NATIONAL TRANSPORTATION SAFETY BOARD

Office of Railroad, Pipeline and Hazardous Materials Investigations
Washington, DC

INTERIM TECHNICAL REVIEW FACTUAL REPORT[1]

DCA-15-FR-003

Amtrak Train No. 280 Collision with an Engineering Employee at Milepost 100.9 on Amtrak's Hudson Line

Clermont, New York
October 29, 2014

Technical Review Factual Report Prepared by: Date: February 22, 2015
R. A. Hipskind,
Investigator-in-Charge

1 Due to the sensitive nature of the video reviewed in this accident, NTSB protocols provide that the video description and analysis will be added when the report is adopted by the Board.

Accident

NTSB Accident Number:	DCA 15 FR 003
Date of Accident:	October 29, 2014
Time of Accident:	10:56 a.m. (EDT)
Type of Train and No:	Southbound (SB) Train 280
Transit Owner:	National Railroad Passenger Corporation (Amtrak)
Transit Operator:	Amtrak
Crew Members:	1 Engineer, 1 Qualifying Engineer, 1 Conductor, 1 Asst. Cond.
Location of Accident:	Clermont, NY

Synopsis

On October 29, 2014, at 10:56 a.m. eastern daylight time (EDT), National Railroad Passenger Corporation (Amtrak) southbound train 280, consisting of one locomotive and five passenger cars, operating on main track 1 struck and fatally injured an Amtrak maintenance employee (a signal helper), who was providing protection for a contractor working near milepost 100.9 on Amtrak's Hudson Line. The accident occurred near Clermont, New York in Columbia County.

At the time of the accident, there were reportedly 128 passengers on board. The Amtrak train crew consisted of an engineer occupying the engineer's seat in the locomotive (right side of locomotive), a qualifying engineer seated on the left side of the locomotive cab, a conductor and an assistant conductor attending the passenger cars. No one on board the train was injured. Post accident Amtrak determined there were no equipment or track structure damages. The weather at the time of the accident was overcast skies, intermittent precipitation and the temperature was 58° F.

Parties to the investigation include the Federal Railroad Administration (FRA), Amtrak (ATK), Brotherhood of Locomotive Engineers and Trainmen (BLET), Brotherhood of Railroad Signalmen (BRS), New York State DOT and Columbia County Sheriff's Office.

Circumstances Prior to the Accident:

Amtrak Train 280:

On October 29, 2014, Amtrak operated southbound train No. 280 on Amtrak's Hudson Line. The train consist included one locomotive pulling five passenger cars. The train originated at Niagara Falls, NY and was destined for Penn Station, NY. The crew reported for duty at 9:06 a.m. at Albany, NY and departed about 10:20 a.m. They had been on duty about 1 hour and 50 minutes when the accident occurred. In the area of the accident, Amtrak maintains and operates over two main tracks, designated as No. 1 and No. 2. The authorized timetable operating speed for both main tracks between milepost 102.3 and 93.1 is 90 mph. A preliminary review of the event recorder data indicated that train 280 was operating at 83.6 mph just prior to the engineer placing the train into emergency braking.

Figure 1. A ground level view looking south at main track 1 at the curve north of accident site. The red circle indicates location of employees at 100.9[2].

2 This photo graph was taken by investigators who were determining the likely sight distance and visibility of a person standing on or near the track where the concrete box was located.

Amtrak Maintenance Employee:

On October 29, 2014, the Amtrak signal helper reported to work at Hudson, NY at 06:00 a.m. According to an interview with the employee-in-charge (EIC) of the work forces for the area, he said that he conducted a job briefing with about 25 or 26 other employees that morning; however, the signal helper was not present during that job briefing. The EIC later asked that another employee meet with her and conduct a job briefing with her and provide to her the same information as was presented to the others. As part of the acknowledgement that she attended a job briefing with the designated employee during her follow-up job briefing, she signed the same document as the previous employees had signed after attending and receiving the original job briefing.

