Federal Railroad Administration
Office of Safety
Headquarters Assigned
Accident Investigation Report
HQ-2007-46

CSX Transportation (CSX)
Watertown, New York
July 23, 2007

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report 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.

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

FRA FACTUAL RAILROAD ACCIDENT REPORT

FRA File # HQ-2007-46

1.Name of Railroad Operating Train #1: United States Army Trans. Corp. "F E M R" [USAT]	1a. Alphabetic Code: USAT	1b. Railroad Accident/Incident No.: 000034293
2.Name of Railroad Operating Train #2: N/A	2a. Alphabetic Code: N/A	2b. Railroad Accident/Incident No.: N/A
3.Name of Railroad Operating Train #3: N/A	3a. Alphabetic Code: N/A	3b. Railroad Accident/Incident No.: N/A
4.Name of Railroad Responsible for Track Maintenance: CSX Transportation [CSX]	4a. Alphabetic Code: CSX	4b. Railroad Accident/Incident No.: 000034293
5. U.S. DOT_AAR Grade Crossing Identification Number:	6. Date of Accident/Incident: Month 07 | Day 23 | Year 2007	7. Time of Accident/Incident: 08:55:00 ☑ AM ☐ PM

8. Type of Accident/Indicent (single entry in code box): 1. Derailment; 2. Head on collision; 3. Rear end collision; 4. Side collision; 5. Raking collision; 6. Broken Train collision; 7. Hwy-rail crossing; 8. RR grade crossing; 9. Obstruction; 10. Explosion-detonation; 11. Fire/violent rupture; 12. Other impacts; 13. Other (describe in narrative) — Code: 12

9. Cars Carrying HAZMAT	10. HAZMAT Cars Damaged/Derailed	11. Cars Releasing HAZMAT	12. People Evacuated	13. Division
2	2	0	999	Albany

14. Nearest City/Town	15. Milepost (to nearest tenth)	16. State Abbr	Code	17. County
Watertown	QM 73.9	N/A	NY	JEFFERSON

18. Temperature (F) (specify if minus)	19. Visibility (single entry) 1. Dawn 2. Day 3.Dusk 4.Dark — Code	20. Weather (single entry) 1. Clear 2. Cloudy 3. Rain 4. Fog 5.Sleet 6.Snow — Code	21. Type of Track 1. Main 2. Yard 3. Siding 4. Industry — Code
72 F	2	1	1

22. Track Name/Number	23. FRA Track Class (1-9, X) — Code	24. Annual Track Density (gross tons in millions)	25. Time Table Direction 1. North 2. South 3. East 4. — Code
St. Lawrence Main	2	7.8	2

OPERATING TRAIN #1

26. Type of Equipment Consist (single entry) 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/switching 8. Light loco(s). 9. Maint./inspect.car	A. Spec. MoW Equip. — Code	27. Was Equipment Attended? 1. Yes 2. No — Code	28. Train Number/Symbol
	6	2	N/A

29. Speed (recorded speed, if available) R - Recorded E - Estimated	Code	31. Method(s) of Operation (enter code(s) that apply)	31a. Remotely Controlled Locomotive?
40 MPH	E	a. ATCS; b. Auto train control; c. Auto train stop; d. Cab; e. Traffic; f. Interlocking; g. Automatic block; h. Current of traffic; i. Time table/train orders; j.Track warrant control; k. Direct traffic control; l.Yard limits; m.Special instructions; n. Other than main track; o. Positive train control; p. Other (Specify in narrative)	0 = Not a remotely controlled; 1 = Remote control portable; 2 = Remote control tower; 3 = Remote control transmitter - more than one remote control transmitter
30. Trailing Tons (gross tonnage, excluding power units): N/A		Code(s): j | N/A | N/A | N/A | N/A	0

32. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded (yes/no)
(1) First involved (derailed, struck, etc)	DODX48914	1	yes
(2) Causing (if mechanical cause reported)	0	0	N/A

33. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
N/A	N/A

34. Was this consist transporting passengers? (Y/N): N

35. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote
(1) Total in Train	0	0	0	0	0
(2) Total Derailed	0	0	0	0	0

36. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	2	0	0	0	0
(2) Total Derailed	2	0	0	0	0

37. Equipment Damage This Consist	38. Track, Signal, Way, & Structure Damage	39. Primary Cause Code	40. Contributing Cause Code
336627	10000	H022	M501

Number of Crew Members: 41. Engineer/ Operators	42. Firemen	43. Conductors	44. Brakemen	Length of Time on Duty: 45. Engineer/Operator	46. Conductor
0	0	0	0	Hrs 0 Mi 0	Hrs 0 Mi 0

Casualties to:	47. Railroad Employees	48. Train Passengers	49. Other
Fatal	0	0	0
Nonfatal	1	0	0

50. EOT Device? 1. Yes 2. No — N/A

51. Was EOT Device Properly Armed? 1. Yes 2. No — N/A

52. Caboose Occupied by Crew? 1. Yes 2. No — N/A

OPERATING TRAIN #2

53. Type of Equipment Consist (single entry) 1. Freight train 2. Passenger train 3. Commuter train 4. Work train 5. Single car 6. Cut of cars 7. Yard/switching 8. Light loco(s). 9. Maint./inspect.car	A. Spec. MoW Equip. — Code	54. Was Equipment Attended? 1. Yes 2. No — Code	55. Train Number/Symbol
	N/A	N/A	N/A

56. Speed (recorded speed, if available) R - Recorded E - Estimated	Code	58. Method(s) of Operation (enter code(s) that apply)	58a. Remotely Controlled Locomotive?
0 MPH	N/A	a. ATCS; b. Auto train control; g. Automatic block; h. Current of traffic; m.Special instructions; n. Other than main track	0 = Not a remotely controlled; 1 = Remote control portable

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57. Trailing Tons (gross tonnage, excluding power units): N/A

c. Auto train stop; d. Cab; e. Traffic; f. Interlocking; i. Time table/train orders; j.Track warrant control; k. Direct traffic control; l.Yard limits; o. Positive train control; p. Other (Specify in narrative) Code(s): N/A N/A N/A N/A N/A

2 = Remote control tower
3 = Remote control transmitter - more than one remote control transmitter: N/A

59. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded (yes/no)
(1) First involved (derailed, struck, etc)	0	0	N/A
(2) Causing (if mechanical cause reported)	0	0	N/A

60. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
N/A	N/A

61. Was this consist transporting passengers? (Y/N): N/A

62. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote
(1) Total in Train	0	0	0	0	0
(2) Total Derailed	0	0	0	0	0

63. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	0	0	0	0	0
(2) Total Derailed	0	0	0	0	0

64. Equipment Damage This Consist: 0

65. Track, Signal, Way, & Structure Damage: 0

66. Primary Cause Code: N/A

67. Contributing Cause Code: N/A

Number of Crew Members

68. Engineer/ Operators	69. Firemen	70. Conductors	71. Brakemen
0	0	0	0

Length of Time on Duty

72. Engineer/Operator: Hrs 0 Mi 0

73. Conductor: Hrs 0 Mi 0

Casualties to:	74. Railroad Employees	75. Train Passengers	76. Other
Fatal	0	0	0
Nonfatal	0	0	0

77. EOT Device? 1. Yes 2. No: N/A

78. Was EOT Device Properly Armed? 1. Yes 2. No: N/A

79. Caboose Occupied by Crew? 1. Yes 2. No: N/A

OPERATING TRAIN #3

80. Type of Equipment Consist (single entry): 1. Freight train; 2. Passenger train; 3. Commuter train; 4. Work train; 5. Single car; 6. Cut of cars; 7. Yard/switching; 8. Light loco(s); 9. Maint./inspect.car; A. Spec. MoW Equip. Code: N/A

81. Was Equipment Attended? 1. Yes 2. No Code: N/A

82. Train Number/Symbol: N/A

83. Speed (recorded speed, if available) Code: R - Recorded; E - Estimated: N/A MPH N/A

84. Trailing Tons (gross tonnage, excluding power units): N/A

85. Method(s) of Operation (enter code(s) that apply): a. ATCS; b. Auto train control; c. Auto train stop; d. Cab; e. Traffic; f. Interlocking; g. Automatic block; h. Current of traffic; i. Time table/train orders; j.Track warrant control; k. Direct traffic control; l.Yard limits; m.Special instructions; n. Other than main track; o. Positive train control; p. Other (Specify in narrative) Code(s): N/A N/A N/A N/A N/A

