



MEMORANDUM FOR RECORD

Stephen Stein
Air Safety Investigator
National Transportation Safety Board
Office of Aviation Safety – Western Pacific Region

NTSB Accident Number: WPR18LA002
Aircraft Registration & Make/Model: N5311H; Cessna 172
Accident Location: Tonopah, Nevada
Accident Date: October 2, 2017

Note: The following interviews were documented by the Investigator –In-Charge (IIC), Stephen Stein.

Interview #1 Summary

John Waugh
Federal Aviation Administration

Interview date and time: October 4, 2017; 1428 PT

Mr. Waugh reported that the debris field showed 200 feet of main landing gear marks and then a nose landing gear marking where the airplane came to rest.



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Interview #1 Summary

Kevin Cole
Accident Pilot

Interview date and time: October 2, 2017; 1500 PT

Mr. Cole stated that he did not sustain any injuries when he attempted to complete a soft field landing on a dry lake bed. At the time of the accident the pilot was on a long cross country flight from Hoodville, Oregon (4S2) to Prescott, Arizona for a college alumni event. He elected to fly a C172 from the flightline at the flight school he worked to accumulate time and satisfy a requirement for his Commercial flight certificate. He was flying with a group of three other airplane who stopped in Winnemucca, Nevada. On the day of the accident, he was flying about 1,000 feet above ground level when the engine started to “sputter” and “cough,” which was immediately followed by a decrease of about 800 rpm, to 1,500 rpm. The pilot subsequently entered a descent, verified the fuel selector was on BOTH, both magnetos were ON, and cycled the throttle, but could not achieve an rpm greater than 1,500. He began a precautionary landing with about 30 gallons of fuel onboard and full flaps. When he reached touchdown, he pulled the nose back for as long as he could, but when the nose landing gear made contact with the ground, the airplane nosed over and came to rest inverted.

Interview #2 Summary

Kevin Cole
Accident Pilot

Interview date and time: October 4, 2017; 0827 PT

Mr. Cole reported that L-Bird Corporation owns the airplane and TacAero operates it as a rental aircraft in its rental and instruction fleet. TacAero owns a total of about 20 airplanes comprised of Cessna 150s, 172s, Carbon Cubs, 185s, a Vans RV-12, Super Cubs, and a Waco. He guessed that a carbon ball probably got caught in the spark plug and caused the partial loss of power as he personally cleans many carbon balls as the students that fly the airplanes don't lean the mixture out during training flights. He added that he has seen performance issues in the past when customers come into his shop (he is the Director of Maintenance for TacAero), and complain that the airplane doesn't run right. Mr. Cole stated that he completed a magneto check in Winnemucca and both magnetos were within 75 rpm of each other. He subsequently leaned the mixture out and ran the engine up to 1,800 rpm. He didn't observe anything abnormal during the engine run-up.

Interview #3 Summary

Kevin Cole
Accident Pilot

Interview date and time: January 9, 2018; 1303 MST

The accident pilot described the loss of rpm as a slow decrease from about 2,300 rpm to about 1,800 rpm. He had been flying at various altitude during the accident flight and at the time of the loss of rpm he had just came out of a descent from 10,500 ft mean sea level and coming into the valley. The rpm did not fluctuate any further after the initial loss of rpm. He attempted to adjust the mixture one full rotation lean, but never attempt to apply full RICH mixture as he thought it might have been over peak. He kept the throttle fully advanced throughout the precautionary landing. The pilot did not check the magnetos or turn the fuel pump on, but he did verify the fuel selector was in the BOTH position. Fuel flow indicated about 2-3 gallons per hour.

He further added that he normally flies the airplane lean-of-peak. The pilot leaned the mixture out on the ground on the ground to check the magnetos and left it in the same position for takeoff and climbout. He subsequently leaned the mixture out to lean-of-peak exhaust gas temperature when he reached cruise altitude and then again at 10,500 ft msl, but brought it back in about 150° after the engine began to hesitate. He did not touch the mixture until after he lost rpm.

The pilot reported that he normally flies his Cessna 175A frequently and that most of his accrued flight time is split between that airplane and a supercub. The first 40 hours of his flight experienced were accrued in a Cessna 172, which was not an SP model. He normally flies his Cessna 175A lean-of-peak.

He never felt the accident airplane was unable to maintain altitude; however, he was concerned the airplane would not be able to cross an upcoming mountain range. He didn't throw the mixture control in all the way because he was worried about the engine being operated in too rich of a condition and when he enriched the mixture one full rotation he did not observe any difference in engine rpm.

Interview #4 Summary

Kevin Cole
Accident Pilot

Interview date and time: January 10, 2018; 0825 MST

The pilot reported that he could have descended as much as 3,000 ft right before the rpm loss occurred as he went from 10,500 ft msl to 6,000 to 8,000 ft. msl.



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Interview #1 Summary

Mike Caldera
Representative, Lycoming Engines

Interview date and time: October January 9, 2018; 1443 MT

Mr. Caldera reported that he did not observe any bridging between the ground electrode and post on the spark plugs of the cylinder no. 3 bottom spark plug or the cylinder no. 2 bottom spark plug. The contamination to the cylinder no. 3 bottom spark plug looked like lead deposits, but the plug looked like it was functioning. He further added that its important to enrichen the fuel/air mixture control as you descend so the engine doesn't suffer leaning misfires.