Her first assignment on the day of the incident was to transport the work train crew from their lodging to the train. By performing that function, she was not able to attend the original job briefing. Her second assignment was to provide on-track safety for a contractor working near Clermont, NY, that required her to request foul time from the dispatcher, as necessary. A review of her foul time documentation found on-scene indicated that she called (via radio) the dispatcher on two separate occasions that morning to secure foul time from milepost CP 103 to CP 94 on main track 1. Records indicated that she called the dispatcher to relinquish her foul time for the last time for main track 1 at 10:14 a.m.

Accident

As train 280 traveled south on main track 1, the engineer sounded the horn (whistle) for a private crossing location at milepost 102.0. The curve located south of the private crossing was listed as 1 degree in Amtrak's track profile document. As the train was exiting that curve in a

location where the engineer could preview the straight track ahead of his location, the engineer stated that he observed two orange colored objects off in the distance south of the curve on straight track. He immediately began sounding the horn to alert the employees ahead. Investigators learned from interviews that the engineer was observing the work location where a contractor was working to the left of the track (or landside, away from the river) at milepost 100.9. (See Appendix A). The employee providing protection was on main track 1. In a matter of a couple of seconds after the initial sounding of the train's horn, the engineer was able to discern that one employee was walking between the rails on main track 1, the other employee was located outside of the main working east of the ballast line. The engineer said he sounded the horn continuously and stated that he saw the one employee walking away (with her back to the train) lift the right arm and wave. The engineer continued to activate the horn and placed the train into emergency brake mode, but the person remained between the rails and was struck and killed. When the train came to a stop, the engineer radioed the dispatcher with an emergency notification and eventually emergency responders arrived.

About 25 minutes later, first responders arrived and located the employee, recovered the body. The deceased was transported to a local facility after the on-scene documentation was completed.

Amtrak arranged for a relief crew to take the train to Albany. Both engineers were relieved and were taken to a clinic for toxicological testing after they provided local responders with a written statement. The test results were negative for both engineers.

The passengers remained on-board until NTSB released the train set to take to a nearby station where the passengers detrained. No crewmembers or passengers were injured.

Resources and Emergency Response Summary:

The Columbia County Emergency 911 Center received an emergency call at 11:10 a.m. on October 29th, 2014, reporting a railroad accident involving a fatality, which occurred in the vicinity of railroad mile post 101 in the Town of Clermont, Columbia County, New York.

Emergency resources that were dispatched to this incident were as follows: Northern Dutchess Paramedics, Germantown and Clermont Fire Departments, Columbia County Sheriff's Office, and Columbia County Office of the Coroner. The ambulance was cancelled during its response by the Clermont Fire Chief. The Germantown Fire Department with a total of two trucks and 12 members. The Clermont Fire Department responded with two members. The Columbia County Sheriff's Office responded with 9 law enforcement members. Columbia County Coroner also responded to the scene. A helicopter from Life Net out of Albany had been put on stand-by but was not requested to respond and later cancelled.

The first arriving emergency responders were from Germantown and Clermont and a unit from the Columbia County Sheriff's Office, who all arrived at 11:25 a.m. The first emergency responder equipment, a fire truck from the Germantown Fire Department, arrived at 11:26 a.m.

Police held the employees on the accident train for about two hours. The employees completed post-accident toxicology testing. Both of the engineers were later interviewed.

Damages

Amtrak determined there was no damage and did not plan to report damage on their accident/incident reporting.

Summary of Autopsy

Injuries:

On October 30, 2014, an autopsy on the fatally injured Amtrak employee was conducted at the St. Peter's Hospital Mortuary in Albany, NY. The autopsy report generated by that facility, case# F14-127, stated that the woman was "struck by a train. Autopsy revealed extensive crushing injuries with fatal damage to several organ systems. The minimal bleeding from the many wounds suggests that death was instantaneous." Included in the report was a separate toxicological analytical report from the Federal Railroad Administration. The results were negative for illicit drugs and alcohol.