85a. Remotely Controlled Locomotive?
0 = Not a remotely controlled
1 = Remote control portable
2 = Remote control tower
3 = Remote control transmitter - more than one remote control transmitter: N/A

86. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded (yes/no)
(1) First involved (derailed, struck, etc)	N/A	N/A	N/A
(2) Causing (if mechanical cause reported)	N/A	N/A	N/A

87. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box.

Alcohol	Drugs
N/A	N/A

88. Was this consist transporting passengers? (Y/N): N/A

89. Locomotive Units	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End c. Remote
(1) Total in Train	N/A	N/A	N/A	N/A	N/A
(2) Total Derailed	N/A	N/A	N/A	N/A	N/A

90. Cars	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Equipment Consist	N/A	N/A	N/A	N/A	N/A
(2) Total Derailed	N/A	N/A	N/A	N/A	N/A

91. Equipment Damage This Consist: N/A

92. Track, Signal, Way, & Structure Damage: N/A

93. Primary Cause Code: N/A

94. Contributing Cause Code: N/A

Number of Crew Members

95. Engineer/ Operators	96. Firemen	97. Conductors	98. Brakemen
N/A	N/A	N/A	N/A

Length of Time on Duty

99. Engineer/Operator: Hrs N/A Mi N/A

100. Conductor: Hrs N/A Mi N/A

Casualties to:	101. Railroad Employees	102. Train	103. Other
Fatal	N/A	N/A	N/A
Nonfatal	N/A	N/A	N/A

104. EOT 1. Yes 2. No: N/A

105. Was EOT Device Properly 1. Yes 2. No: N/A

106. Caboose Occupied by Crew? 1. Yes 2. No: N/A

Highway User Involved

107. A. Auto; B. Truck; C. Truck-Trailer.; D. Pick-Up Truck; E. Van; F. Bus; G. School Bus; H. Motorcycle; J. Other Motor Vehicle; K. Pedestrian; M. Other (spec. in narrative) Code: N/A

108. Vehicle Speed (est. MPH at impact): N/A

109. geographical) 1.North 2.South 3.East 4.West Code: N/A

Rail Equipment Involved

111. Equipment 1.Train(units pulling); 2.Train(units pushing); 3.Train (standing); 4.Car(s) (moving); 5.Car(s) (standing); 6.Light Loco(s) (moving); 7.Light(s) (standing); 8.Other (specify in narrative) Code: N/A

112. Position of Car Unit in: N/A

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110. Position 1.Stalled on Crossing 2.Stopped on Crossing 3.Moving Over Crossing 4. Trapped	Code N/A	113. Circumstance 1. Rail Equipment Struck Highway User 2. Rail Equipment Struck by Highway User	Code N/A
114a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials? 1. Highway User 2. Rail Equipment 3. Both 4. Neither	Code N/A	114b. Was there a hazardous materials release 1. Highway User 2. Rail Equipment 3. Both 4. Neither	Code N/A
114c. State here the name and quantity of the hazardous materials released, if any. N/A			

115. Type Crossing Warning 1.Gates 2.Cantilever FLS 3.Standard FLS 4.Wig Wags 5.Hwy. traffic signals 6.Audible 7.Crossbucks 8.Stop signs 9.Watchman 10.Flagged by crew 11.Other (spec. in narr.) 12.None	116. Signaled Crossing (See instructions for codes)	Code	117. Whistle 1. Yes 2. No 3. Unknown	Code
Code(s) N/A N/A N/A N/A N/A N/A N/A		N/A		N/A

118. Location of Warning 1. Both Sides 2. Side of Vehicle Approach 3. Opposite Side of Vehicle Approach	Code N/A	119. Crossing Warning with Highway Signals 1. Yes 2. No 3. Unknown	Code N/A	120. Crossing Illuminated by Street Lights or Special Lights 1. Yes 2. No 3. Unknown	Code N/A

