

NATIONAL TRANSPORTATION SAFETY BOARD
Vehicle Recorder Division
Washington, D.C. 20594

February 14, 2022

Personal Electronic Device

Specialist's Factual Report
By W. Deven Chen

1. EVENT SUMMARY

Location: Castroville, Texas
Date: September 22, 2021
Vehicle: RMM-mini-track excavator
Number/Symbol: CAT 308
Operator: Union Pacific contractor – W.T. Byler Company
NTSB Number: RRD21LR016

2. GROUP

A group was not convened.

3. DETAILS OF INVESTIGATION

On November 18, 2021, the National Transportation Safety Board (NTSB) Vehicle Recorder Division received the following personal electronic device (PED):

Device Manufacturer/Model:	Samsung Galaxy Note 20
IMEI Number:	351102890218901

3.1. 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 (NVM) and can be accessed through manufacturer-provided interfaces.

3.2. Data Recovery

Upon arrival at the Vehicle Recorder Division, an exterior examination revealed the device had no damage, as shown in Figure 1. The device powered up normally and was not locked

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

with a passcode. The device belonged to the struck employee. The device was connected to a PC and read using forensic evidence recovery software for PEDs.



Figure 1: Front and back of Samsung Galaxy Note 20 as received.

The data were examined for indications of usage around the time of the event. The event occurred around 14:40 on September 22, 2021, central daylight time (CDT). All times are expressed in CDT for the rest of this report. The phone call activity data show that there was an incoming call at 14:38:23, and the phone call lasted 11-minutes and 1-second. At 14:55:55, the same person called, and this incoming call was shown not answered. Table 1 shows the phone call activity on September 22, 2021. The lab also received the Call Detail Record² (CDR) of this phone number from the service provider, which confirmed this incoming call at 14:38 CDT on September 22, 2021, with 11-minutes and 1-second duration.

Table 1: Phone Call activity on September 22, 2021.

CDT	Duration (hh:mm:ss)	Direction	Status
9/22/2021 21:29:43	00:00:00	Incoming	Missed
9/22/2021 17:15:13	00:00:00	Incoming	Missed
9/22/2021 17:13:02	00:00:00	Incoming	Missed
9/22/2021 17:11:36	00:00:00	Incoming	Missed
9/22/2021 17:01:37	00:00:00	Incoming	Missed
9/22/2021 17:00:48	00:00:00	Incoming	Missed
9/22/2021 16:41:31	00:00:00	Incoming	Missed
9/22/2021 14:55:55	00:00:00	Incoming	Missed
9/22/2021 14:38:23	00:11:01	Incoming	Answered
9/22/2021 9:13:22	00:00:21	Incoming	Answered
9/22/2021 9:11:36	00:01:50	Incoming	Answered
9/22/2021 8:09:47	00:32:16	Incoming	Answered
9/22/2021 8:05:53	00:00:48	Incoming	Answered
9/22/2021 8:05:10	00:00:23	Outgoing	Outgoing
9/22/2021 6:55:29	01:08:55	Incoming	Answered

² Call Detail Record – data record produced by a telephone exchange or other telecommunications equipment that documents the details of telephone calls or text messages that pass through that facility or device.