

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division

Washington, D.C. 20594

November 6, 2015

Engine Data Monitor (EDM)

Specialist's Factual Report

By Doug Mansell

1. EVENT SUMMARY

Location: Siler City, North Carolina
Date: June 2, 2015
Aircraft: Hawker Beechcraft A36
Registration: N985K
Operator: Private
NTSB Number: ERA15LA231

2. GROUP

A group was not convened.

3. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received the following device:

Device Manufacturer/Model:	JPI EDM-700
Serial Number:	30801

3.1. Device Description

The J. P. Instruments EDM-700 is a panel-mounted gauge used to monitor and record parameters related to engine operation. Parameters are recorded to non-volatile memory¹, at a rate selectable by the operator. Data recording begins when Exhaust Gas Temperature (EGT) is greater than 500 degrees Fahrenheit. Data can be downloaded using software provided by J.P. Instruments.

¹ Non-volatile memory is semiconductor memory that does not require external power for data retention.

3.2. Device Condition

The device arrived at the Vehicle Recorder Division laboratory with obvious physical damage; the exterior case was significantly deformed (see Figure 1). A cursory visual inspection of the circuitry inside revealed no obvious signs of damage, so the device was powered up and data was extracted normally. Figure 2 shows the device with the exterior case removed, ready for data download.

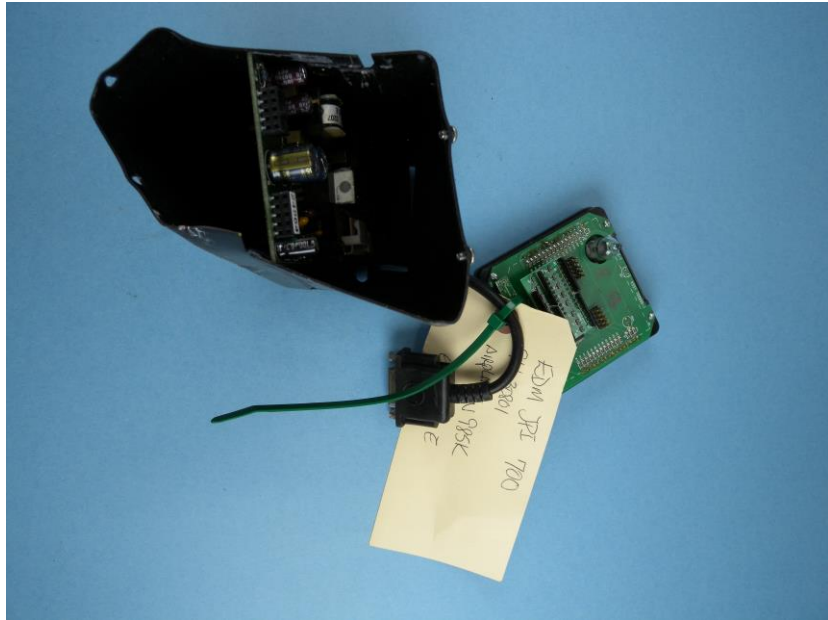


Figure 1. Photo of EDM-700, as received

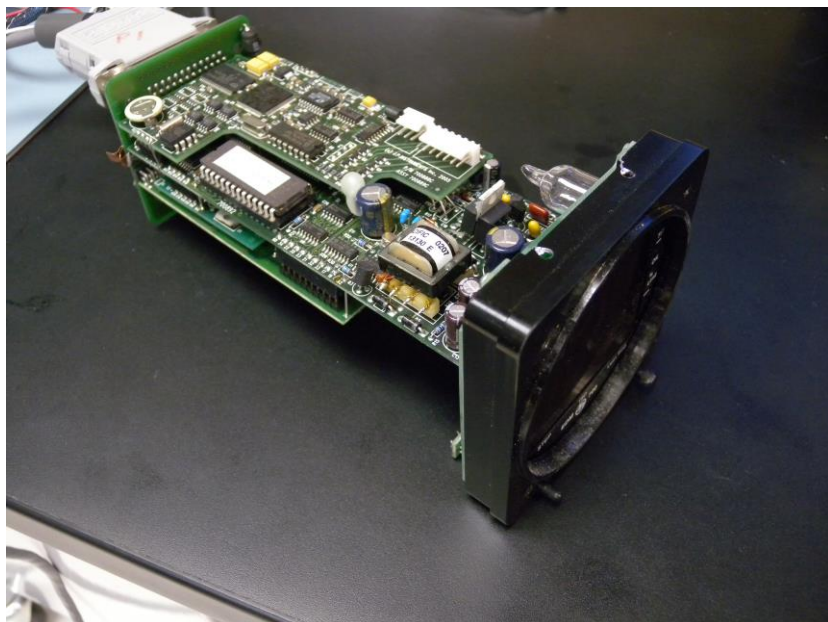


Figure 2. Photo of EDM-700, ready for data download

3.3. Data Description

The device contained data from 128 recording sessions between August 28, 2013, and May 28, 2015, for a cumulative 175 hours 16 minutes 9 seconds. The device was set to record data every 504 seconds; the manufacturer default setting records data every 6 seconds. Date and time is set by the user, and is not slaved to an external time source; the set time was approximately 14 minutes ahead of Coordinated Universal Time (UTC).

The accident occurred on June 2, 2015. There were no data pertinent to the accident recorded on the device. Data from the accident flight would have been recorded if the device was powered while the engine was running. Airplane flight logs were not reviewed to correlate the EDM-700 data with flights prior to the accident.