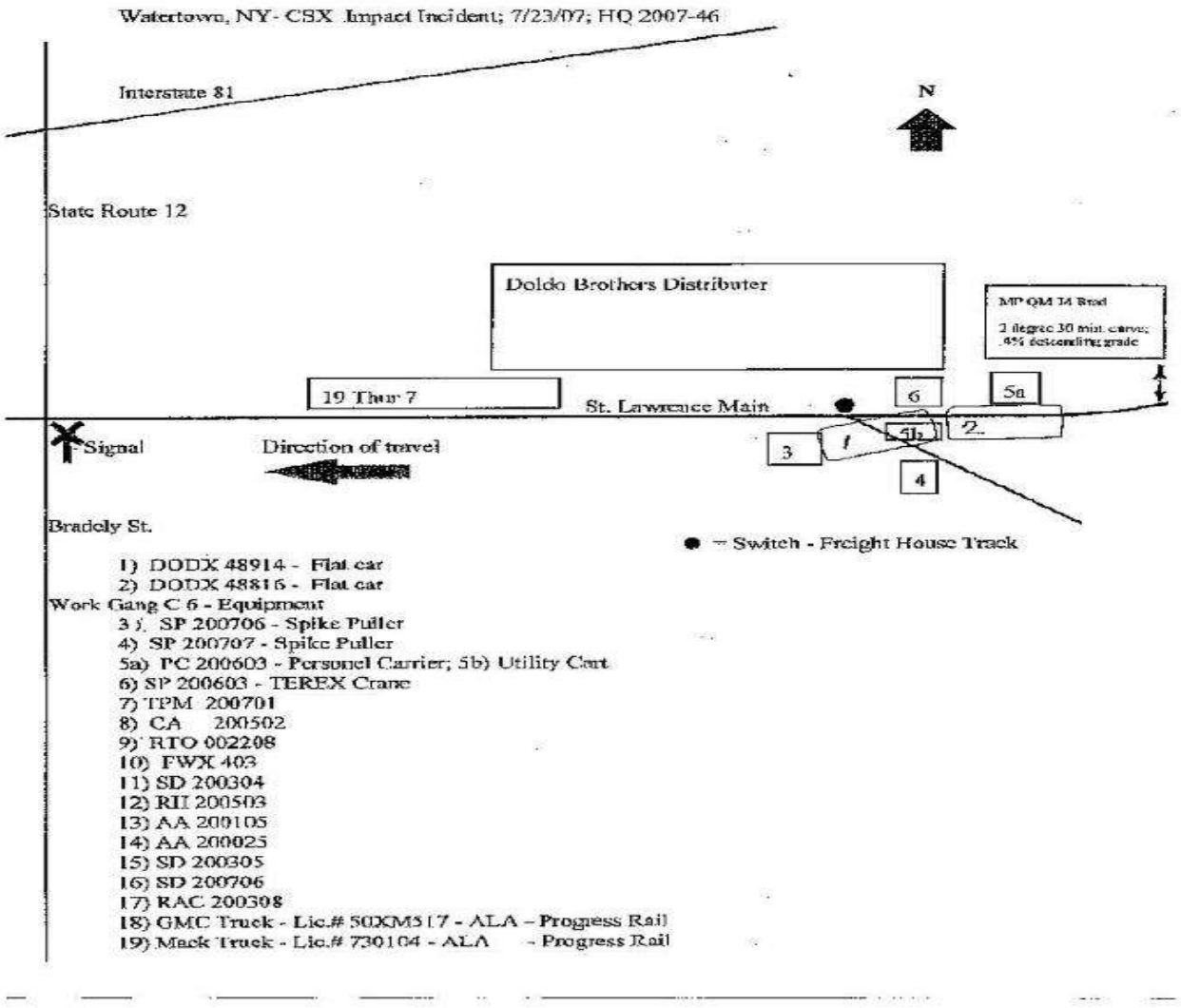
121. Age N/A	122. Driver's Gender 1. Male 2. Female	Code N/A	123. Driver Drove Behind or in Front of and Struck or was Struck by Second Train 1. Yes 2. No 3. Unknown	Code N/A	124. Driver 1. Drove around or thru the Gate 2. Stopped and then Proceeded 3. Did not Stop 4. Stopped on Crossing 5. Other (specify in narrative)	Code N/A

