

# NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division  
Washington, D.C. 20594

May 11, 2018

## Electronic Device

Specialist's Factual Report  
By Ben Hsu

### 1. EVENT

Location: Fredericksburg, Virginia  
Date: August 12, 2016  
Aircraft/ID: Beechcraft 55 / N128VB  
Operator: Private  
NTSB Number: ERA16FA288

### 2. EVENT SUMMARY

On August 12, 2016, at 1222 eastern daylight time, a Beech 95-B55, N128VB, was substantially damaged when it collided with trees and terrain during an aborted landing attempt at Shannon Airport (EZF), Fredericksburg, Virginia. The private pilot/owner, commercial pilot, and four passengers were fatally injured. The airplane was registered to Ross and Company PLL and operated under the provisions of 14 *Code of Federal Regulations* Part 91 as a personal flight. Visual meteorological conditions prevailed near the accident site at the time of the accident, and no flight plan was filed for the flight, which originated from Shelbyville Municipal Airport (GEX), Shelbyville, Indiana, about 1015.

### 3. DETAILS OF DEVICE INVESTIGATION

The NTSB's Vehicle Recorder Division received the following devices:

Device: Appareo Stratus 2S  
Device Serial Number: 230457

Figure 1 shows the Appareo Stratus 2S device as it arrived in the laboratory. The device's internal flash memory was removed and imaged using laboratory hardware. Data was converted to engineering units using laboratory software.

#### 3.1. Appareo Stratus 2S Detailed Description

The Appareo Stratus 2S is a battery-operated ADS-B receiver with Global Positioning System (GPS) capability designed to interface with an iPad, iPhone, or iPod Touch running the ForeFlight Mobile application via Wi-Fi. The Stratus uses ADS-B to provide access to NEXRAD radar, METARs, TAFs, NOTAMs and other FAA products via the ForeFlight application installed on a mobile device.

Data downloaded from the device included the accident flight. In consultation with the NTSB Investigator-In-Charge (IIC), only data from within a 20-mile radius of the accident location was examined and included in this report. Table 1 is a list of parameters recorded. Time is presented as seconds elapsed from the beginning of the dataset.

Figure 2 shows a plot of the parametric data recorded by the device. Figures 3 and 4 show a Google Earth overlay of the recorded GPS data from the entire dataset and a detail view of the end of the flight, respectively.

Attachment 1 is the full dataset described in electronic comma-separated value (CSV) format.

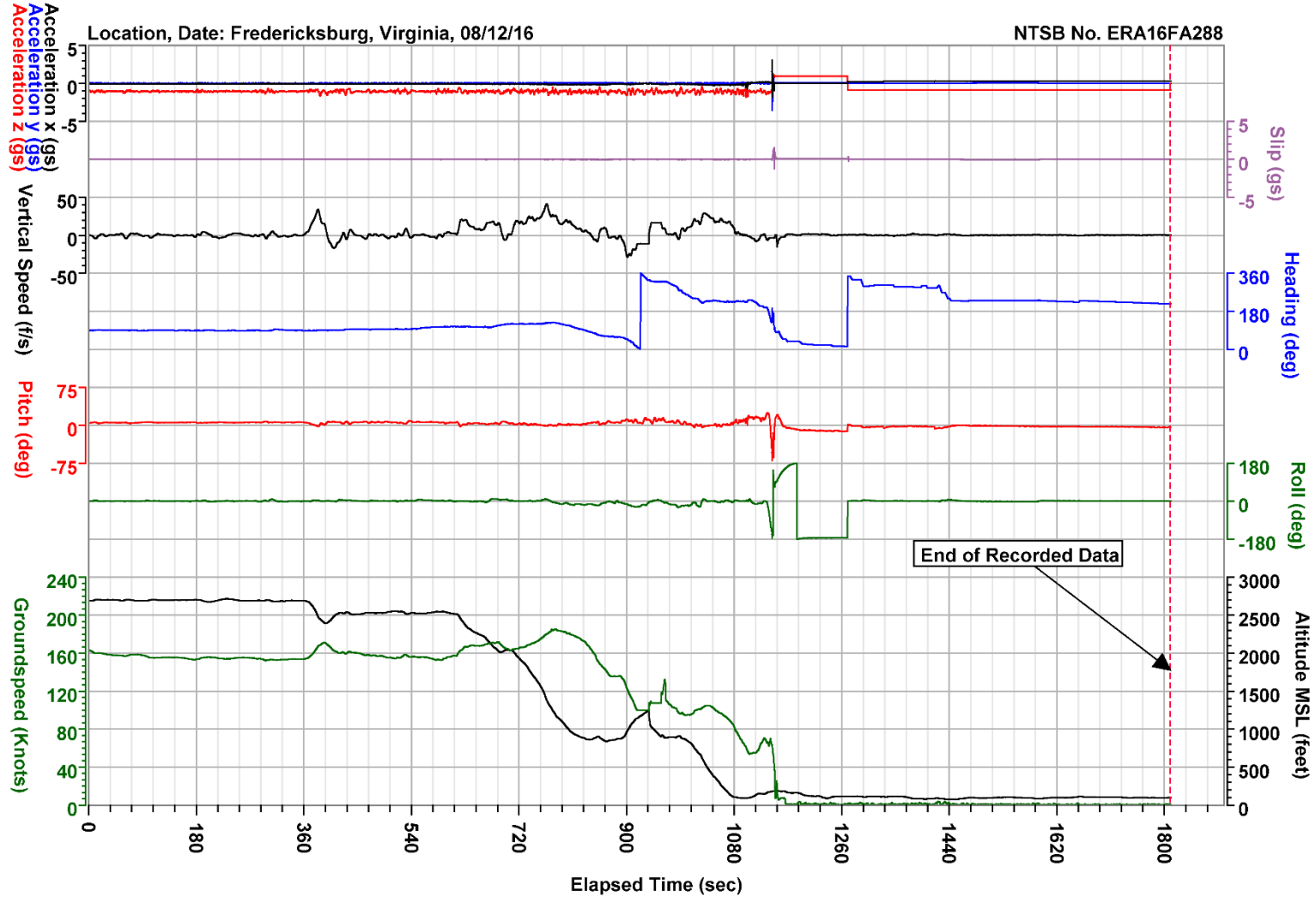
**Table 1. Data Parameters**

Parameter Name	Parameter Description
Time	Time for recorded data point (seconds elapsed)
Latitude	Recorded Latitude (degrees)
Longitude	Recorded Longitude (degrees)
Groundspeed	Recorded ground speed (knots)
Heading	Recorded heading (degrees)
Pitch	Recorded pitch (degrees)
Roll	Recorded roll (degrees)
Slip	Recorded slip (gs)
Acceleration X/Y/Z	Recorded acceleration in X, Y, and Z directions (gs)
Vertical Speed	Recorded vertical speed (feet per second)

Figure 1. Photo of Appareo Stratus 2S



Figure 2. Plot of data from Appareo Stratus 2S  
Private, Beechcraft BE-55, N128VB



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Figure 3. Google Earth overlay of the full recorded dataset



Figure 4. Google Earth overlay of the end of the recorded flight

