# New Jersey Department of Transportation Fixed Guideway Rail Transit State Safety Oversight 2018 Public Safety Report



# A Report to the Governor and the Legislature



**Diane Gutierrez-Scaccetti**Commissioner

Philip D. Murphy
Governor

Approved: 8/9/2018

#### Abstract

This report is an annual overview of safety in relation to the rail transit systems (RTS) under the jurisdiction of the New Jersey State Safety Oversight (SSO) as is required by the Federal Transit Administration (FTA). In 2016, 23 FTA-reportable events occurred across the five properties under oversight of the office.



#### Introduction

Federal regulation 49 CFR Part 659 requires a state to oversee the safety and security of rail fixed guideway systems through a designated oversight agency. Executive Order 65 places the responsibility with the New Jersey Department of Transportation (NJDOT), while N.J.A.C. 16:53E provides the rules that govern oversight.

The Federal Transit Administration (FTA), as per 49 CFR Part 674 requires each state safety oversight agency to complete an annual status report on the safety of the rail fixed guideway systems under their jurisdiction. The data in this report is limited to the reporting year of 2016.

There were over 2100 email and telephone notifications of events made to the office during the calendar year. The NJDOT State Safety and Security Oversight Program's "Standard and Procedures" requires individual rail transit systems to notify the SSO immediately of accidents and other occurrences and to prepare and submit an investigative report afterward. These notifications resulted in 37 reports that are required by State Standards. Information from 23 reports was forwarded to the FTA to comply with federal reporting requirements.

FTA-reportable events for the full reporting year 2016 do not appear to indicate a higher than normal occurrence of any particular type of event. Looking forward, this report will compare the yearly safety records of fixed guideway operations within the State.

#### **Grants Chart**

Federal Fiscal	Federal Fiscal State Fiscal		State Allocation	
Year Year		Allocation	[toll credits]	
2013 2016		\$897,116	\$224,279	
2014 2017		\$901,431	\$225,358	
2015/2016	pending	\$1,766,141	\$444,035	

## **Transitioning to New Federal Regulations**

Moving Ahead for Progress in the 21st Century Act (MAP-21) has the provision of offering a grant to states that have an oversight authority. The purpose of the grant is to aid in establishing a program that can become certified by the FTA under 49 CFR Part 674. New Jersey's Office of Fixed Guideway Rail Transit State Safety Oversight within the Bureau of Freight Planning and Services is currently working toward certification and this report will satisfy 674.13(a) (7), which requires an annual report be submitted to: FTA, Governor of New Jersey, Governor of Pennsylvania, and the Board of Directors of Delaware River Port Authority (DRPA) and New Jersey Transit (NJT).

### **RAIL SAFE Hotline**

In November 2016, 1-844-RAILSAFE was established. This number allows transit workers to report safety concerns anonymously via telephone or fax 24-hours a day. RAIL SAFE posters are displayed prominently on rail properties and promoted by management. In 2016, no incidents were reported to this hotline.

# **Fixed Guideway Systems Descriptions**

The New Jersey Office of Fixed Guideway Light Rail State Safety Oversight is responsible for overseeing the safety of five passenger rail transit systems that operate in the State of New Jersey. One system, PATCO, also operates in Philadelphia, PA. The Pine Creek Railroad is a ¾ mile historic train loop owned by the New Jersey Museum of Transportation within the Allaire State Park.

Property	Owner	Operated by	Miles of Track
Hudson-Bergen Light Rail	New Jersey Transit	21st Century Rail Corporation	36.50
Newark Light Rail	New Jersey Transit	New Jersey Transit	13.92
RiverLINE	New Jersey Transit	Bombardier LLC	56.70
PATCO – Port Authority Transit Corporation	Delaware River Port Authority	Port Authority Transit Corporation	34.01
Pine Creek Rail Road	New Jersey Museum of Transportation	New Jersey Museum of Transportation	0.75

The AirTrain is a monorail operated at the Newark International Airport. This fixed guideway system is owned by the Port Authority of New York & New Jersey and is not under the jurisdiction of NJDOT.

#### RiverLINE

## **Overview**

The RiverLINE is a light rail transit system operating for a distance of approximately 34 miles between the cities of Trenton and Camden, New Jersey. The RiverLINE provides service to major New Jersey locations including the Waterfront Entertainment Center, Rutgers University-Camden, Pennsauken Transit and Walter Rand Transportation Centers in Camden, various towns in Burlington County, and the Trenton Transportation Center. The alignment has 72 grade crossings, 21 station stops, and 23 rail bridges. It travels through small towns and sensitive wetlands areas. The RiverLINE provides service to approximately 5,500 people daily.