125. Driver Passed Highway Vehicle 1. Yes 2. No 3. Unknown	Code N/A	126. View of Track Obscured by (primary obstruction) 1. Permanent Structure 2. Standing Railroad Equipment 3. Passing Train 4. Topography 5. Vegetation 6. Highway Vehicle 7. Other (specify in narrative) 8. Not obstructed	Code N/A

Casualties to:	Killed	Injured	127. Driver 1. Killed 2.Injured 3. Uninjured	Code N/A	128. Was Driver in the Vehicle? 1. Yes 2. No	Code N/A
129. Highway-Rail Crossing Users	N/A	N/A	130. Highway Vehicle Property Damage (est. dollar damage)	N/A	131. Total Number of Highway-Rail Crossing Users (include driver)	N/A

132. Locomotive Auxiliary Lights? 1. Yes 2. No	Code N/A	133. Locomotive Auxiliary Lights Operational? 1. Yes 2. No	Code N/A
134. Locomotive Headlight Illuminated? 1. Yes 2. No	Code N/A	135. Locomotive Audible Warning Sounded? 1. Yes 2. No	Code N/A

136. DRAW A SKETCH OF ACCIDENT AREA INCLUDING ALL TRACKS, SIGNALS, SWITCHES, STRUCTURES, OBJECTS, ETC., INVOLVED.



137. SYNOPSIS OF THE ACCIDENT

On Monday, July 23, 2007, at approximately 8:55 a.m, two 90' DODX flat cars, loaded with containers (COFC) ran away from the US Army facility at Fort Drum and impacted with CSX Maintenance of Way (MOW) equipment in Watertown, NY. The impact resulted in derailing the two flat cars, and damaging four of the19 mechanized pieces of equipment being used by CSX Rail Gang C-6. The impact rupurted the diesel fuel tank on Spike Puller, SP 200706, which ignited and had to be extinguished by the Watertown Fire Department. The New York State Police evacuated a one-half mile area around the scene, including a section of Interstate 81, for a period of two hours. The evacuation was a result of the fire caused by the impact and also because some of the containers loaded on the flat cars were placarded, indicating they contained hazardous materials. The Rail Gang was alerted to the runaway cars just minutes before the impact. There were no injuries due to the impact, however, one CSX employee sprained his ankle and broke a bone in his foot while running from the site prior to the impact. The fire was extinguished and the containers were found to contain only small amounts of hazardous material resulting in the NYS Police to end the evacuation. The cars were re-railed and the track was restored to service by 11:40 p.m. on July 23, 2007.

The weather conditions at the time of the collision were daylight, clear and the temperature was 72°F.

The railroad timetable direction of travel was south and the geographic direction of travel was south-west, all directions referenced in the report are timetable directions.

The rail at this location is Class 2, and there is in succession, a 2-degree 30-minute, left curves followed by a tangent of 200 feet to the point of the impact and tangent 1,500 feet beyond. There is a 0.4-percent descending grade to the south at this location.

FRA concluded with reasonable certainty that the runaway cars and following impact were caused by two flat cars that had been loaded on the Fort Drum Jersey (Interchange) track without being secured with handbrakes or wheel chocks. The initial movement of the cars was most likely the result of undesired movement created while loading containers onto the flat cars while located on a 0.3-percent descending grade. The material handlers stated they did not apply wheel chocks or handbrakes on either car as they had not received instructions, written or verbal on how to secure rail equipment and didn't believe it was their job to secure rail equipment.

138. NARRATIVE

Circumstances Prior to the Accident:

On Monday, July 23, 2007, at Fort Drum Army facility near Watertown, NY, Material Handlers, employed by the Directorate of Logistics (DOL), were loading containers onto DODX 48914 and DODX 48816, flat cars for shipment to Iraq. The cars were located on the container loading track, identified as Jersey (Interchange) Track, and were approximately 300 feet from a road crossing. Material handlers were using a Rough Terrain Container Handler (RTCH) to load containers into position onto the flat cars. After locking the last container into position, and backing the RTCH away from the flat cars, the Material Handler operating the RTCH noticed the flat cars starting to roll away. The Material Handler/operator immediately called on the walkie talkie to the ground person to alert him of the run away cars. The Material Handler/ RTCH operator, stated the time was 8:45 a.m. when the cars started to roll away. After calling the ground man he called his Supervisor to report the incident. The immediate Supervisor notified the DOL Supervisory Specialist and Fort Drum Police. The Fort Drum Police notified the New York State (NYS) Police.