Mechanical and Equipment:

Investigators conducted a joint inspection of Amtrak train 280 at Amtrak's Rensselaer Maintenance Facility on October 30, 2014, in Rensselaer, NY. The train inventory of equipment consisted of one locomotive, ATK 700, and passenger cars ATK 82711, 82655, 82790 82639 and 48151. Investigators performed a full brake inspection including application and release of locomotive and cars; a Class 1 brake test including all pre-departure requirements; an inspection of all headlights and auxiliary (ditch lights), horn, bell worked as intended; no defects were noted. In addition, investigators performed an emergency brake application; no defects noted. Investigators noted the locomotive cab was clean and the windshield was free of defects or distortion.

Investigators reviewed and inspected the blue card, MAP 101 Locomotive Inspection, MAP 1173, the Daily Inspection; MAP 100, Daily Inspection form and Cab Signal Form; no exception taken to records inspection of periodic inspection reports.

Event Recorder Data and Download

The following are the results of investigator's review of the event recorder data:

- The train was operating at 83.6 mph entering the curve at 101.1
- An emergency brake application was initiated by the engineer
- The train decelerated to 72 when the train struck the employee.
- Whistle, lights, bell, horn and headlights functioning

Method of Operations

On this portion of the Hudson Line, including the location where the accident took place, NORAC Rule 261, ABS Rules, and Cab Signal System Rules were in effect. The train dispatcher controls train traffic at control points, and automatic block signals are located between control points which provide block condition information to inform engineers. Signal indications were also displayed in the locomotive cab. The signal system is equipped with automated train control to enforce compliance with signal indications.[3]

Railroad operations in the accident area are conducted on two main tracks signaled in both directions. The tracks run roughly north and south, and Amtrak designates this territory in the timetable as north-south.

Maximum track speed at the accident location was 90 mph. Signal data indicated that an automatic signal 101S displayed a clear (green) indication to operate at that speed.

3 This system will enforce a train air brake application if the train's speed is excess of what speed the signal system indicate for the train's operation.

Track Description

Amtrak's Hudson Line runs in a northerly direction from Penn Station in New York City to Albany, NY parallel to the east shore of the Hudson River. Amtrak trains operate over Metro North Railroad to CP 75 just north of Poughkeepsie where Amtrak control and maintenance of the line begins at MP 75.8. The milepost numbering increases in the northward direction with MP 0.0 at Metro North's Grand Central Station in New York City.

The Hudson Line consists of two main tracks. The tracks are numbered from east to west #1 and #2. The track centers in the area of the accident are approximately 30 feet[4]. Amtrak operates the main tracks in the vicinity of the accident as FRA Class 5 with a maximum authorized timetable operating speed of 90 mph for passenger trains and 50 mph for freight.

Approaching the accident site from the north the track has a level gradient. There is a 0.23 degree right hand curve southward from MP 101.5 to MP 101.0 with a super-elevation of 0.90 inches.

Both main tracks are constructed with continuous welded rail (CWR) fastened to wood crossties with cut track spikes. The ballast section is composed of clean crushed stone ballast with full cribs and shoulders throughout.

Approximately 30 trains over this area daily, with Amtrak operating 25 passenger trains and CSX operating 4 through freight trains and 1 local freight.

A post-accident visual examination of the track was conducted after the engineer had applied an emergency brake application. No track variances were detected.

4 The track centers were wider in the incident area due to two middle tracks being removed a number of years ago.

Personnel Information:

Signal Helper's (SH) Personnel Information

The signal helper was a 41 years old female. She was hired by Amtrak on September 3, 2013, and later qualified as watchman on May 15, 2014. She became qualified on NORAC Operating Rules[5] on August 14, 2014. The SH had held her current position since August 4, 2014. She had no record of injury.

