



National Transportation Safety Board Aviation Accident Preliminary Report

Location:	Hermantown, MN	Accident Number:	ERA23FA001
Date & Time:	October 1, 2022, 23:17 Local	Registration:	N262TA
Aircraft:	Cessna 172S	Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

On October 1, 2022, at 2317 central daylight time, a Cessna 172S, N262TA, was substantially damaged when it was involved in an accident near Hermantown, Minnesota. The commercial pilot and two passengers sustained fatal injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to a witness, the pilot and two passengers, all friends, departed South St Paul Municipal Airport-Richard E Fleming Field (SGS), South St Paul, Minnesota, about 1015 and flew about 130 nautical miles to Duluth International Airport (DLH), Duluth, Minnesota. Shortly after arrival at DLH, the group attended a wedding and reception. About 12 hours after arriving, the pilot and passengers arrived back at the airplane. According to the fixed-base operator, no fueling or maintenance were requested.

The pilot requested an instrument flight rules (IFR) clearance from the air traffic controller and was subsequently cleared to SGS via direct, with a climb to 6,000 ft on departure and was issued a departure frequency and beacon code; the frequency was read back incorrectly by the pilot and not corrected by the air traffic controller.

The pilot reported that he was ready for taxi and the controller instructed the pilot to taxi to the runway. The controller reported that there was about 1/2-mile visibility and subsequently advised cloud bases were reported at 250 ft agl. The pilot reported holding short of runway 9 and ready for takeoff. The controller cleared the airplane for takeoff with a right turn direct to SGS on departure. The controller also reported that the winds were from 090° at 14 knots gusting to 18 knots, and the runway visual range was greater than 6,000 ft, which the pilot acknowledged.

Preliminary Automatic Dependent Surveillance–Broadcast (ADS–B) data indicated the flight departed DLH runway 09 at 2312, then turned on a southerly track while climbing to about 1,750 ft mean sea level (msl) about 1 mile south of the departure runway. The airplane entered a tight teardrop turn to the left while climbing through 2,000 ft msl, then continued the turn 360° until it was on a track of about 270° at 2,800 ft msl, then began a descent (see figure 1.)



Figure 1. ADS-B data depicting accident flight track in profile view.

The controller attempted to contact the pilot on departure frequency with no response. He then transmitted on the tower frequency and instructed the pilot to contact departure. The pilot responded by saying “contacting departure two tango alpha.” Several seconds later, while the airplane continued to descend in a left turn with increasing ground speed, the controller informed the pilot that he observed the airplane descending and asked him to confirm that he was climbing. There was no response and no further communication from the pilot.

Preliminary weather information was obtained from DLH, which was located about 1 mile north of the accident site at an elevation of 1,428 ft. At 2255, the recorded weather at DLH included wind from 080° magnetic at 10 knots gusting to 19 knots, 5 statute miles visibility, mist, ceiling overcast at 200 ft agl, temperature 9° C, dew point temperature 8° C, and altimeter 30.38 inches of mercury (inHg).

The airplane impacted the front roof of a two-story house at an elevation of 1,400 ft, and on a track of about 210°. It passed through two upstairs bedrooms, and then struck terrain before coming to rest inverted between a vehicle and a detached garage. There was no postcrash fire. The wreckage path was oriented on a magnetic heading of 202° and was about 100 ft in length. All major components of the airplane were located within the area.

The left wing was impact separated from the fuselage and was discovered on the front yard of the house. The empennage was separated from the fuselage at the leading edge of the horizontal stabilizer and was discovered against the front door of the detached garage. The remaining fuselage, cockpit and right wing were inverted and wedged between the garage and a vehicle. No visible fuel was present at the scene and there was no associated fuel blight discovered on the trees or surrounding grass; however, fire rescue personnel reported a strong fuel odor during their recovery operations.

Control continuity was confirmed from all flight control surfaces through breaks in the flight control cables that were consistent with tensile overload.

The engine was impact separated from the firewall and remained upright adjacent to the fuselage. It was relatively intact and there was no damage to the aft accessory section of the engine. The propeller flange was sheared off at the crankshaft and the damage was consistent with rotation of the crankshaft at the time of impact. The propeller was found in the wreckage next to the engine and exhibited chordwise scraping and leading-edge gouges. Both propeller blades were bent aft mid span and the propeller spinner was crushed and twisted.

The engine spark plugs were removed and examined. They had minimal wear when compared to the Champion Check-A-Plug chart and did not display any evidence of carbon or lead fouling. Both left and right magnetos were intact. Both units were operated manually with a drill socket and all posts produced a spark with no anomalous behavior noted. Residual fuel was discovered in the fuel pump and fuel odor was noticed in the flow divider.

The engine was rotated via the accessory section. Thumb compression and suction was attained on all cylinders and crankshaft continuity was confirmed. All valves, pushrods and springs operated normally. The crankshaft rotation was smooth, with no noticeable abnormal noise or friction noted.

The wreckage was retained for further examination.

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N262TA
Model/Series:	172S	Aircraft Category:	Airplane
Amateur Built:			
Operator:		Operating Certificate(s) Held:	None
Operator Designator Code:			

Meteorological Information and Flight Plan

Conditions at Accident Site:	IMC	Condition of Light:	NightDark
Observation Facility, Elevation:	DLH,1417 ft msl	Observation Time:	22:55 Local
Distance from Accident Site:	2 Nautical Miles	Temperature/Dew Point:	9°C /8°C
Lowest Cloud Condition:		Wind Speed/Gusts, Direction:	10 knots / 19 knots, 80°
Lowest Ceiling:	Overcast / 200 ft AGL	Visibility:	5 miles
Altimeter Setting:	30.38 inches Hg	Type of Flight Plan Filed:	IFR
Departure Point:	Duluth, MN (DLH)	Destination:	South Saint Paul, MN (SGS)

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	2 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	46.821679,-92.222941

Administrative Information

Investigator In Charge (IIC):	Mccarter, Lawrence
Additional Participating Persons:	Kurt Gibson; Textron; Wichita , KS Greg Thurston; FAA FSDO; Minneapolis, MN David Harsanyi; Lycoming; Mobile, AL
Note:	