#### Vehicles

The RiverLINE fleet is comprised of 20, GTW 2/6 lightweight diesel-electric Light Rail Vehicles (LRVs) manufactured by Stadler in Switzerland and assembled in Germany. Bombardier Corporation has adopted the vehicle and operates the Design, Build, Operate and Maintain contract for New Jersey Transit. The dimensions of this double articulated design LRV are 102 ft. 6 in. long, 9 ft. 10 in. wide, and 12 ft. 10 in. high. It combines low and high level seating areas. The Operator sits in a segregated area from the passengers. There are two (2) doors per side, each vehicle has a customer to Operator communication system, spaces for wheelchairs/strollers/bicycles, and is ADA compliant.

Each vehicle is configured to provide seating for 90 Customers with room for additional 94 standees (crush load 184 Customers). Individual cars can be connected and operate bi-directionally with all cars being controlled by the operator in the first car. A train length of three cars is technically feasible, but in practice, train length is limited to two LRVs because of station platform length limitations and other operating considerations, such as operating in the street in Camden.

#### Track

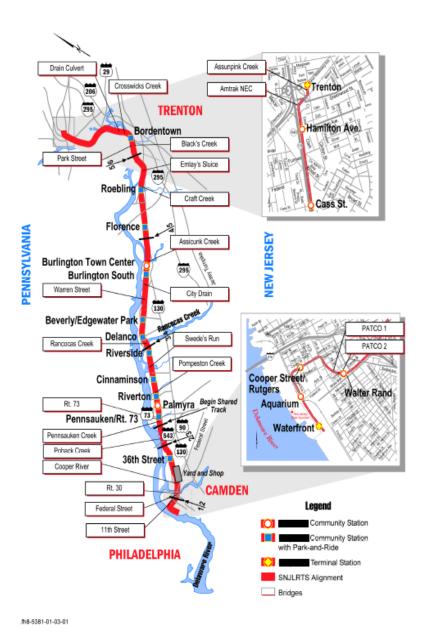
The LRVs ride on three types of Re 115 AREMA rail: Ballasted Track, Slab (Direct) Fixation Track and Embedded Track. The RiverLINE operates under temporal (time) separation on track shared with Conrail freight operations from Pennsauken to Trenton. Additionally, track sections north of Cass Street Station and south of Trenton Station are restricted to passenger-only operation.

LRV and Joint Use track is constructed of continuous welded rail. The switches at interlockings and crossovers are dual control. The switches into freight sidings and freight only track are electrically locked and manually operated.

## **Physical Plant and Systems**

The RiverLINE's major maintenance, operational control center, train storage, and management functions are housed in the Camden Light Rail Complex (CLRC) at 700 Biedeman Avenue in Camden City. Another facility for overnight layover and minor servicing of two LRVs is located in Burlington Township. A third facility, for storage, overnight layover and minor servicing of eight LRVs, is located between the Trenton and Hamilton Avenue stations. Haines Yard located north of Pennsauken/Route 73 station is used for the storage of maintenance-of-way (MOW) equipment.

The RiverLINE utilizes an FRA compliant Automatic Block Signal (ABS) System to operate the trains safely over joint-use track. In areas of street running, Bar Signals are tied into the Vehicular Traffic Signals via a system of traffic preemption, providing trains with a clear signal when motor vehicle traffic lights are in the stop (red) position for conflicting vehicular traffic.



**Map of RiverLINE** 

#### **PATCO**

#### **Overview**

PATCO is a wholly-owned subsidiary of the DRPA of New Jersey and Pennsylvania. The line consists of a double track operation that extends approximately 14.5 miles from Lindenwold, New Jersey to the City of Philadelphia in Pennsylvania. There are thirteen active rail stations that service an average 34,000 daily riders. PATCO uses the Benjamin Franklin Bridge to provide train service between New Jersey and Pennsylvania. 2.3 miles of track in downtown Philadelphia and Camden are subway and the remaining 12.2 miles are above ground. PATCO operates 24 hours a day service throughout the year.

#### **Vehicles**

PATCO operates 120 railcars manufactured by the Budd Company (67) and Vickers Canada, Inc. (46). The trains are powered by 750 volt direct current. The dimensions of the cars are 67 ft. 6 in. long, 10 ft. wide and 12 ft. 4 in. high. By the end of 2016, PATCO had completed over 50% of a vehicle overhaul program.