The ground person stated he was about 100 feet away from the cars when they started to roll away and he ran to the cars and attempted to put the handbrake on but the cars were rolling too fast so he stopped and ran back and got his truck. Once he was in the truck he started to chase the cars and to warn people at the Highway-Rail crossings that cars had run away. The ground person stated he was blowing his horn and blinking his lights and had to drive at 60 mph to get to the crossings ahead of the cars and still was only able to make it to three of the seven crossings as the cars were going too fast to keep up with. The two flat cars rolled through Fort Drum for a distance of approximately 3.8 miles and traversed a derail, prior to running through a trailing point switch connecting the Fort Drum Main track to the CSX, St. Lawrence Main Track.

Two employees from the Fort Drum Department of Public Works (DPW) were working on the Fort Drum Main Track between Sanford Road and the area where a derail is located near the CSX St. Lawrence Single Main Track when they reportedly heard the runaway cars and cleared the track in time to see the cars passing by them. The DPW employee then ran over to where CSX Maintenance of Way (MOW) employees were in a truck, parked near the St. Lawrence Main Track at CSX MP 78.5, and yelled to them to alert CSX on their radio. A CSX employee immediately called on the radio to alert the Rail Gang, C-6, of the runaway cars. When the Rail Gang Foreman heard the Emergency Call on his radio, he ordered everyone away from the tracks to a nearby field. CSX Rail Gang C-6 had 19 pieces of equipment on and alongside the rail between MP QM 73.9 and Bradely Street Crossing with 44 employees working under Track Warrant authorization.

The Accident:

On Monday, July 23, 2007, at approximately 8:55 a.m. two loaded flat cars, DODX 48914 and DODX 48816, had rolled away from the Fort Drum loading track and traveled 3.8 miles across Fort Drum and 4.7 miles, in a southerly direction, on the St. Lawrence Main Track to MP QM 73.9, located in Watertown, NY. The cars traveled at an estimated speed of 40 mph before impacting with CSX Rail Gang, C-6, equipment. DODX 48914 was the first flat car to impact, striking Spike Puller, SP 200706, causing the diesel fuel tank of the Spike Puller to rupture and ignite. The Spike Puller became wedged under the

lead, south, truck of DODX 48914, causing it to derail and stopping 188 feet from point of contact. The impact also caused a second Spike Puller, SP 200707, to be thrown from the track and across an adjacent track coming to rest on the east side of the Freight House Track. A Personel Carrier with a cart attached, which contained two 100 pound Liquid Propane Gas (LPG) tanks were thrown to the west side of the track. The LPG tanks received minor damage and were not part of the fire. A Terex Crane, SP 200603, was located on the west side of the Main track and was struck by the DODX 48914. No other equipment was involved and no one was injured in the impact, however, one MOW employee sprained his ankle and broke a bone in his foot while running from the site prior to the impact.

As a result of the fire and also as a precaution, due to the placarded containers on the flat cars, the New York State Police evacuated a one-half mile area around the scene and closed a section of Interstate 81. There were reportedly 999 people evacuated from the area for a period of two hours

There was a small amount of Hazardous Material located in containers: USAU 002787 & USAU 002777 placarded as: Explosive's 1.4 and contained blasting caps/detonator and small arms ammunition. There were 19 containers loaded on the flat cars and seven had placards affixed: USAU 018842, USAU 018868, and USAU 002949, Class 2, Non-Flammable Gas and 5.1 Oxidizer (medical grade oxygen cylinders); SVWU 287177, Class 2 Flammable Gas; and TEXU 365525, Class 3 Flammable Liquid. The containers were inspected by the U.S. Coast Guard for blocking and bracing and secured with USCG seals and there was no leaks or release of any product from the containers.

