

**NATIONAL TRANSPORTATION SAFETY BOARD**  
Vehicle Recorder Division  
Washington, DC 20594

August 26, 2013

## **On-Board Image Factual Report**

**Specialist's Factual Report**  
**By Bill Tuccio**

### **1. EVENT**

Location: New York, New York  
Date: July 18, 2013  
Operator: CSXT  
NTSB Number: DCA13FR009

### **2. GROUP**

A group was not convened.

### **3. SUMMARY**

On July 18, 2013, at 08:29 p.m., northbound CSXT train Q 704, derailed at milepost 9.99 on the Metro-North Railroad Hudson Line. The train consisted of 2 locomotives and 24 modified flat cars. Each flat car carried 4 containers loaded with garbage. The train departed CSXT Oak Point Yard and was routed onto the Metro-North Railroad (MNCW) at Control Point (CP) 8.0 and derailed 72 feet 10 ¼ inches north of CP 10. Video files from the lead and second locomotive, CSXT 8846 and CSXT 8833, respectively, were downloaded by CSXT and sent to the National Transportation Safety Board's Image Laboratory for evaluation.

### **4. DETAILS OF INVESTIGATION**

The NTSB Vehicle Recorder Division's Image Laboratory received three video files from a General Electric (GE) LocoCam video recorder.

#### **4.1. Recorder Description**

The GE Lococam Video recorder is a forward facing video camera that records to external storage. It records video at a resolution of 720x480 pixels and 15 fps in color. External audio is also recorded.

#### **4.2. Video Files**

Two video files were received:

- **CSXT 8846.** This forward-facing video was from the lead locomotive. It covered a 20-minute period, which included the time the train passed the point of derailment.
- **CSXT 8833.** This rearward-facing video was from the second, trailing locomotive. It covered a 20-minute period, which included the time the train passed the point of derailment.

### **4.3. Timing and Correlation**

The times used in this report are expressed as eastern daylight time (EDT), based upon the time as recorded by the train video systems. The videos were recorded as Greenwich Mean Time (GMT). Accordingly, 4 hours was subtracted from GMT to convert to EDT.

### **4.4. Summary of Recording Contents**

In agreement with the Investigator-In-Charge, a video group did not convene and only this summary report was prepared. Appendix A, figure A-1 contains an annotated Google Earth overlay of points referenced by this report.

#### **4.4.1. Video Recording One: CSXT 8846**

The extracted video recording began at about 2025 EDT, as the CSXT 8846 was moving north along the left track. The middle and far right of the video image was distorted and blurry.

At 2025:33 EDT, CSXT 8846 began to pass a stopped passenger train to the right, near Marble Hill Station. By 2027:12 EDT, CSXT 8846 passed the northern most car of the passenger train.

At 2027:06 EDT, CSXT 8846 began to go under the Overstructure.

At 2027:25 EDT, the track CSXT 8846 occupied began to merge right with another track, as shown in figure 1. Shortly thereafter, CSC 8846 exited from under the Overstructure.

At 2027:37 EDT, CSXT 8846 approached the Point of Derailment. The adjacent track exhibited white discoloration as shown in figure 2.

Between 2027:49 and 2027:56 EDT, as CSXT 8846 passed the Point of Derailment, the train oscillated slightly left and right.

At 2029:04 and again at 2029:13 EDT, a compressed air sound was recorded.

At 2029:14 EDT, CSXT 8846 came to a stop at the Spuyten Dival Station and remained stopped until the end of the recording.

At about 2042 EDT, firefighters approached CSXT 8846.

The video extracted by CSXT ended at about 2045 EDT.

**Figure 1. Track merge at end of Overstructure.**



**Figure 2. White discoloration of adjacent track.**



#### 4.4.2. Video Recording Two: CSXT 8833

The extracted video recording began at about 2025 CDT as CSXT 8833 was travelling northbound. The rearward facing camera recorded images off the left side of the train. As the train turned left, the camera recorded images of the trailing cars; however, none of the recorded images recorded cars derailing.

At 2027:22 EDT, CSXT 8833 began to pass under the Overstructure.

At 2027:31 EDT, CSXT 8833 exited the Overstructure, as shown in figure 3. Figure 3 also annotates the direction of travel of the train.

At 2027:56 EDT, CSXT 8833 passed a southbound, red signal (to the left of the train) near the Point of Derailment, as shown in figure 4. CSXT 8833 oscillated laterally and vertically until about 2028:02 EDT.

At 2029:07 EDT, a loud, compressed air sound was recorded.

At 2029:18 EDT, CSXT 8833 came to a stop and remained stopped until the end of the recording. The sound of unintelligible voices were recorded until the end of the recording, similar to an operational radio.

At 2030:25 EDT, a person wearing a CSXT uniform walked between CSC 8833 and the car behind CSXT 8833, then proceeded south along the shoreline. About a minute later, another person walked south along the shoreline.

The video extracted by CSXT ended at about 2045 EDT.

Figure 3. Exiting Overstructure with direction of travel annotated.



Figure 4. Passing southbound signal.



## APPENDIX A

Figure A-1. Google Earth overlay of reference points.