The SH's last physical examination was on August 7, 2013, the record indicated that she had normal vision and hearing and noted, "Able to perform essential functions as listed." Her first observation was November 12, 2013, and she had a total of 30 observations since she was hired with no recorded incidences of non-compliance. Her last 1872 observation was on October 21, 2014 at Hudson, NY and she was in "compliance" with no written comments.

On-scene Interviews:

Synopsis of Interviews:

Investigators conducted eight interviews beginning on October 30, 2014, through to October 31, 2014, while on-scene. The following are a synopsis of the interviews.

Train 280 Locomotive Engineer (LE):

He stated that he operates train 280 three days a week. He stated that he was off Monday, October 27th, and operated the same assignment Tuesday, October 28th; that trip was uneventful. He indicated that it was raining light to moderate on October 29th and at the time of the incident. The engineer said train 280 waited for a northbound train (train 69) to pass at Hudson, NY, after

5 Amtrak requires employee to receive instruction and pass an annual operating rules test to maintain their qualifications for certain positions.

which train 280 crossed over from track 2 to track 1 and operated southward (the maximum authorized speed for passenger trains in this area is 90 MPH). He recalled that as the train came around a curve to the left, just north of milepost 101, he saw two florescent orange coats, one below the track (in the pit), and the other walking south in the gauge of track 1. He added, at that point, that he sounds the engine horn whenever he sees [apparel] "orange." He also stated that there were no employees at the curve with whistle boards [located north of the incident area]. As he got closer he sounded the engine horn "straight" [continuously] and applied the brake. The engineer said that the person in the gauge of the track raised their right hand but stayed in the gauge and never looked back as train 280 drew closer. The engineer applied the brakes in EMERGENCY and made the required emergency call over the radio. There was no immediate response from the Hudson Line train dispatcher so he made the same call again. The dispatcher responded to his call at that time. He stated that two employees were the first to show up after the train stopped. The crew was later relieved from duty at that location. The engineer was also asked if he noticed anything in the left hand of the employee before being struck, but he had no recollection.

Train 280 Qualifying Engineer (QE):

The QE said he was seated in the fireman's seat[6] in the cab of Amtrak locomotive 700, operating southward on main track No.1 at maximum authorized speed of 90 miles per hour. He stated that as we came around a left-hand curve, I heard the engineer sound the horn. He continued to sound the horn and then I heard him make a full service brake application. I saw two people in orange clothing. One was down and to the left off of the track; the other was walking in the gage. The QE said he watched the person in the gage and saw that there was an

6 This seat is on the left side of the locomotive.

orange hood pulled up over their head. He stated that he watched the person walking in the gage of the track for their head movement. He said he heard the engineer sound the horn continuously and place the train into emergency. Before the impact, he said "they're gone". When the train stopped the QE set the parking brake on the locomotive.

Foreman Interview

On October 30, 2014, the Foreman of gang ACS3 was interviewed in reference to a gang employee fatality which occurred the day before. The foreman said he had 1 year experience in his current capacity with a total of 9 years' experience as a signalman (2 years with Amtrak), all within the same territory. He stated that for the past 2-3 months he and the signal helper (the deceased) have interfaced in a similar manner. They were both assigned to work with contractors, providing protection duties, and the plow train operating on Amtrak's Hudson Line. Prior to working on this project they had worked together on a similar project at Ice House Road Crossing in Stuyvesant, NY.

He continued by saying that on this current project the SH was responsible for bringing the train crew over to the morning briefings. Typically the entire work group, approximately 25 individuals, would meet together around 6:00 a.m. The foreman would go over the job briefing and On-Track Safety Briefing with everyone. The foreman stated the main form of protection for the track occupied by the work train was established by taking the track out of service from Control Point (CP) to CP for the majority of the workday. The adjacent track would be protected through the use of foul time when needed. Foul time is typically taken from CP to CP. When asked why the working limits span such a large area the foreman stated two reasons: 1) the area covered by the work group can sometimes span miles, and this would allow them to work

without having any issue of going outside their working limits; and 2) the other reason was the foreman said it felt safer with the dispatcher being able to block the CP's or easily identifying the CP's as their limits.