The Rail at this location is Class 2, and there is in succession, a 2-degree, 30- minute, left curve followed by a tangent of 200 feet to the point of the impact and tangent for 1,500 feet beyond. There is a 0.4-percent descending grade to the south at this location.

The weather conditions at the time of the collision were daylight, clear and the temperature was 72° F.

The railroad timetable direction of travel was south and the geographic direction of travel was south-west, all directions referenced to in this report are timetable directions.

Post Accident/Incident Investigation

On Monday, July 23, 2007, several hours following the impact, interviews were conducted at Fort Drum by the FRA and witnessed by an NYS-DOT Accident Investigator. Those interviewed included the DOL employees that had been loading containers prior to the runaway and are classified as Material Handlers. The Material Handlers interviewed were further identified as an RTCH operator, ground person and their immediate supervisor. All stated they did not apply any handbrakes on the flat cars or use any wheel chocks to secure the rail equipment. The material handlers stated they did not apply wheel chocks or handbrakes on either car as they had not received any verbal or written instructions on how to secure rail equipment and didn't believe it was their job to secure rail equipment.

A Supervisory Specialist for DOL was also interviewed by FRA and he stated that the Material Handlers working at the container loading site that day lacked training. He also stated the more qualified material handlers were not available that day and he had been too busy to instruct the ones that were working there.

The DOL utilizes an instruction manual identified as TEA Pamphlet 5-19, "Tiedown for Rail Movements." This manual covers the minimum standards to be followed when loading equipment on rail cars. It also refers the reader to check with AAR and Railroad rules for additional information. It is stated in the manual, on page 22, para. B.2: "Chock flat car wheels to prevent movement while loading." This procedure was not followed and the DOL employees were unaware of this rule when interviewed by the FRA. The FRA conducted an inspection of the Jersey (Interchange) Track at the same time as NYS-DOT was conducting their investigation. At the loading track area there were tire marks in the dirt from the RTCH and rust spots on the rail indicating where the runaway cars had been spotted and loaded. The track at this location is tangent for 200 feet with a 0.3-percent descending grade on either side. The rust spots on the rail indicated that the cars had been at this for at least several days or longer. CSX records show the cars had been delivered to Fort Drum on April 26, 2007 but the records do not show exactly where they were placed. The Material Handlers stated the flat cars were spotted at this location on the Jersey track when they started work that day and was the spot where they loaded containers onto the cars. The Material Handler/Operator stated that after he placed the last container on the car and started to back up he noticed the cars starting to roll away and attempts to stop the cars failed.

During this investigation FRA observed a derail located 2,250 feet from where the cars had been loaded and it was found in the off position. The derail model is, Hayes, double edge, size six, slider type and is capable of derailing cars at slower speeds. The derail is located on a Wye Track where the track is a 1.4-percent descending grade. It is possible that if this derail had been in the on position it may have prevented the cars from traveling any further.

A second derail is located 18,017 feet from the first derail and approximately 200 feet prior to the CSX, trailing point switch, leading onto the St. Lawrence Single Main Track at MP QM 78.5. The second derail is also a Hayes model HBP, Series 6420, double edge, slider type derail. The rail at this location is Class 1 and there is a 7-degree, left curve preceded by a short section of tangent rail to the derail followed by a left curve and an immediate right curve leading into the CSX, trailing point switch. The FRA suspects the lateral forces created by the high speed of the cars in the 7-degree curve forced the wheels and the weight of the flat cars to the outside rail and thereby allowing the wheels on the inside rail to traverse the derail without derailing the cars.

The first car to make contact with the MOW equipment was DODX 48914. This flat car was built in February 1977 and was equipped with: 33 inch, curved plate, heat treated wheels; Ride Control trucks; constant contact side bearings; ABDW air brakes with a body mounted piston and last tested on December 31, 2002. The car was equipped with a group M handbrake assembly, which was found to be in the released position. FRA testing concluded the handbrake was functioning as intended post accident. The second car involved was: DODX 48816, flat car, built October 1979 and equipped with: 33 inch, curved plate, heat treated wheels; stabilized trucks; constant contact side bearings; ABDW air brakes with a body mounted piston, last tested on September 19, 2003. The car also was equipped with a Group M handbrake assembly. FRA testing concluded it was operating as intended but was damaged during the re-railing process.