#### Track and Power

The railcars operate on standard railway gauge of 4 ft. 8 ½ in. PATCO has nine electrical substations that provide traction power. This AC electrical power is provided by three 26 KvA feeder lines from Public Service Electric and Gas (PSE&G) in New Jersey and two 13,200 volt lines from Philadelphia Electric Company. Power is connected to the railcars through a third rail.

## **Physical Plant and Systems**

The PATCO primary maintenance support facility is the Lindenwold Maintenance Shop Building. Two shops include four vehicle maintenance tracks and one vehicle wash track that was recently upgraded. This maintenance area also includes a welding machine and electronic shops. In addition, the facility houses the PATCO administrative offices. Passenger operations are monitored and managed from Central Tower, which is the primary control center for PATCO service. At this remote location, PATCO train dispatchers can monitor service performance, communicate with operations personnel and contact police and other emergency responders to initiate corrective measures as required.

Railroad lines parallel PATCO service in two areas within the service corridor. In Camden, NJ, Conrail Shared Assets operates adjacent to the PATCO eastbound track for approximately one-half mile and New Jersey Transit operates parallel to the PATCO eastbound track for a distance of five and one-half miles between Haddonfield and Lindenwold Stations. The wayside signal and control equipment includes cab signals, a train protection system, interlocking protection and signals, and a fail-safe train detection system.



**Map of PATCO** 

# **Hudson-Bergen Light Rail**

#### **Overview**

The Hudson-Bergen Light Rail Transit System (HBLR) is owned by New Jersey Transit and operated by Twenty First Century Rail Corporation which is a partnership of AECOM (formerly URS Corporation) and Kinkisharyo International. The system operates for approximately 15.9 route miles of double-track between Bayonne, New Jersey and North Bergen, New Jersey. The HBLR line provides service to approximately 52,000 people daily while running 20 hours a day, 7 days a week. The light rail service provides 24 station stops, and 2 employee flag stops. The line starts above ground at the southern terminus in Bayonne, NJ and operates primarily on grade-separated right-of-way with approximately two miles of street running in mixed traffic. The rail line progresses north through a double track 4,096 foot long tunnel to the northern terminus at North Bergen, NJ.

#### Vehicles

The HBLR system has 52 electric powered light rail vehicles (LRVs) built by Kinkisharyo. The trains are electrically operated using both fixed tension and variable tension catenary powered by 750V DC. Each vehicle is 90 ft. (27.4 m) long and has four sets of double-opening doors on each side. The vehicles can seat 68 passengers each, with standing room for another 122 passengers. HBLR is currently midway through the anticipated life expectancy of its rail fleet, but due to overall good maintenance practices, the life expectancy of the vehicle fleet has been extended by ten years. Kinkisharyo is the joint venture partner leading the shop maintenance for rail car warranty items and improvements to vehicles. They are just beginning alterations which include two new center articulated cars which will increase capacity.

#### **Track and Power**

The LRVs operate on standard railway gauge of 4 ft. 8 ½ in. There are three general types of track in the system: Ballasted, Slab and Embedded. Interlockings are controlled through the HBLR Headquarters and Maintenance Facility at 20 Caven Point Avenue in Jersey City (aka. The 20 Office).

Power is received from the public utility (PSE&G) electric power grid through a series of substations to the catenary. It provides all related functions including conversion and switching of traction power, negative return and auxiliary power. Traction Power Substations (TPSS) are spaced along the right-of-way, approximately one mile apart. They have traction power rectification equipment and switch gear to supply power to the catenary.

## **Physical Plant and Systems**

The HBLR rail system's major maintenance, operational control, train storage, and vehicle wash track are housed at the Caven Point Avenue Maintenance Facility. In addition to shop and yard facilities, the HBLR administrative offices are located here.

All trains, stations and communications (normal and emergency) are monitored through Controllers at The 20 Office.

