

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

June 4, 2020

Engine Data Monitor

Factual Report
By Joshua Lindberg

1. EVENT SUMMARY

Location: Ranger, Texas
Date: October 6, 2019
Aircraft: Beech B36TC
Registration: N36LS
Operator: Private
NTSB Number: CEN20LA004

2. DETAILS OF INVESTIGATION

Preliminary report information: On October 6, 2019, about 0835 central daylight time, a Beechcraft B36TC Bonanza, N36LS, impacted trees after an aborted takeoff from Ranger Municipal Airport (F23), Ranger, Texas. The airplane was registered to Aircraft Certification Flight Test Support LLC and operated by the pilot as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot reported that during the soft-field takeoff roll he advanced the throttle, confirmed normal power indications on the gauges, and the power continued to increase in a normal manner. As the airplane continued to accelerate, he noted about 50 knots indicated airspeed and increasing, until it reached 70 knots when he continued to apply back pressure on the yoke and rotated for the soft-field takeoff. The airplane lifted off with a slightly higher than a normal pitch attitude, and the pilot flew the airplane over the runway while in ground effect. After flying in ground effect for a short period, he noticed the airplane stopped accelerating and felt "mushy" but he noted that the engine was still producing some amount of power. He "did not hear or feel any pops, bangs, vibrations, smells, or otherwise that would have triggered [him] to believe that it was an immediate total engine power failure." Next the airspeed indicator showed about 70 knots and was slowly decreasing. The pilot identified a field to the left of the runway and banked left about 15 to 20° to make a forced landing in the field. The pilot stated that he heard the stall warning horn activate, then heard the underside of the airplane contact some small trees. The airplane landed hard in the field and came to rest upright. The landing gear remained extended during the entire sequence. A JPI EDM900 was recovered from the airplane and downloaded.

Device Manufacturer/Model: J.P. Instruments, Inc. EDM 900
Serial Number: 02942
Part Number: 790000-A-122
Mfg date: 11/8/2012

2.1. Data Recovery

The device was undamaged and sent to the specialist for download. The device was downloaded normally using the manufacturer's software. Figure 1 shows the front of the device as received.



Figure 1 – Photo of undamaged EDM unit.

2.2. Data Description

The device was powered on and the internal time was not revealed during the startup sequence, so the internal time could not be compared to the current time.

The data extracted included 229 sessions from May 17, 2016 through October 6, 2019. There was one distinct session on October 6, 2019, consistent with the accident flight, which was recorded from 12:56:38 to 13:02:50 (could not be corrected for actual time). The previous session on October 4, 2019, was included in this report and the tabular data.

2.3. Tabular Data

The accident tabular data are included as Attachment 1 and the October 4 session tabular data are included in Attachment 3. These attachments are provided in electronic comma-delimited (.CSV) format. The tabular data displays the uncorrected time.