Analysis:

The FRA conducted a complete investigation which included conducting interviews, collection and examination of CSX reports, Police and Fire Department Reports; inspection of equipment and maintenance records. The investigation determined the following:

- **Two unsecured flat cars were loaded with containers on the Fort Drum Jersey (Interchange) Track in an area where there is a 0.3-percent descending grade.**
- **The Material Handlers who loaded the cars were not trained on how to secure rail cars.**
- **A derail on the WYE track, near the loading track was not being utilized.**
- **A derail on the Fort Drum Main Track near the switch CSX St. Lawrence Main Track was incapable of derailing equipment moving had a high rate of speed.**
- **Equipment inspection determined that the handbrakes on the flat cars were in the released position.**

Post Incident Action Taken by FRA:

FRA recommendations and follow up inspection and assessment has concluded that the DOL has started training the Material Handlers and Supervisors on rail car securement and are co-ordinating with CSX for additional training.

On site inspections by the FRA have concluded the rail cars are being properly secured with the use of handbrakes and wheel chocks. The FRA received a copy of the proposed DOL Standard Operating Practices, which includes details on the operating practices and responsibilities for rail car securement.

FRA recommendation to CSX to co-ordinate the use of the WYE track derail with the DOL and Department of Public Works (DPW) has been implemented with a new Split Switch Derail being kept in the ON position when there are no train movements and is secured with a lock.

FRA has not assessed any violations in this incident. Those immediately involved are Fort Drum, DOL, non railroad employees and through their own admission lacked proper training. The non railroad and railroad employees could have used the WYE derail, which may have prevented the cars from leaving Fort Drum, but the use of that derail was not required.

Post Incident Action Taken by Fort Drum DOL and DPW

As a result of the runaway/impact incident and recommendations made by the FRA, DOL has verbally instructed the Material Handlers on proper rail car securement and making available to them instructions on proper rail car securement as detailed in TEA Pamphlet 55-19, "Tiedown Handbook for Rail Movements." The DOL has also written new Rail Load Standing Operating Procedure (SOP) which details operating practices and responsibilities for rail car securement. The DOL has also co-ordinated with CSX to hold training classes for the Material Handlers and Supervisors.

The DPW has replaced the Hayes Slider Derail at the WYE track location with the more effective Split Switch Derail. The DPW has also installed a Split Switch Derail in the Rabbit Run Yard which is located north of the fence gates that span the Fort Drum Main Track and approximately 1500' before the highway-rail grade crossing at state Route 342.

Post Incident Action Taken by CSX:

As a result of the runaway/impact incident and recommendations made by the FRA, CSX has responded by co-ordinating with the DPW by locking the WYE track derail in the on position. Movements through the WYE track will be co-ordinated with CSX, DPW and DOL.

CSX has also replaced the Hayes Slider Derail, located on the Fort Drum Main near the switch that connects the Fort Drum Main to the CSX, St. Lawrence Main Track, with a more effective Split Switch Derail.

CSX has also co-ordinated with the DOL to prepare a training class on proper freight car securement for the DOL Material Handlers and Supervisors. This training class is planned to be held in October 2007.

Conclusion:

A contributing factor was the failure to have a derail applied, when a stationary one was available and located 2,550 feet from the loading area. The failure to use the derail located near the loading area and at a point where the rail is at a 1. 4-percent descending grade, resulted in the flat cars' ability to increase in speed to a point where they crossed over a derail which was located approximately 200 feet from the switch connecting the Fort Drum Track to the CSX, St. Lawrence Main Track.

FRA's investigation concluded with reasonable certainty that the runaway cars and following impact were caused by non securement of the two flat cars that had been loaded on the Fort Drum Jersey (Interchange) track. The movement of the cars was most likely caused by the machine loading the containers. The material handlers admitted they did not apply wheel chocks or handbrakes on either car as they had not received instructions, written or verbal on how to secure rail equipment and didn't believe it was their job to secure rail equipment.