

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

May 30, 2012

17 – Cell Phone Factual Report

Specialist's Factual Report by Bill Tuccio

1. EVENT

Location: Lake in the Hills, Illinois
Date: May 3, 2012
Aircraft: Beechcraft S35
Registration: N176Q
Operator: Private
NTSB Number: CEN12FA271

On May 3, 2012, about 1515 central daylight time (CDT), a Beechcraft S35, N176Q, was substantially damaged when it hit terrain in a spent quarry, just east of Lake in the Hills Airport (3CK), Lake in the Hills, Illinois. The commercial certificated pilot and certified flight instructor were fatally injured. The airplane was registered to and operated by the pilot under the provisions of 14 Code of Federal Regulations Part 91 as an instructional flight. Visual meteorological conditions prevailed for the flight, which operated without a flight plan. The local flight originated from 3CK.

2. DETAILS OF DEVICE INVESTIGATION

The Safety Board's Vehicle Recorder Division received the following devices on May 18, 2012:

Device 1: Samsung Galaxy S II Cell Phone
Device 1 Serial Number: R21C30WJKPW
Device 2: Samsung TracFone Cell Phone
Device 2 Serial Number: RPRB974470R

2.1. Samsung Galaxy S II Cell Phone Description

The Samsung Galaxy S II is a touch-screen smart-phone capable of voice calling, text messaging, email, photo/video recording, audio (music) playback, and numerous other specialized functions depending on configuration. Specialized functions are supported by additional user-installed program applications supported by the Android operating system. Application data is stored in non-volatile memory and a removable micro-SD card, and may include call logs, text messaging logs, image, video, and position location

information. In addition, the specialized application data may be stored in a proprietary file structure using numerous file formats. The amount and type of data stored varies based on the software version and configuration of the specific device.

2.1.1. Samsung Galaxy S II Cell Phone Data Recovery

Upon arrival at the Vehicle Recorder Laboratory, an exterior examination revealed that the unit had sustained major damage from impact, including damage to the touch screen, as shown in figures 1 and 2. An internal inspection revealed no internal damage, as shown in figure 3, and a 2GB micro-SD storage card. The 2GB micro-SD card was downloaded, and information on the phone was recovered using Samsung's Kies synchronization software.

Figure 1. Samsung Galaxy S II – front of device.

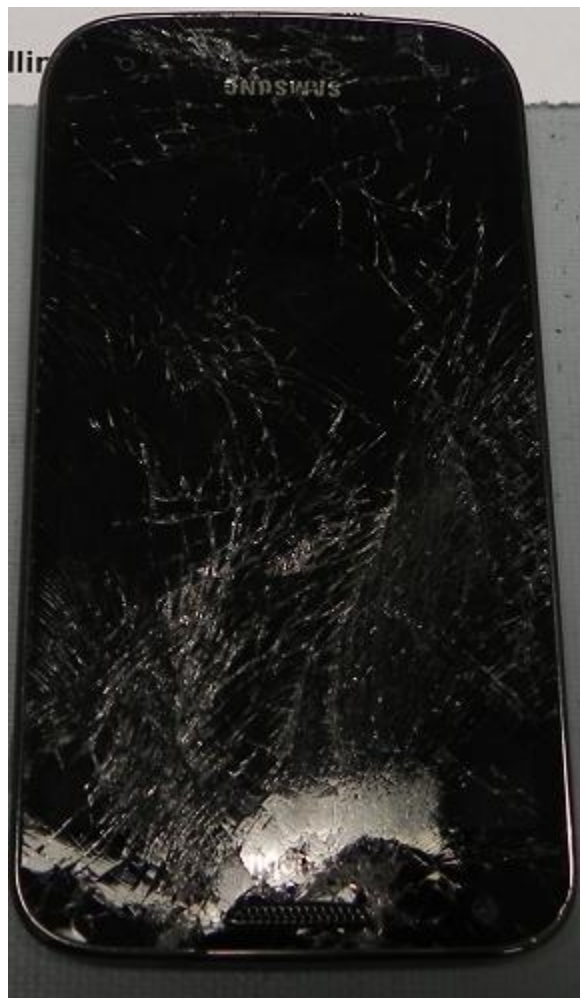


Figure 2. Samsung Galaxy S II – back of device.



Figure 3. Samsung Galaxy S II – internal inspection.



2.1.2. Samsung Galaxy S II Cell Phone Data Description

The micro-SD card and internal memory contained a variety of media not pertinent to the investigation. Due to damage, the call history could not be determined.

A total of 23 received and 15 outgoing text messages were retrieved occurring between April 24, 2012 and May 3, 2012 at 1922. Based upon content of the messages and the reported time of the accident, the time zone of the text message log appeared to be CDT. On May 2, 2012, the last messages sent and received were at 1734 and 1735, respectively. On May 3, 2012, the first messages sent and received were at 0625 and 0715, respectively. A message received at 0748 on May 3, indicated a meeting at the

3CK airport at 1130, followed by a route to Dupage, Burlington, and back to 3CK. A reply message was sent at 0834, confirming the 1130 time. There were no other messages pertinent to the investigation.

2.2. Samsung TracFone Cell Phone Description

The Samsung TracFone is a compact, flip-phone design. The phone is capable of voice calling, text messaging, and photo transmission via multimedia text messaging.

2.2.1. Samsung TracFone Cell Phone Data Recovery

Upon arrival at the Vehicle Recorder Laboratory, an exterior examination revealed that the unit had sustained minimal damage, as shown in figures 4 and 5. The battery was missing from the phone. The phone could not be powered normally, and no extraordinary means were attempted to power the phone. However, the SIM card data was downloaded without difficulty.

Figure 4. Samsung TracFone - front of device.



Figure 5. Samsung TracFone - back of device.



2.2.2. Samsung TracFone Cell Phone Data Description

Only six text messages were available from the SIM card; call log and photo information were not retrievable. The text messages were dated from February 16, 2012 through May 2, 2012 and were not pertinent to the investigation.