# Hudson-Bergen Light Rail "Bayonne Flyer" limited-stop service (weekday peak hours only) Hoboken Terminal - Tonnelle Avenue Tonnelle Avenue - West Side Avenue Park-and-ride lot. Hoboken Terminal - 8th Street Connecting services UNION NORTH BERGEN Port Imperial WEEHAWKEN Lincoln Harbor 9th Street 2nd Street HOBOKEN Noboken Terminal MJ 776ABOUT and Metro-North - PATH to Jührl School Pavonia/Newport ÖB Harsimus Cove Harborside Financial Center JERSEY CITY Einteoge Place ∯rPA 7M to World Trade Genter Exchange Place TORN THOMP Liberty State Park An Galland Richard Danforth Avenue B 0 45th Street BAYONNE BAYONNE 34th Street 22nd Street

Map of Hudson-Bergen Light Rail

# **Newark Light Rail**

#### **Overview**

The Newark Light Rail (NLR) System is owned and operated by New Jersey Transit. It is a 6.5 mile light rail line that operates as a rapid transit link between terminal stations at Penn Station in Newark, NJ and Grove Street Station in Bloomfield, NJ, but also includes a short spur track known as the Broad Street Extension that runs from Newark Penn Station north to service the NJ Performing Art Center and Riverfront Stadium and ultimately terminates at Broad Street Station in downtown Newark. The double-tracked light rail line is in an underground tunnel for 1.7 miles and either at grade or depressed cut for 3.8 miles and approximately one mile of street running territory. The system serves approximately 16,000 passengers daily and operates 21 hours a day, 7 days a week.

#### Vehicles

NLR operates a fleet of 21 bi-directional LRVs for revenue service. The railcars were manufactured by Kinkisharyo. They are 70% low floor double-articulated vehicles approximately 90 ft. long, 9 ft. wide and 12 ft. high. They are equipped with four doors on each side of the vehicle to allow passenger access/egress and one door on each side to allow access to the Operator's compartment.

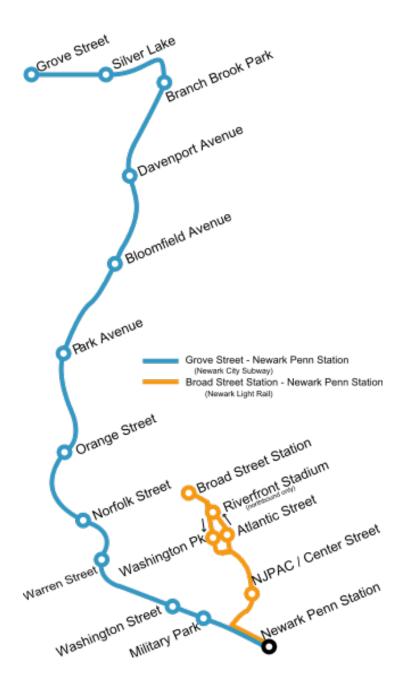
## **Track and Power**

The LRVs operate on standard railway gauge of 4 feet 8 ½ inches. There are three general types of track in the system: Ballasted, Slab and Embedded. Interlockings are controlled through the control center.

The system operates on 750 volt DC overhead catenary electrical power provided by PSE&G via sub-station connections. The system has 6 sub-stations spaced approximately every 1.5 miles along the right-of-way.

## **Physical Plant and Systems**

Operations and maintenance offices are located at the Vehicle Base Facility (VBF) at 261 Grove Street in Bloomfield, NJ. Administrative, operational, and maintenance functions of the NLR are performed, monitored and controlled from this facility. There are 10 overhead auto/pedestrian crossings of the NLR right-of-way.



**Newark Light Rail** 

#### Pine Creek Railroad

#### **Overview**

The Pine Creek Railroad is an historic train ride owned by the New Jersey Museum of Transportation located in Allaire State Park. It is not regulated by the FTA, but is overseen through an MOU between the NJDOT SSOA and the NJ Department of Community Affairs. The NJ Department of Environmental Protection -Division of Parks and Forestry owns the land for the NJMT and permits them to operate under a Lease Agreement.

The New Jersey Museum of Transportation, Inc. (NJMT) is a private, volunteer operated, 501 (c) 3 not-forprofit educational organization. NJMT works with school groups and participates with Jackson High School offering mentoring programs. NJMT is the owner and operator of the Pine Creek Railroad, a demonstration railway that restores and operates antique rail equipment. It is supported exclusively by train fares, souvenir sales and private contributions; it is not funded by the State or any public entity. The operation is supported by volunteers who donate more than 10,000 hours annually and are headed by a Board of Trustees.

The railroad operates on weekends from Easter thru June, daily July and August, and again on weekends September thru December. NJMT offers special events as fund raisers including Easter, Civil War Encampment, Railroader's Weekend, Halloween and Christmas. NJMT performs maintenance and repair work in January, February and March.

