

# NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division  
Washington, D.C. 20594

January 10, 2013

## 17 – Electronic Device Factual Report

Specialist's Factual Report  
by Bill Tuccio

### 1. EVENT

Location: Parkton, North Carolina  
Date: December 16, 2012  
Aircraft: Piper PA-28-160  
Registration: N5714W  
Operator: Private  
NTSB Number: ERA13FA088

On December 16, 2012, about 1532 eastern standard time, a Piper PA-28-160, N5714W, registered to and operated by a private individual, crashed in a wooded area near Parkton, North Carolina. Instrument meteorological conditions prevailed at the time and an instrument flight rules (IFR) plan was filed for the 14 Code of Federal Regulations (CFR) Part 91 personal flight from Summerville Airport (DYB), Summerville, South Carolina, to Fayetteville Regional Airport/Grannis Field (FAY), Fayetteville, North Carolina. The airplane sustained substantial damage and the private pilot, the sole occupant, was fatally injured. The flight originated from DYB about 1400.

### 2. DETAILS OF DEVICE INVESTIGATION

The Safety Board's Vehicle Recorder Division received the following device:

Device: Apple iPad 3  
Device Serial Number: DMPJC2X1DJ8V

#### 2.1. Apple iPad 3 Device Description

The Apple iPad is a tablet computer with a high-resolution color touch-screen interface. All iPad devices support WiFi and Bluetooth connectivity, and use either 16, 32, or 64 GB of non-volatile memory for storage (depending on model). Some devices also support data connectivity via existing cell-phone networks. The iPad also includes front and back cameras. The iPad implements its functionality by running programs called "Apps" capable of supporting web-browsing, email, audio/video playback, contact and calendar management, and numerous other specialized functions. User-installed Apps can be used to support functionality for electronic flight bags, flight planning and filing,

aviation weather depiction, and electronic flight charts. Application data is stored in non-volatile memory and may include image, video, and position location information. Specialized application data may be stored in a proprietary file structure using numerous proprietary file formats. The amount and type of data stored varies based on the software version and configuration of the specific device.

### **2.1.1. Apple iPad 3 Data Recovery**

Upon arrival at the Vehicle Recorder Laboratory, an exterior examination revealed that the unit had sustained significant impact damage, as shown in figure 1. The unit was disassembled, as shown in figure 2. The main memory board was bent and at least two internal chips were cracked, as shown in figure 3. No further recovery efforts to obtain data were attempted.

**Figure 1. Apple iPad 3 - front.**



Figure 2. Apple iPad 3 - internal.

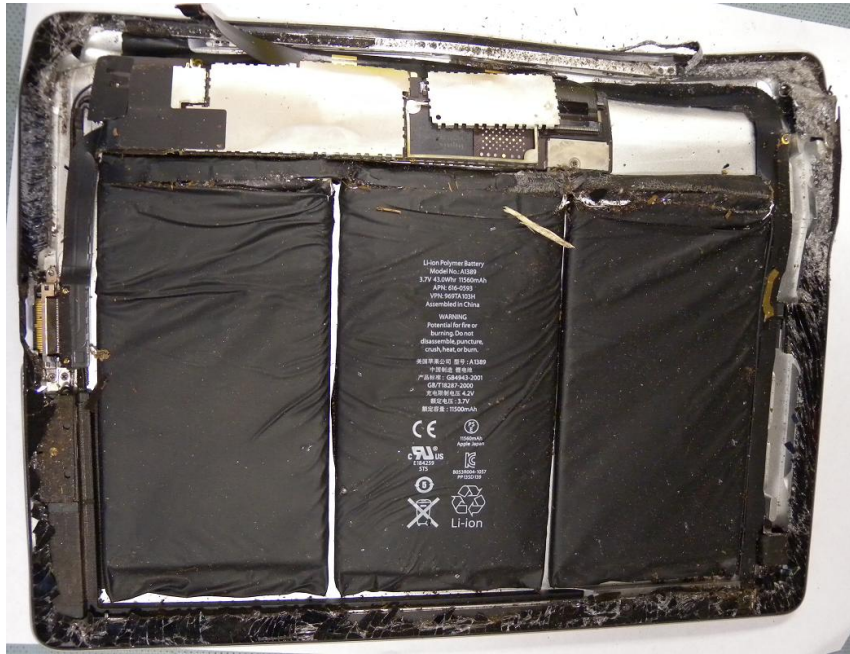


Figure 3. Cracked chip.



### **2.1.2. Apple iPad 3 Data Description**

No data were recovered from the unit.