



KEYW Hard Landing
N55FN Lear 35a
12/15/2018

The aircraft entered its first approach at approximately 1510Z. Weather report was north winds at 11 knots, light rain and good visibility. The First Officer, W. Rucks Winklejohn, was pilot flying (PF) and Captain Jarred Lundy was pilot monitoring (PM). At MDA and MAP to runway 9 they executed a missed approach at 1517Z. They did get the runway in sight, but a normal landing was not possible. During the missed approach they experienced some turbulence south of the field. While being vectored ATC advised the wind had shifted and was favoring runway 27. The crew agreed and accepted vectors for that runway and Captain Lundy became PF. During the approach another weather report was issued that the winds had shifted to 330 at 13 gusting to 19 knots. These conditions are considered normal and well within the limits of the aircraft and the skill of the crew. Descending to the MDA the crew visually acquired the runway and descended to the touchdown zone. The aircraft was flown at the correct airspeed for conditions and they reported no fluctuations in airspeed or vertical descent rate. At 1532Z, one minute before landing, Flightware shows the aircraft at 140kts. This is the correct speed given the conditions. Both pilots reported a normal reduction in power and initiation of the landing flare. In the Lear this begins at approximately 20 feet. Both crewmembers noted that even with an increase in landing flare rotation the descent rate could not be arrested, and the aircraft landed hard at 1533Z. The aircraft taxied off the runway normally but was listing. The crew assumed a blown tire and asked to taxi to a ramp to inspect. It was then they realized the aircraft was damaged. There were no injuries or damage to airport property. Both flight crewmembers were drug tested as soon as practical.

We reviewed the flight crews written report, interviewed them and analyzed the weather at the time of the incident. Another weather report was issued approximately 5 minutes after the crew had landed indicated yet another wind shift and a slightly higher gust factor. From 6 knots as previously reported to 10 knots. Three reports in 30 minutes indicates rapidly changing conditions but the reports were typical of this climate and well within the limits of a normal operation. The experienced crew flew the aircraft by the book in familiar conditions.

It is our opinion that this flight crew experienced an un-recoverable low-level wind-shear operating in otherwise normal meteorological conditions. Contributing factors were the aircraft was in a low energy state at low altitude in a position committed to landing.

