in an area of mountain wave conditions, which can enhance icing. The recorded radar data indicated that the pilot was likely maneuvering to go around, above, or below rain showers or clouds while attempting to maintain VFR. The airplane likely entered clouds during the last 3 minutes of flight, and possibly icing and turbulence. It was turning when it departed from controlled flight, and a performance study showed that the angle-of-attack at this point in the flight was increasing rapidly. The study determined that the departure from controlled flight was consistent with an aerodynamic stall. The unpressurized airplane was flying at over 14,000 feet mean sea level for more than 1 hour during the flight. It reached 15,000 feet just prior to the accident in sequential 360-degree turns while climbing and descending. Supplemental oxygen was not being used. At these altitudes, the pilot would be substantially impaired by hypoxia, but would have virtually no subjective symptoms, and would likely be unaware of his impairment. The pilot had logged over 2,000 hours of total flight time, with nearly 300 hours in this make and model of airplane. He was instrument-rated, but had only logged a total of 2 hours of actual instrument flight time. Company policy was to fly under visual flight rules only, and they had not flight-checked the pilot for instrument flight.

Brief of Accident (Continued)

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Updated at Jun 22 2009 3:18PM

Brief of Accident (Continued)

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Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: MANEUVERING

Findings

1. (F) WEATHER CONDITION - CLOUDS
 2. (F) WEATHER CONDITION - TURBULENCE
 3. (F) LIGHT CONDITION - DARK NIGHT
 4. (F) WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND
 5. (F) FLIGHT INTO KNOWN ADVERSE WEATHER - ATTEMPTED - PILOT IN COMMAND
 6. (F) VFR FLIGHT INTO IMC - INADVERTENT - PILOT IN COMMAND
-

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

7. (C) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
 8. (F) PHYSICAL IMPAIRMENT (ANOXIA/HYPOXIA) - PILOT IN COMMAND
 9. (C) STALL/SPIN - ENCOUNTERED - PILOT IN COMMAND
-

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

10. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.
The pilot's failure to maintain an adequate airspeed to avoid an aerodynamic stall while maneuvering. Contributing to the accident were the pilot's impaired physiological state due to hypoxia, the pilot's inadequate preflight weather evaluation, and his attempted flight into areas of known adverse weather. Also contributing were the pilot's inadvertent flight into instrument meteorological conditions that included clouds, turbulence, and dark night conditions.