

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, D.C. 20594

August 20, 2019

Call Detail Records

Specialist's Factual Report
By Deven Chen

1. EVENT

Location: Granite Canyon, Wyoming
Date: October 4, 2018
Vehicle 1: Union Pacific Locomotive MGRCY04
Vehicle 2: Union Pacific Locomotive MPCNP03
NTSB Number: RRD19FR001

2. EVENT SUMMARY

On October 4, 2018, at 7:38 p.m. mountain daylight time, an eastbound Union Pacific (UP) freight train MGRCY04 (striking train) collided with the rear of a stationary UP freight train MPCNP03 (stationary train) in Granite Canyon, Wyoming. Prior to the accident, the crew of the striking UP freight train reported problems with the train's airbrake system and radioed the UP Harriman Dispatch Center to advise them they had accelerated to 50 mph and were unable to stop. At the time of the accident, the striking train was traveling on a descending grade leading up to the point of collision. In the accident, the engineer and conductor of the striking train were killed, and 3 locomotives and 57 cars of the striking train derailed while 9 cars of the stationary train derailed. No hazardous materials were released. The crew of the stationary train had deboarded and cleared the area after receiving instructions from the dispatcher about the impending danger and were unharmed. The accident occurred near milepost (MP) 527 on the Laramie Subdivision, about 18 miles west of Cheyenne, Wyoming.

3. DETAILS OF DEVICE INVESTIGATION

The NTSB's Vehicle Recorder Division received call detail records for mobile phone accounts associated with the following phone numbers:

User: MGRCY04 Engineer
Service Provider: Verizon

User: MGRCY04 Conductor
Service Provider: AT&T

The Call Detail Records (CDRs) were obtained via subpoena issued by the NTSB Office of the General Counsel. At the direction of the NTSB Investigator-In-Charge (IIC), each set of records was examined for indications of usage between 12:00 AM October 4, 2018 and 12:00 AM October 5, 2018 mountain daylight time (MDT).

3.1. Call Detail Record Description

Call detail records are produced by a telecommunications service provider documenting the details of telephone calls, text messages, picture/video messages, data usage, and other transactions. The exact information provided varies depending on the provider.

3.2. MGRCY04 Engineer Phone

3.2.1 Phone Call Activity

Table 1 summarizes the phone call activity during the pertinent time period. Time stamps are provided in mountain daylight time.

Table 1. Phone Call Activity

Date/Time	Duration (mm:ss)	Direction
10/4/2018 12:13:55	0:35	Incoming

3.2.2 Text and Picture/Video Message Activity

No text message activity during the pertinent time period on the CDRs. No picture/video message activity at all on the CDRs.

3.2.3 Data Usage

Table 2 summarizes the internet connection activity during the pertinent time period. Time stamps are provided in mountain daylight time. However, it is not possible to distinguish between user-initiated data activity and automatic background data activity by the device's operating system or installed applications.

Table 2. Internet Connection Activity

Start Date/Time	Stop Date/Time
10/4/2018 3:34:08	10/4/2018 3:34:10
10/4/2018 3:32:21	10/4/2018 3:36:21
10/4/2018 3:32:19	10/4/2018 8:36:10
10/4/2018 3:32:05	10/4/2018 8:36:11
10/4/2018 5:09:16	10/4/2018 9:26:22
10/4/2018 3:32:21	10/4/2018 14:36:11

3.3. MGRCY04 Conductor Phone

3.3.1 Phone Call Activity

Table 3 summarizes the phone call activity during the pertinent time period. Time stamps are provided in mountain daylight time.

Table 3. Phone Call Activity

Date/Time	Duration (mm:ss)	Direction
10/4/2018 7:15:22	0:51	Incoming
10/4/2018 8:12:03	0:00	Incoming
10/4/2018 12:00:49	0:00	Incoming
10/4/2018 20:25:43	0:00	Incoming
10/4/2018 21:35:45	0:00	Incoming
10/4/2018 21:49:31	0:00	Incoming
10/4/2018 21:55:33	0:00	Incoming

3.3.2 Text and Picture/Video Message Activity

Table 4 summarizes the text message activity during the pertinent time period. Time stamps are provided in mountain daylight time. No picture/video message activity on the CDRs.

Table 4. Text Message Activity

Date/Time	Message Direction
10/4/2018 6:08:06	Incoming
10/4/2018 6:08:19	Incoming
10/4/2018 7:21:26	Outgoing
10/4/2018 7:21:41	Outgoing
10/4/2018 7:40:05	Outgoing
10/4/2018 7:41:13	Incoming
10/4/2018 7:41:21	Outgoing
10/4/2018 7:41:33	Outgoing
10/4/2018 7:41:59	Incoming
10/4/2018 7:47:13	Outgoing
10/4/2018 8:00:25	Incoming
10/4/2018 9:23:33	Incoming
10/4/2018 10:28:06	Incoming
10/4/2018 14:54:48	Incoming
10/4/2018 16:37:29	Incoming

3.3.3 Data Usage

Table 5 summarizes the internet connection activity during the pertinent time period. Time stamps are provided in mountain daylight time. However, it is not possible to distinguish between user-initiated data activity and automatic background data activity by the device's operating system or installed applications.

Table 5. Internet Connection Activity

Connection Date/Time	Duration (hh:mm:ss)
10/4/2018 0:53:15	60:00:00
10/4/2018 1:53:15	60:00:00
10/4/2018 2:53:15	60:00:00
10/4/2018 3:53:15	60:00:00
10/4/2018 4:53:15	60:00:00
10/4/2018 5:53:15	60:00:00
10/4/2018 6:53:15	22:08
10/4/2018 7:15:28	60:00:00
10/4/2018 7:15:28	101:58:00
10/4/2018 8:15:28	41:57:00
10/4/2018 8:57:31	11:41
10/4/2018 16:36:54	2:29
10/4/2018 16:36:55	2:28