

Brief of Accident

Adopted 11/10/2008

SEA08FA023
File No. 24422 11/08/2007 Las Vegas, NV Aircraft Reg No. N881CP Time (Local): 19:18 PST

Make/Model: Cessna / T182T
Engine Make/Model: Lycoming / TIO-540
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	2	0	0
Pass	0	0	0

Last Depart. Point: Las Vegas, NV
Destination: Rosamond, CA
Airport Proximity: Off Airport/Airstrip

Condition of Light: Night/Dark
Weather Info Src: Weather Observation Facility
Basic Weather: Visual Conditions
Lowest Ceiling: 18000 Ft. AGL, Broken
Visibility: 10.00 SM
Wind Dir/Speed: 240 / 003 Kts
Temperature (°C): 23
Precip/Obscuration: No Precipitation

Pilot-in-Command Age: 73

Flight Time (Hours)

Certificate(s)/Rating(s)
Airline Transport; Commercial; Flight Engineer; Multi-engine Land; Single-engine Land

Total All Aircraft: 25000
Last 90 Days: Unk/Nr
Total Make/Model: Unk/Nr
Total Instrument Time: Unk/Nr

Instrument Ratings
Airplane

*** Note: NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work without any travel, and used data obtained from various sources to prepare this aircraft accident report. ***

"THIS CASE WAS MODIFIED JANUARY 27, 2009."

The airplane collided with rising mountainous terrain during climb to cruise about 21 nm southwest of the departure airport. The accident occurred during dark night, visual meteorological conditions, about 13 minutes into the night cross-country flight. No lighted roads or round structures were present in the area to provide ground reference to terrain. 1% of the moon's disk was illuminated. Over the last 6 minutes of the flight, recorded radar data indicated the airplane's average groundspeed was 100 knots and its average rate of climb was 406 fpm; an average rate of climb of 600 fpm was required to clear terrain along the flight path. An examination of the accident site indicated that the airplane impacted rapidly rising terrain in a near level flight attitude before descending and coming to rest in a rock outcropping. The resultant high-energy impact forces, coupled with the extensive thermal damage, destroyed the airplane. A postaccident examination of the airframe's structure and engine failed to reveal any preimpact failures or malfunctions. The airplane was equipped with a Garmin G1000 Integrated Cockpit System, which incorporates a multifunction color display that is capable of displaying terrain elevation information when selected to the Terrain Proximity page. Due to the extensive impact and thermal damage that the component had sustained, it was not possible to determine if the pilot was using the display to receive topographic data during the airplane's ascent. Records indicate that the pilot had received G1000 training. The Pilot's Guide for the G1000 states: "CAUTION: Use of

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Terrain Proximity information for primary terrain avoidance is prohibited. The Terrain Proximity Map is intended only to enhance situational awareness. It is the pilot's responsibility to provide terrain avoidance at all times." The flight was departing on a VFR flight plan and was receiving VFR flight following services from the Las Vegas Terminal Radar Approach Control facility. Air traffic control radar data revealed that the airplane was continuously visible to the controller on his radar display from the departure airport until impact with mountainous terrain. The airplane's course remained constant as he approached and impacted the mountain during the dark nighttime flight. The air traffic controller did not issue a terrain-related safety alert, as required by a Federal Aviation Administration order, because he did not observe a conflict with terrain.

Updated at Jan 30 2009 12:36PM

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

Findings

1. (F) TERRAIN CONDITION - RISING
2. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
3. (F) LIGHT CONDITION - DARK NIGHT
4. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
5. (F) OTHER PSYCHOLOGICAL CONDITION - PILOT IN COMMAND
6. (F) PROCEDURES/DIRECTIVES - NOT FOLLOWED - ATC PERSONNEL(ARTCC)
7. (F) SAFETY ADVISORY - NOT ISSUED - ATC PERSONNEL(ARTCC)

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

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain an adequate terrain clearance/altitude during climb to cruise. Contributing to the accident were rising mountainous terrain, the dark nighttime lighting condition, the pilot's loss of situational awareness, and the Federal Aviation Administration controller's failure to issue a terrain-related safety alert.