He said that the days prior to the incident, he did not take exception to anything out of the ordinary other than the SH needed to leave early on Tuesday, October 28, 2014. The scope of work on the project was similar for the previous three weeks in that the train and the out of service protection were on main track 1.

On the day of the incident, October 29, 2014, the SH was not there to perform the regular task of bringing the train crew to the briefing. The foreman stated the briefing was communicated to the SH by another signal helper in the gang; however, all individuals signed the same Job Briefing and On-Track Safety Briefing. The one difference to the work that occurred on this day was that the train and out of service track was changed to main track 2. The foreman said this was a main topic of discussion during the briefings.

The SH's assigned task for the day was to escort and protect the signal cable splice contractor (SC) while the contractor spliced cable in a box located south of MP 101 (MP 100.95). The SH provided protection by establishing foul time with the dispatcher for track 1. The foreman stated that prior to letting any of the signal helpers take a foul time on their own, they had to demonstrate their proficiency while being directly observed. The foreman took no exception to the SH's proficiency in completing this task and felt comfortable with the SH's ability. The SH would communicate on the radio and confirm everyone is clear through the foreman prior to releasing foul time.

The foreman stated that the request for maintainers to be on the job to provide protection was not something that could be satisfied due to the lack of manpower. The foreman also stated there is a lack of signal skills[7] among the employees in the gang.

Job Briefing Signal Helper (JBSH):

The Amtrak signal employee (JBSH), who was performing duties as a signal helper, and worked within the same group as the employee involved in the accident, stated that he attended a job briefing conducted by the Employee in Charge (EIC) of the job site just north of the Tivoli Street crossing. The employee stated that he understood the contents of the morning job briefing and signed the job briefing form provided to him. The employee also noted that the employee who was involved in the accident was not present at the briefing.

He stated that at the conclusion of the job briefing, he was approached by the EIC and was asked to brief the employee who was involved in the accident due to her late arrival to the job briefing. He stated that he then conducted a job briefing with the employee involved in the accident and discussed the morning workload, as well as, the conditions on the job site. The employee stated that he made it a point to explain that main track 2 was going to be out of service this particular day, and that foul time would be needed on the main track 1 for the day's activities. He explained that the employee who he was briefing understood and acknowledged that the number main track 2 was out of service, and that employee he briefed had signed the job briefing form that morning.

7 Signal skills refers to the ability and qualifications of an employee to trouble shoot and repair wiring within signal cabinets and wayside equipment,, as well as, wayside signals and crossing protection.

Splicing Contractor: (SC)

The SC stated that he is a cable splicer who began work on the project in July of 2014. The SC stated that since July of 2014, he had been working off site testing cables. The SC stated that Tuesday, October 28, 2014, was the first day that he was working on the actual right of way site. The SC states that his primary duty was to splice cable connections in enclosures and secure them to be weather tight.

On the day of the incident, October 29, 2014, the SC said that he began his shift at approximately 6:30 a.m. by meeting at a predetermined staging area near the Tivoli crossing. The SC states that there were approximately twenty workers present at the staging area and an Amtrak employee gave a safety and job briefing. The SC also stated that his construction foreman also gave a job briefing that morning. The SC recalled that they had changed the "live track" to be the east track (main track 1), which was different from that of the previous day. He said that he understood that main track 2 was out-of-service.

After the briefing, the SC drove north along the right of way to the vicinity of the 101 mile marker. The SC met the signal helper (SH) on the west side of the right of way on the access road. The SC stated that at approximately 8:00 a.m., the SH gave him permission to cross the tracks to get to his work location, which was on the east side of the right of way. The SC began working at the splicing location and stated that the SH returned across the tracks and sat in her truck directly across from his work location. The SC stated the weather was not nice and that it had been raining.

