



**RAILROAD OPERATIONS GROUP CHAIRMAN'S
FACTUAL REPORT**

Penwell, Texas

HWY15MH004

(4 pages)

**NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF HIGHWAY SAFETY
WASHINGTON, D.C.**

**RAILROAD OPERATIONS GROUP CHAIRMAN'S
FACTUAL REPORT**

A. CRASH INFORMATION

Location: Interstate 20 (I-20) Ector County near Penwell, Texas
Vehicle #1: 2015 Bluebird bus
Operator #1: Texas Department of Criminal Justice
Vehicle #2: Union Pacific Train Q40927, consisting of 4 locomotives, 58 cars
Operator #2: Union Pacific Railroad
Date: January 14, 2015
Time: Approximately at 07:49 a.m. CST
NTSB #: **HWY15MH004**

B. RAILROAD FACTORS GROUP

Group Members:
James A. Southworth – Group Chairman - IIC Railroad Division
NTSB Headquarters
Washington DC southwj@ntsb.gov

Kelly Seachord, Regional General Manager
Union Pacific Railroad
Omaha, NE

Cecil Copeland, General Director
Union Pacific Railroad
Omaha, NE

Jamie Heidvogel, Manager Safety Analysis, Safety & Regulatory Compliance
Operating Practices
Union Pacific Railroad
Omaha, NE

C. CRASH SUMMARY

For a complete summary of the crash, refer to the *Accident Summary Report* or *IIC Factual Report of the Investigation* in the docket for this investigation.

D. DETAILS OF THE RAILROAD FACTORS INVESTIGATION

1. Operating Documents

The Railroad Operations Group assessed the location of the accident for any indication or evidence of train operations being causal to the accident. None were found. Crew (an engineer and a conductor) statements were examined. The crew went on duty at 5:46 a.m. and departed with their train at 6:45 a.m. The crew stated that at about 7:45 a.m. the locomotive computer screen flashed an end-of-train (EOT) device warning followed by pressure dropping at the EOT. The engineer state she put the train into emergency and the train stopped. The conductor exited the locomotive cab and inspected the train when he saw that the train had been struck by a bus that left the highway above the railroad grade. A dispatcher informed the train crew that a vehicle may have hit their train. Neither crew member witnessed any part of the bus striking the train until the train went into emergency braking (caused by an air brake hose separation resulting from the impact of the bus striking the train). The Union Pacific Toyha Subdivision timetable was requested and received. The maximum speed in the area of the derailment was 50 mph. The train originated in Los Angeles, California and was travelling to Marion, Arkansas.

The UP typically operates between 17 and 22 trains per day between Toyah and Odessa, TX. The traffic volume is sensitive to the day of week demand for intermodal service. During the fourth quarter of 2014, trains through the accident area averaged near 17 trains per day – train direction showed to be 8 westbound trains and 9 eastbound trains.

2. Train Consist

The Union Pacific Railroad train No. ZLCMN2 13 had four locomotives. The lead locomotive was UP 7363. The train was pulling 37 loaded intermodal cars – many were articulated 3 and 5 unit flat cars for trailers or containers.ⁱ None of the cars derailed from the impact of the bus.

3. Site Description

On January 14, 2015, about 7:50 a.m. a Texas Department of Criminal Justice bus was traveling westbound on Interstate 20 near Penwell, TX when it left the roadway just prior to a split highway bridge. The bus was travelling from Abilene to El Paso, TX. Beneath the bridge were active railroad tracks belonging to the Union Pacific Railroad (UP).

After the bus left the highway it became airborne and then struck a berm just above the railroad tracks before striking the train at the 54th railcar – an articulated intermodal spine car designed for carrying highway truck trailers. Two highway trailers were torn open during the accident allowing cargo to be exposed and damaged or destroyed.

The train crew had no warning and were not aware of the incident until noticing rapidly decreasing brake pipe pressure at the rear of the train (end-of-train-device pressure gage) prompting the engineer to place the train in emergency from the locomotive cab (train was in emergency braking due to a separation in the air brake line).

Union Pacific track profile for the Toyha Subdivision was requested and received. Photographs taken by Union Pacific before NTSB arrival were requested and received. For more details of the accident site, see the Accident Summary Report for this accident in the official public docket.

4. Recorders

Union Pacific original downloaded event recorder data was requested and received. The event recorder equipment was inspected and found to be fully functional with reliable data. According to the event recorder data, at the time of the accident, the freight train, with 4 locomotives and 58 cars (37 intermodal cars, many of which were articulated 3 and 5 unit flat cars for transporting highway trailers or containers), was travelling eastbound on the tracks at 46 miles per hour.

Front end video from the lead locomotive was viewed by the parties and presented no images of the bus or the bus impact with the train. Video images were therefore not retained by NTSB.

5. Damages

The damage to the railroad equipment and track was estimated to be about \$7,000.

No railroad issues have been identified for this accident investigation.

ⁱ Articulated cars are created by the uniting of two or more rail car segments or units to form a single unit whose couplings are created by a drawbar or coupling included between the segments or units. Many articulated cars share a common truck (wheel set) under the couplings.