

# NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division  
Washington, D.C. 20594

March 26, 2020

## Flight Display Factual Report

Specialist's Factual Report  
By Nick Swann

### 1. EVENT SUMMARY

Location: Plain City, Ohio  
Date: March 17, 2019  
Aircraft: Cessna 421B  
Registration: N424TW  
Operator: Phoenix Test Flight, LLC  
NTSB Number: CEN19FA100

On March 17, 2019, about 1745 eastern daylight time, a Cessna 421B airplane, N424TW impacted terrain near Plain City, Ohio. The commercial rated pilot, sole occupant, was fatally injured and the airplane was destroyed. The airplane was registered to Classic Solutions, Inc. and operated by Phoenix Test Flight, LLC, as a 14 *Code of Federal Regulations* Part 91 flight. The flight departed Dayton (KDAY), Dayton, Ohio about 1720, en route to Delaware Municipal Airport (KDLZ) Delaware, Ohio.

### 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:	<b>Aspen EFD1000 Pro</b>
Serial Number:	<b>25983</b>

#### 3.1. Device Description

The Aspen EFD1000 Pro is a Primary Flight Display (PFD). Working as a full Electronic Flight Instrument System, the EFD1000 can provide the pilot with hazard awareness and synthetic vision. The Aspen displays, however, do not record any historical data. Certain software versions running on the Aspen EFD1000 Pro were also subject to a Special Airworthiness Information Bulletin (SAIB SW-18-31) and an Airworthiness Directive (AD 2018-SW-100). The SAIB and AD were prompted by reports of the devices repetitively

resetting and required disabling the Automatic Dependent Surveillance-Broadcast (ADS-B) In function.

### 3.2. Device Condition

Upon arrival at the Vehicle Recorder Laboratory, an examination revealed the unit had sustained impact damage as shown in Figure 1.



Figure 1. Photo of damage to EFD 1000

### 3.3. Data Description

This device is incapable of storing historical data. There are no non-volatile memory (NVM) chips on board to record flight parameters. As such, there is no data available from this device pertaining to the accident flight. Additionally, it is unclear which version of the Aspen software the devices were operating with and therefore it cannot be determined if the devices were impacted by issues related to the SAIB or AD.