The SC said that a couple hours later, the SH had walked over to his location as the weather had improved. The SC stated that the SH indicated to him that "she was bored and

wanted to stretch her legs and walk for a bit." The SC stated that the SH indicated that she would be close by. The SC stated that after their brief conversation, he last observed the SH walking away from his location in a northerly direction between the rails of the eastern track (main track 1).

The SC said that within thirty minutes of this conversation, a train travelling southbound on the eastern track (main track 1) went by. The SC stated that the train sounded different than others after it went by. This caused him to look up from his work and notice that the train had stopped and people were walking around by the train. The SC stated that he looked around and did not see the SH anywhere. The SC stated that he knew something was wrong at that point so he began to walk down the track towards the train. He stated that he first found a helmet along the tracks and then found the body of the SH a little further down along the east side of the track. The SC stated that shortly thereafter emergency responders arrived on the scene. The SC gave a brief written statement to a Columbia County Deputy Sheriff at the scene.

Amtrak Safety Officer (ASO):

The ASO said he began his railroad career as a trackman in 1984 and over the years accepted promotion to positions of increasing responsibility until obtaining his current position in 2000 where he is responsible for implementing foreman mentoring programs.

The ASO described Amtrak's training of newly hired employees. He indicated that Amtrak conducted a 10 day (2 weeks) orientation program in a classroom environment during which the employees receive information regarding their benefits, Amtrak's rules, Union affiliation and on-track safety procedures. One full day of this time period is devoted to training the employee on Roadway Worker Protection (RWP). This is followed by a short review period

the following day after which the employee is given a multiple choice test and is deemed RWP qualified if they receive a minimum score of 85%. Employees RWP qualified are permitted to work on or near the track under the direct supervision of another employee using the appropriate form of on track safety.

The ASO explained that RWP qualified employees can begin qualifying as a watchman after 70 days. In order to achieve certification as a watchman the employee must spend 3 days working alongside a qualified watchman and with their approval, and the approval of supervision, they are permitted to take a written test when they have completed 90 days on the job. Upon receiving a satisfactory score the employee is certified to perform the duties of a watchman.

The ASO described the training provided to employees fulfilling the duties of an Employee-In-Charge (EIC). He explained that a communication and signal (C&S) employee initially receives four days of training on Operating Rules in a classroom environment and upon receiving a satisfactory score on a written test they are NORAC "C' qualified (5 days in the classroom are required to prepare for the NORAC "B" test).

In addition, the employee must demonstrate that he/she knows the physical characteristics of the area he/she is qualifying to work in by passing a written test. When the employee has met both of these requirements they are qualified to fulfill the duties of an EIC and may provide on track safety protection for other employees. In order to maintain qualification as an EIC the employee is required to attend a four hour refresher course annually and pass a written test. The ASO further related that in order for an EIC to qualify as a C & S foreman they must demonstrate their capability to fulfill the duties of that position through a written test.

The ASO described Amtrak's efficiency testing program for ensuring compliance with rules relating to on-track safety. He explained that this was done through observing employees engaged in work on or near the track and recording compliance or noncompliance on a form 1872. He described these interactions as opportunities to mentor the employee and correct any behavior that was not in compliance by providing additional training.

The ASO was asked if it was permissible under the rules for an employee to walk down the middle of an out of service track for the purpose of delivering information to another employee at a predetermined location and he responded that it was[8].

Director of Capital Construction (DCC)

The DCC related that he has been in his position since 2010. He said that in his position he is responsible to organize and coordinate project requirements for funding grants that were provided by the New York State Department of Transportation to Amtrak. He stated that when Amtrak took control for the operation and maintenance responsibilities from CSX, Amtrak was expected to complete various projects. The projects required Amtrak to hire additional work force employees starting in 2013. In 2014, Amtrak hired 34 more employees in March. At the present time 67 employees of the total work force of 94 employees are dedicated for the completion of the projects by the end of 2016. The track department added 34 new employees of which two had prior railroad experience, eight bridge and building (B&B) employees were hired, but none of them had railroad experience and the signal(C&S) force was increased by 17;

8 Amtrak has a rule not to be in a live track without protection, but not a rule that specifically says not to walk in an out-of-service track. Amtrak's RWP procedures specify, "A roadway worker shall not foul a track except when necessary for the performance of duty." Rule 4127 of Amtrak's Maintenance of Way Safety Rules specifies that: When necessary to walk on track. A. Walk against current of traffic, unless: 1. The track is out of service and protected. 2. On a single or other track where there is no current of traffic.

however, nine of the 17 had no prior railroad experience.

