

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

February 12, 2018

Cockpit Display

Specialist's Factual Report
By Sean Payne

1. EVENT SUMMARY

Location: Mt Vernon, Indiana
Date: December 2, 2016
Aircraft: PEGAZAIR P 100
Registration: N129LZ
Operator: Private
NTSB Number: CEN17FA046

2. GROUP

A group was not convened.

3. DETAILS OF INVESTIGATION

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

Device Manufacturer/Model:	MGL EFIS (Unknown Model)
Serial Number:	Unknown

Device Manufacturer/Model:	Transcend SD¹ Card – 1 Gigabyte
Serial Number:	Unknown

3.1. Device Description

The MGL Avionics EFIS line of cockpit displays are marketed for non type-certificated aircraft. The unit has a number of built in sensors that facilitate navigational and attitude information. It can also display engine and fuel information if an appropriate engine monitoring accessories. The unit contains an attitude and heading reference system (AHARS) to provide air data, attitude, and heading information to the display.

¹ SD – Secure Digital - A format for removeable non-volatile memory.

Flight data logging capability is provided by an externally removable SD card. In general, for most MGL units, recording begins as soon as a flight is active, and stores approximately the last hour of flight data at a rate of 1 Hz.

3.2. Device Condition

Upon arrival at the Vehicle Recorder Laboratory, an examination revealed the unit had sustained significant impact damage. The device exhibited crush damage and was disassembled. The device is shown in its disassembled state in figure 1.

Additionally, an SD card associated with the device was examined. The SD card's external plastic casing was removed. The internal silicon non-volatile memory² (NVM) chip was cracked in three pieces.

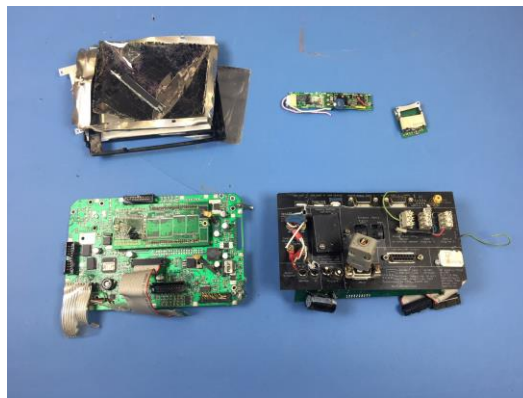


Figure 1. Photo of damaged unit



Figure 2. Photo of damaged SD card.

² Non-volatile memory is semiconductor memory that does not require external power for data retention.

3.3. Data Description

This device is capable of storing data in NVM via the externally removable memory SD card. According to the manufacturer, units from this era (2007), are not capable of recording data via any other method. The extent of the damage to the SD card precluded all recovery procedures. Therefore, no data pertinent to the event were recovered.