

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

May 23, 2016

Personal Electronic Device

Specialist's Factual Report
By Jane Foster

1. EVENT SUMMARY

Location: Moncks Corner, South Carolina
Date: July 7, 2015
Aircraft: Cessna 150M
Registration: N3601V
Operator: Private
NTSB Number: ERA15MA259AB

2. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received the following device:

Device Manufacturer/Model:	Samsung Galaxy Tab 4
Serial Number:	R52F50461JV

2.1. Device Description

The Samsung Galaxy Tab 4 is a tablet computer with a high-resolution color touch-screen interface. The Samsung Galaxy Tab 4 supports WiFi and Bluetooth connectivity, includes front and back cameras, and uses non-volatile memory for storage. The Samsung Galaxy Tab 4 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.

2.2. Device Condition

Upon arrival at the Recorder Laboratory, an examination revealed the unit had sustained corrosion damage. This device was exposed to the elements as the tablet

was not recovered until weeks after the accident occurred. The Samsung Galaxy Tab 4 is shown in figures 1 and 2. The extraction of the data was performed by using a surrogate unit. Figure 3 shows some of the corrosion damage that was present on the device.

Figure 1. Front of Samsung Galaxy Tab 4 as received.



Figure 2. Back of Samsung Galaxy Tab 4 as received.

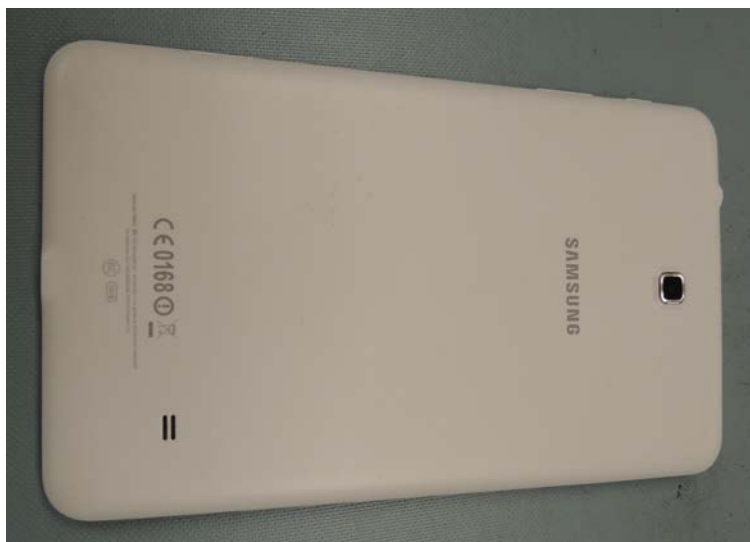
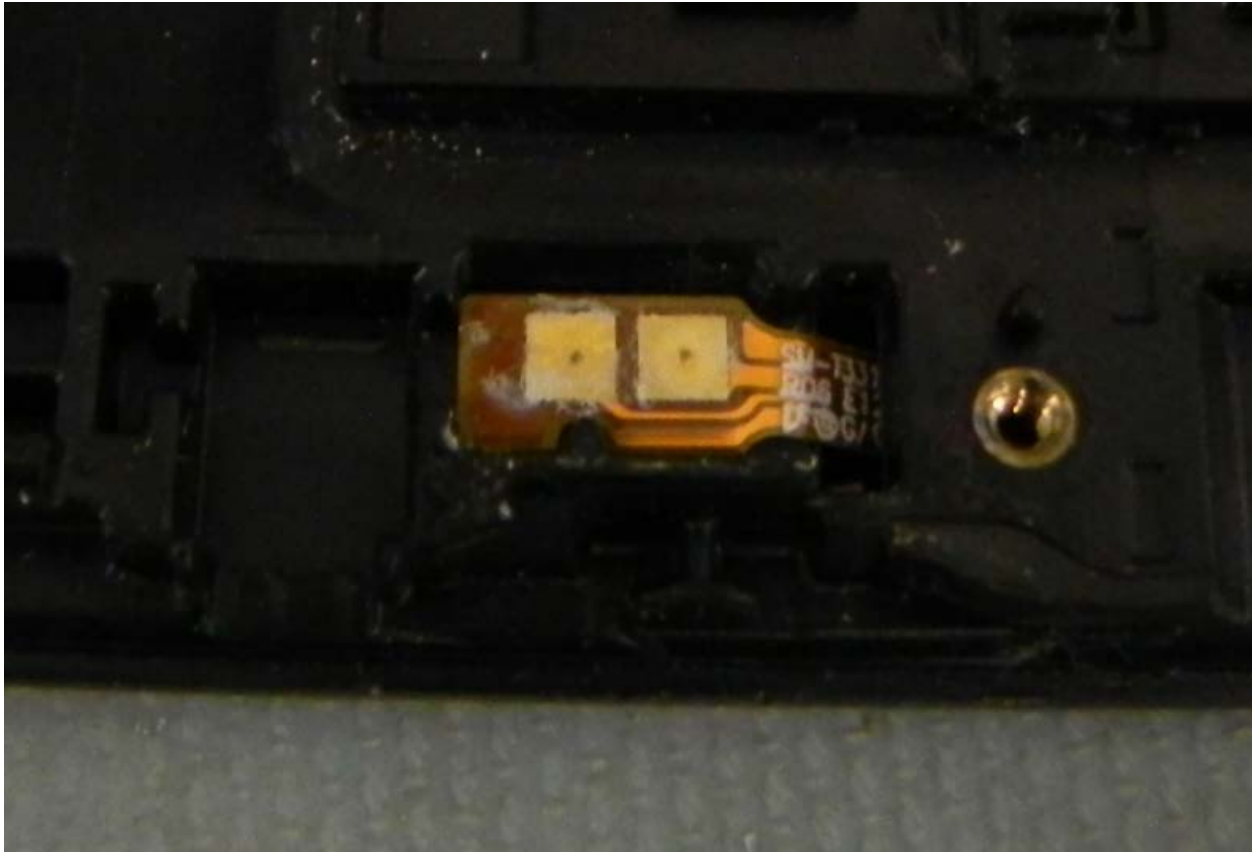


Figure 3. Example of corrosion damage present on device.



2.3. Data Description

This device is capable of storing data in the non-volatile memory (NVM)¹. The extent of the moisture damage and corrosion precluded normal recovery procedures and additional attempts were unsuccessful in yielding usable data. Therefore, no data pertinent to the event were recovered.

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