Presently the projects are in various phases and due to the complexity of the projects sub-contractors, are being retained to design and manage the various phases. The coordination of track usage requirements between transportation department, contractors and Amtrak Forces is a six week process of pre-planning and commitments.

Currently, six of the 67 employees are working on the cable installation with an on-track cable plow (work train) on the Hudson Line. The scope of work calls for the cable to be installed east of main track 1; however, some locations present difficulties with completing the trench portion of the installation due to rock formations or other obstructions. To adjust for the various obstructions, the cable train is thus required to occupy main track 2 to continue the cable installation around the obstructions.

Typical Cable Plow

Projects listed below require roadway protection by Amtrak engineering employees for contractors, sub-contractors and other Amtrak forces. The State of New York has provided funding for many of the ongoing projects on the Hudson Line, those projects are as follows:

New York State High Speed Rail Improvement Projects Project Descriptions

Amtrak Hudson Line

- Eliminate open wire pole line.

  Replace with buried cable - CP 75 to Milepost 138.

- Albany Station - Milepost 138.0 to Milepost 143.0

  Install 4th main track, track changes, and related signal changes,

  passenger station platform improvement

- Install additional main track Milepost 144 to Milepost 161

  Included are track and signal upgrades and improvements.

- Estimated cost of upgrades outlined is $173 million funded by NYS DOT.

Post Accident Actions:

Amtrak advised investigators that they began communications with employees about the incident immediately and took the following actions:

- Communication from President and CEO to all employees about the incident on the Hudson Line on October 29th;
- Amtrak initiated a Safety Stand Down on October 30th across the system with an emphasis about on-track safety procedures;

- Supervisors and managers discussed Roadway Worker Protection with all engineering department personnel;
- Amtrak developed and distributed a Safety Alert on November 10th emphasizing on-track safety principles;
- Empire Division held RWP training (annual refresher camps) where senior division management personnel led lengthy discussions about on-track safety procedures;
- Amtrak's engineering department Safety Team issued its Weekly Safety Focus for November 17—23, 2014 (FY 15, #8) with the following displayed prominently about approved clothing for the head at the top the safety communication, "It is prohibited to wear anything under or over hard hats or on the body that compromise the peripheral vision of a Roadway Worker."
- Amtrak initiated the development of an individual briefing log. When implemented each employee will be required to fill out the form as they receive their briefing from the Employee-in-charge. Amtrak believes this will increase employee participation and individual attention during the briefing, and act as a reference form for the employee on the protection being provided them.

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Parties to the Investigation - Acknowledgment Signatures

The undersigned designated *Party to the Investigation* representatives attest that the information contained in this Interim Factual Report for Technical Review is a factually accurate representation of the information collected during the on-scene investigation, to the extent of their best knowledge and contribution in this investigation.

