



***Federal Railroad Administration
Office of Railroad Safety
Accident and Analysis Branch***

***Accident Investigation Report
HQ-2013-01***

***New Jersey Transit Rail Operations (NJTR)
Little Falls, NJ
January 30, 2013***

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report, including this one, made by the Secretary of Transportation/Federal Railroad Administration under 49 U.S.C. §20902 may be used in a civil action for damages resulting from a matter mentioned in the report.

FRA FACTUAL RAILROAD ACCIDENT REPORT

TRAIN SUMMARY

1. Name of Railroad Operating Train #1 New Jersey Transit Rail Operations	1a. Alphabetic Code NJTR	1b. Railroad Accident/Incident No. 201301060
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GENERAL INFORMATION

1. Name of Railroad or Other Entity Responsible for Track Maintenance New Jersey Transit Rail Operations		1a. Alphabetic Code NJTR	1b. Railroad Accident/Incident No. 201301060	
2. U.S. DOT Grade Crossing Identification Number 266901J		3. Date of Accident/Incident 1/30/2013	4. Time of Accident/Incident 8:11 AM	
5. Type of Accident/Incident Hwy-Rail Crossing				
6. Cars Carrying HAZMAT	7. HAZMAT Cars Damaged/Derailed	8. Cars Releasing HAZMAT	9. People Evacuated	10. Subdivision Hoboken
11. Nearest City/Town Little Falls		12. Milepost (<i>to nearest tenth</i>) 19.2	13. State Abbr. NJ	14. County PASSAIC
15. Temperature (F) 41 °F	16. Visibility Day	17. Weather Fog		18. Type of Track Main
19. Track Name/Number Single Track		20. FRA Track Class Freight Trains-60, Passenger Trains-80		21. Annual Track Density (<i>gross tons in millions</i>)
				22. Time Table Direction East

OPERATING TRAIN #1

1. Type of Equipment Consist: Commuter Train-Pulling		2. Was Equipment Attended? Yes		3. Train Number/Symbol 1006	
4. Speed (recorded speed, if available) R - Recorded E - Estimated		Code R	5. Trailing Tons (gross excluding power units) 21 MPH		6a. Remotely Controlled Locomotive? 0 = Not a remotely controlled operation 1 = Remote control portable transmitter 2 = Remote control tower operation 3 = Remote control portable transmitter - more than one remote control transmitter
					Code 0

6. Type of Territory

Signalization:
N/A

Method of Operation/Authority for Movement:
N/A

Supplemental/Adjunct Codes:
A, Q, L, N/A

7. Principal Car/Unit		a. Initial and Number	b. Position in Train	c. Loaded (yes/no)	8. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.		Alcohol	Drugs
(1) First Involved (derailed, struck, etc.)		NJTR6001	1	yes				
(2) Causing (if mechanical, cause reported)		0	0		9. Was this consist transporting passengers?			Yes

10. Locomotive Units (Exclude EMU, DMU, and Cab Car Locomotives.)		a. Head End	Mid Train		Rear End		11. Cars (Include EMU, DMU, and Cab Car Locomotives.)	Loaded		Empty		
			b. Manual	c. Remote	d. Manual	e. Remote		a. Freight	b. Pass.	c. Freight	d. Pass.	e. Caboose
(1) Total in Train		0	0	0	0	1	(1) Total in Equipment Consist	0	5	0	0	0
(2) Total Derailed		0	0	0	0	0	(2) Total Derailed	0	0	0	0	0

12. Equipment Damage This Consist 238776		13. Track, Signal, Way & Structure Damage 200000	
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14. Primary Cause Code
M304 - Highway user cited for violation of highway-rail grade crossing traffic laws

15. Contributing Cause Code

Number of Crew Members				Length of Time on Duty			
16. Engineers/Operators	17. Firemen	18. Conductors	19. Brakemen	20. Engineer/Operator		21. Conductor	
1	0	1	1	Hrs: 1	Mins: 16	Hrs: 1	Mins: 16
Casualties to:	22. Railroad Employees	23. Train Passengers	24. Others	25. EOT Device?		26. Was EOT Device Properly Armed?	
Fatal	0	0	0	N/A		N/A	
Nonfatal	3	6	1	27. Caboose Occupied by Crew?			
				N/A			

