

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: Sioux Falls, South Dakota
Date: December 25, 2018
Aircraft: Hawker Beechcraft 58
Registration: N6745V
Operator: Private
NTSB Number: CEN19LA049

On December 25, 2018, about 1703 central standard time, a Beech 58P, N6745V, was destroyed when it impacted structures and terrain 3 miles south of the Sioux Falls Regional Airport (FSD), Sioux Falls, South Dakota. A post impact fire ensued. The pilot and passenger were fatally injured. The airplane was owned and operated by a private individual under the provisions of Title 14 *Code of Federal Regulations* Part 91 as a personal flight. Instrument meteorological conditions prevailed and an instrument flight rules (IFR) flight plan was filed for the flight. The flight originated from Gerald R. Ford International Airport (GRR), Grand Rapids, Michigan, about 1407 and was en route to Marv Skie-Lincoln County Airport (Y14), Tea, South Dakota.

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:	Aspen EFD1000 Pro
Serial Number:	11952

Device Manufacturer/Model:	Aspen EFD500
Serial Number:	3474

3.1. Aspen EFD1000 Pro and EFD500 Device Description

The Aspen EFD1000 Pro and EFD500 are a PFD/MFD combination. Working together as a full Electronic Flight Instrument System, the EFD1000 and EFD500 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 and EFD500 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 both devices had sustained extensive fire and impact damage. The condition of the EFD1000 Pro is shown in Figure 1 and the condition of the EFD500 is shown in Figure 2.



Figure 1. Photo of damaged EFD1000 Pro



Figure 2. Photo of damaged EFD500

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.