_____

_____//s//_____ Date ___3-30-15_____
Richard A. Hipskind, NTSB

_____//s//_____ Date ___3-12-15_____
William Collins, FRA

_____//s//_____ Date ___3-17-15_____
Daniel Toth, New York State DOT

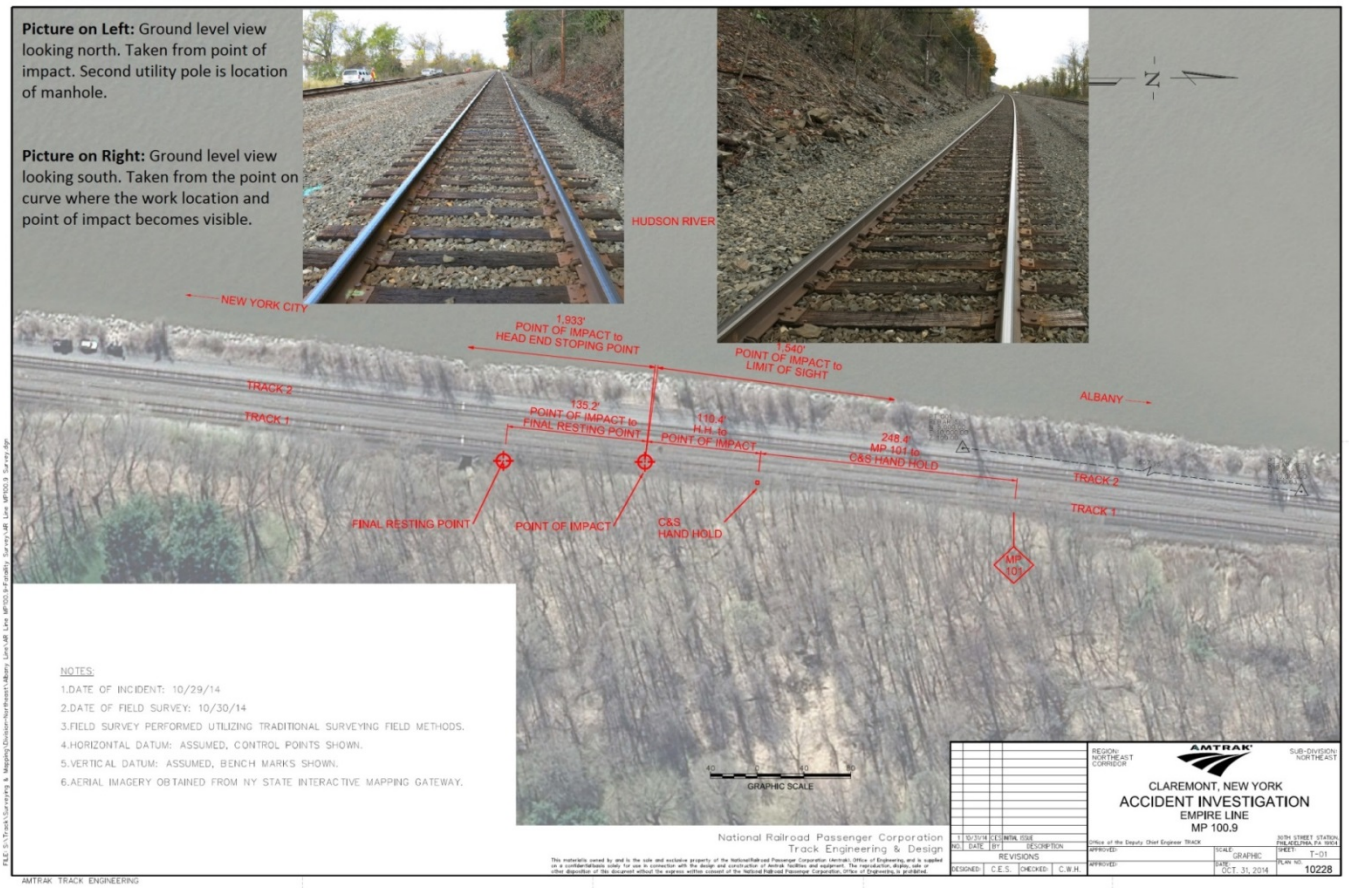
_____//s//_____ Date ____3-10-15_____
Matthew R. Porto, Amtrak

_____//s//_____ Date ____3-10-15_____
Wm. B. Foster, Columbia Co. Sheriff's Office

_____//s//_____ Date ____2-27-15_____
Jim Finnegan, BRS

_____//s//_____ Date ____3-19-15_____
Carl Fields, BLET

Appendix A



Engineering drawing of the accident scene.