28. Latitude		29. Longitude	
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CROSSING INFORMATION

Highway User Involved

Rail Equipment Involved

1. Type		5. Equipment	
2. Vehicle Speed (<i>est. mph at impact</i>)	3. Direction (<i>geographical</i>)		6. Position of Car Unit in Train
4. Position of Involved Highway User		7. Circumstance	
8a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? Neither		8b. Was there a hazardous materials release by Neither	
8c. State here the name and quantity of the hazardous material released, if any. N/A			
9. Type of Crossing Warning 1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other (<i>spec. in narr.</i>) 3. Standard FLS 6. Audible 9. Watchman 12. None 1, N/A, 6, 3		10. Signaled Crossing Warning 1, 1, 1, 1	11. Roadway Conditions N/A
12. Location of Warning Both Sides		13. Crossing Warning Interconnected with Highway Signals No	14. Crossing Illuminated by Street Lights or Special Lights No
15. Highway User's Age	16. Highway User's Gender	17. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train	18. Highway User
19. Driver Passed Standing Highway Vehicle		20. View of Track Obscured by (<i>primary obstruction</i>)	
Casualties to:	Killed	Injured	21. Driver was
23. Highway-Rail Crossing Users	0	0	22. Was Driver in the Vehicle?
24. Highway Vehicle Property Damage (<i>est. dollar damage</i>)		25. Total Number of Vehicle Occupants (<i>including driver</i>)	
26. Locomotive Auxiliary Lights? Yes		27. Locomotive Auxiliary Lights Operational? Yes	
28. Locomotive Headlight Illuminated? Yes		29. Locomotive Audible Warning Sounded? Yes	

SYNOPSIS

At 8:11 am EDT on January 30, 2013, eastbound New Jersey Transit commuter train 1006 struck the trailer of an 18 wheel tractor trailer. The accident occurred at the Main Street highway grade crossing located in Little Falls, NJ. The DOT crossing number is 266901J. Main Street is located at milepost 19.2 on the Montclair Line of the Hoboken Division of New Jersey Transit Rail Operations.

The weather was 41 degrees and clear, but there was dense fog with limited visibility.

There was no derailment or fatalities at the scene. There were ten injuries reported. They consisted of one person at the crossing, three crew members and six passengers on board train 1006.

The probable cause of the accident was M304 - Highway user cited for violation of highway-rail grade crossing traffic laws. The truck driver received two citations from local law enforcement. The northbound truck driver crossed the tracks and attempted to make a sharp left turn into a side street. The driver failed to properly execute the turn and when the crossing approach was activated by train 1006, he attempted to back up and proceed straight to clear the trailer from the crossing. His efforts were unsuccessful and the trailer was struck by train 1006 as a result.

NARRATIVE

Circumstances Prior to the Accident

The crew of train 1006, consisting of one engineer, one conductor, and one brakeman. They reported for work at Port Morris Yard following more than the statutory off duty rest period. The job assignment was HB OUME05 and was the crew's regular assignment. The crew signed up at 6:46 am EDT on January 30, 2013. The first assigned train was train 1006, scheduled to depart Port Morris Yard at 7:16 am. Train 1006 operates on the Montclair Line of New Jersey Transit's Hoboken Division. Train 1006 was an eastbound commuter train scheduled to make 21 station stops beginning in Lake Hopatcong en route to the final destination of Hoboken, NJ. Arrival time at Hoboken is 9:03 am. Train 1006 consisted of 5 passenger cars and one locomotive. The consist from east to west was cab car 6001, 6500, 6573, 6502, 6584, and locomotive 4212. The train was properly brake tested and cab signals were also properly tested. Train 1006 departed Port Morris Yard, NJ on time at 7:16 am, making its first station stop at Lake Hopatcong, NJ at 7:23 am. The trailer was clear but visibility on January 30, 2013 was limited due to dense fog in the area. The trip for train 1006 was uneventful and train 1006 departed the Route 23 station stop at 8:09 am. The Route 23 station stop was the final stop prior to arriving at the Main Street highway rail grade crossing in Little Falls, NJ.

As train 1006 approached the accident area, the engineer was operating the train from cab car 6001. Crew members were located throughout the train attending to passenger services. The conductor and one brakeman was located in car 6001. One brakeman was located between cars 6573 and 6502.

The tractor trailer was only occupied by the driver and was travelling northbound on Main Street. Maximum speed of the two lane road is 35 mph. However, the truck had slowed due to an impending left turn following the crossing of the railroad. The truck made an attempt to turn left, however, the driver made the turn too wide and was unable to complete the left turn. The trailer of the truck still fouled the railroad crossing. When the crossing warning system activated, the truck driver attempted to back the truck up. He did this to straighten the cab so that he could pull the truck straight down Main Street and off the railroad crossing.

