

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

October 12, 2016

Personal Electronic Devices

Specialist's Factual Report By Sean Payne

1. EVENT SUMMARY

Location: Hurricane, Utah
Date: December 10, 2015
Aircraft: Vans Aircraft RV-7
Registration: N307AB
Operator: Private
NTSB Number: WPR16FA036

On December 10, 2015, about 1347 mountain standard time, a Barnett Allen Experimental amateur built, Vans Aircraft, Inc., RV7 airplane, N307AB, experienced an inflight break up, and sustained substantial damage when it impacted terrain about 3 miles west of the General Dick Stout Field Airport, Hurricane, Utah. The airplane was registered to and operated by the pilot under the provisions of Title 14 *Code of Federal Regulations* (CFR) Part 91. The airline transport pilot and passenger were fatally injured. Visual (VMC) meteorological conditions prevailed, and no flight plan had been filed. The local personal flight departed from an unknown airport at an undetermined time.

2. DETAILS OF INVESTIGATION

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

Device Manufacturer/Model: **Apple iPhone 5S (White)**
Serial Number: **IMEI 352006063813415**

Device Manufacturer/Model: **Apple iPhone 5S (Black)**
Serial Number: **IMEI 352008062716573**

2.1. Device Description

PEDs are a category of devices comprised primarily of portable computing devices and mobile phones. Portable computing devices are typically capable of internet access, email, messaging services, and can run user-installed applications to perform specific tasks. Depending on the model, mobile phones can perform many of the same tasks as

portable computing devices, plus have voice call and text messaging capabilities. PED user and system data is typically stored on non-volatile memory¹ and can be accessed through manufacturer-provided interfaces.

2.2. Data Recovery

2.2.1. Apple iPhone 5S – (White) - IMEI 352006063813415

The device arrived to the laboratory in a hard plastic case (figure 1). The hard plastic case was removed and the device was inspected. The device exhibited light structural damage to its aluminum chassis. The device was minimally deformed; the screen was intact and showed no sign of damage. Power was applied to the device using the manufacturer's charging cable which resulted in the device functioning normally.



Figure 1. Photo of damaged iPhone 5S (White) IMEI 352006063813415.

2.2.2. Apple iPhone 5S – (Black) - IMEI 352008062716573

The device arrived to the laboratory exhibiting severe structural damage. The screen was shattered. The top portion of the device containing the camera and ear piece was not present and assumed destroyed. The device's screen was removed. The device's main board was intact but bent. The main board was removed from the phone and connected to a surrogate device. The surrogate device was able to power the phone, however, the device failed to power the screen of the surrogate device. The device was connected to a PC to attempt a forensic read out. The PC could not access the contents of the PED.

The device was sent to a third party data recovery laboratory. The third party laboratory was not able to get the device to function, nor was the laboratory able to recover any electronic data.

Figure 2 is a photo of the device as received.

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



Figure 2. Photo of damaged iPhone 5S (Black) IMEI 352008062716573.

3. DEVICE INVESTIGATIONS

3.1. Apple iPhone 5S – (White) - IMEI 352006063813415

The device was password protected and could not be accessed. The password for the device could not be obtained.

3.2. Apple iPhone 5S – (Black) - IMEI 352008062716573

The device's main board failed to power the screen in the surrogate device. Additionally, the device could not be examined when connected to a PC.