



NATIONAL TRANSPORTATION SAFETY BOARD

Central Region

MEMORANDUM FOR RECORD

SUBJECT: CEN20LA321 Accident Details

On August 1, 2020, about 0130 central daylight time, a Piper PA-28R-201 airplane, N9765C, was substantially damaged when it was involved in an accident at Seiling Airport (1S4), Seiling, Oklahoma. The pilot and three passengers were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The responding Federal Aviation Administration (FAA) inspector reported the following information in a series of communications with the NTSB:

Examination of the airplane revealed about 25 to 30 gallons of fuel onboard. Airplane was loaded to almost maximum gross weight. Pilot had the airplane configured with the flaps retracted and intended to takeoff from a 2,400+ ft runway with 3 passengers onboard. The inspector stated that all connections were secured properly, and the top plugs were pulled and were all clean. The fuel was sumped and it was clean. The engine (crankshaft) was unable to rotate through because the propeller bent and damaged. There were no signs of oil leaks and 7 quarts remained in engine. The pilot mentioned he thought the engine wasn't performing the way it should have. Evidence from the postaccident examination and the engine monitor data did not reveal any anomalies. It appears that the pilot didn't realize what his actual performance numbers were with zero flaps. The actual outside air temperature was 17°C which was higher than the 14°C reported by the pilot, which would have an effect on the performance numbers. The pilot also stated there was a 5-knot headwind that he figured in his performance calculations; however, there was no headwind and there was likely a slight quartering tailwind or crosswind (from 310°) based on the nearest recorded weather. These factors would have increased the takeoff roll. Additional discussions with the pilot revealed that he had only operated from longer runways; all his practice with short fields was simulated on lengthy runways. He had never operated that airplane or any airplane out of a short runway on a takeoff where he would use over 75% of the field before liftoff. He should have executed a short field takeoff with flaps extended. Also, his performance calculations were underestimated for the actual conditions. The pilot made multiple mentions that he was focused on the amount of runway remaining. It was not normal for him to see all that

runway disappear and so little runway remain. The inspector stated that the reported “vibration” the pilot experienced was due to the extended ground roll on a less than perfect runway. The investigation did not find a source for the reported vibration.

The airplane was equipped with an Electronics International Inc. MVP-50P engine monitor, which recorded engine and GPS data. A review of the recorded engine data by the NTSB revealed the following:

The takeoff roll began about 117 ft from the takeoff end of the runway. The distance from the beginning of the takeoff roll until there was a reduction in RPM and fuel flow was 1,760 ft. The distance from the reduction in RPM and fuel flow until the first reduction in GPS speed was another 242 ft. At this point the airplane was 304 ft from the end of the runway. The GPS speed reached 72 knots. This indicated that the pilot aborted the takeoff after about 2,014 ft of ground roll. The pilot reported that he observed 60 knots on the airspeed indicator about the same time he felt the vibration then aborted the takeoff. The data showed that the airplane continued down the runway 668 ft and about 5 seconds until the aborted takeoff was initiated. The engine monitor data did not reveal any anomalies that would have precluded normal operation did not show even a slight reduction in RPM.

Based on the weather conditions from the nearest weather observation station, there would have been about a 3 knots tailwind.

Runway number	17 ▾
Wind direction	310 deg ▾
Wind speed	4 knots ▾
Wind components:	
Crosswind component	2.57 knots ▾
Tailwind component	3.064 knots ▾

The NTSB completed a performance calculation for the accident takeoff and determined that the distance required to complete the ground roll was about 2,100 ft. The distance required to complete the ground roll and clear a 50 ft obstacle was about 2,800 ft.

The liftoff speed would have been 69-70 KIAS. The GPS speed reached 72 knots before the takeoff was aborted, close to the required 69-70 KIAS depending on the conditions at the accident site.

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NTSB - CEN