The Accident

Train NJT 1006 East

The train was being operated at 59 mph approaching the accident area. The engineer's view of the crossing was limited due to dense fog in the area. The engineer observed the truck fouling the crossing and initiated an emergency brake application 1209 feet prior to impact. The train slowed to 21 mph at point of impact. The speeds were recorded by the event recorder of cab car 6001 and locomotive 4212. The maximum authorized speed for this train was 60 mph, as designated in the current NJT Timetable.

Highway Vehicle

The tractor trailer was travelling south to north on Main Street. The truck was carrying 5 gallon containers of yellow paint to be delivered to a business located on a side street off Main Street. The truck drove across the railroad crossing and was attempting to navigate a tight left turn but was unable to do so. It was while the truck was across the railroad tracks that train 1006 entered the approach warning circuit activating the crossing for Main Street. The truck driver attempted to back the truck, straighten the cab, and pull off the railroad crossing. Unable to successfully do this, the driver exited the cab of the truck and was uninjured upon impact.

The train struck the middle of the trailer on the left side, tearing a hole through the trailer and spewing yellow paint from broken 5 gallon containers throughout the area. The trailer and its trailer wheels stayed on the street after the impact. The train came to a stop 947 feet east of the accident site.

After the train stopped, the locomotive engineer and two crew members had been injured. Little Falls, NJ police and EMS initially responded to the scene. The engineer and a school crossing guard, who was on the ground when the impact occurred, were placed on a backboard and removed to St. Joseph's Hospital in Passaic, NJ. Additionally, police departments from New Jersey Transit and Essex County responded to the accident. EMS from Little Falls and the Little Falls Fire Department also responded. Essex County and NJ State Hazardous Material officials also responded to the accident. NJ Transit Police coordinated the efforts from a command center set up at the corner of Main St. and Dewey Avenue. Police departments were coordinated for traffic control and assisting in the transfer of the 50 passengers from train 1006 to buses. The fire department was on standby, the hazardous material officials assisted with clean up of the paint, and EMS personnel worked on injuries suffered as a result of the accident.

There were ten injuries as a result of the collision. A school crossing guard, working at the corner of Main Street was struck by debris and removed via backboard and admitted to St. Joseph's Hospital. The engineer of train 1006 was also removed from the scene of the accident via backboard and admitted to St. Joseph's Hospital. The remaining injured were treated and released from the hospital, which consisted of one conductor, one brakeman, and six passengers.

The 50 passengers of train 1006 were transferred to buses at 10:10 am. The passengers were brought to the Montclair State College station and obtained train service to continue to Hoboken.

Damage to the railroad equipment was estimated at \$238,776 and damage to the signal infrastructure was \$200,000.

Analysis and Conclusions

Analysis: There were no post accident toxicological tests performed or required by FRA for this accident type of accident.

Conclusion: No post toxicological tests were performed.

Analysis: Witnesses and the crossing event recorder indicate that the crossing was functioning as intended. The Main Street crossing was last tested on January 16, 2013.

Conclusion: Post accident testing of the grade crossing warning system indicate that the Main Street crossing was functioning as intended.

Analysis: The driver of the tractor trailer received two summons from the NJ Transit police. The summons were for stopping on railroad tracks and careless driving.

Conclusion: The driver of the tractor trailer failed to comply with State traffic laws.

Following the accident the New Jersey Department of Transportation convened a meeting consisting of local police, FRA, NJDOT, and NJ Transit officials. The purpose was to determine if reconfiguring the grade crossing warning system to allow for a wider left turn at this location would be possible. It was determined that NJDOT would provide funding for cantilevers at Main Street. This would allow the relocation of a crossing mast west approximately 10 feet from its present location approximately 10 feet. This additional space will allow for a wider left turn for tractor trailers at this location.

Overall conclusions

FRA's investigation concluded that train NJTR 1006 was operated in compliance with all applicable Federal regulations and railroad operating rules. The grade crossing was functioning as intended.

Probable Cause and Contributing Factors

The probable cause of the accident was M304 - Highway user cited for violation of highway-rail grade crossing traffic laws. The truck driver received two citations from local law enforcement. The northbound truck driver crossed the tracks and attempted to make a sharp left turn into a side street. The driver failed to properly execute the turn and when the crossing approach was activated by train 1006, he attempted to back up and proceed straight to clear the trailer from the crossing. His efforts were unsuccessful and the trailer was struck by train 1006 as a result.