#### **Track and Power**

Track inspection is performed routinely by members of NJMT who are trained in an in-house program, based on commercial practice. Some members have also trained with the Railway Education Bureau and have received certificates from that organization. Minor repairs are performed by members while larger projects are sub-contracted out.

### **Vehicles**

Operations are powered by diesel electric antique locomotives. Passenger cars are pulled by either a 25 ton GE, built in October 1942 for the US Army (out-shopped in 2015) or a center cab GE built in 1953. Both are radio equipped and use 14EL brake systems. These units receive daily inspection by the operating crews for serviceability. Other industrial type antique locomotives are also operated for display and maintenance service and are inspected prior to operation.

#### **Physical Plant and Systems**

NJMT maintains a well-equipped repair shop including machine shop with welding capabilities, a wood shop, an equipment storage building and a car barn. Other structures include Freneau Station (CNJ circa 1907), Allenwood Station (P.R.R.), the Union News Stand (NY&LB, Manasquan) a P.R.R. crossing shanty from Manasquan and a CNJ crossing Shanty from Spring Lake. NJMT also has a working water tower. The office is a Raritan River Rail Road Caboose on a foundation.

NJMT does not have signaled track and operates by radio communication. NJMT does have formal in-house training programs including Operations, Right-of-Way worker safety, Heavy Equipment Operator and Maintenance. Qualifications follow an established outline for each discipline and must be re-qualified triennially (every 3 years).



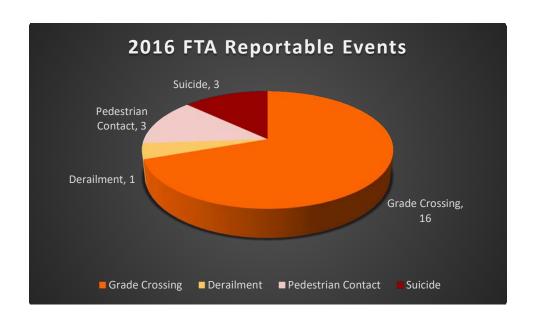
**Pine Creek Railroad** 

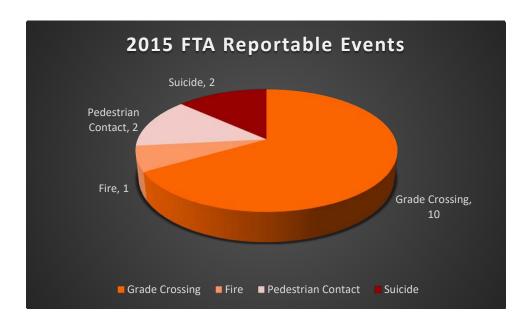
## **Incidents / Accidents**

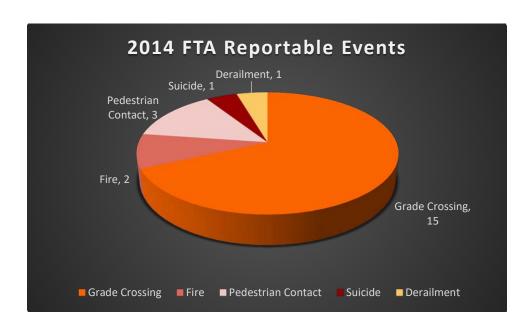
The New Jersey Department of Transportation (NJDOT) Safety and Security Oversight (SSO) Program's "Standard and Procedures" requires individual rail transit systems to provide 2-hour notification to the SSO of events that meet the definition of an accident and to prepare and submit an investigative report. 49 CFR Part 659 requires that these reports are forwarded to the FTA. The following diagram shows the accidents that resulted in these reports for 2016. The status of Corrective Action Plans (CAP) established as a result of accident investigations and hazardous conditions is provided in Appendix A to this report.

Reported accident numbers are subject to change with National Transportation Database (NTD) reconciliation.

## Incidents Requiring a Full Report to the FTA







FTA REPORTABLE EVENTS (2014-2016)								
YEAR	GRADE CROSSING FIRE PEDESTRIAN CONTACT SUICIDE DERAILMENT TO							
2014	15	2	3	1	1	22		
2015	10	1	2	2	0	15		
2016	16	0	3	3	1	23		

- Number of all events reported are almost identical when comparing years 2014 and 2016.
- All events reported from 2015 to 2016 had increased from 15 to 23. This was as a result of more number of events reported at "grade crossings".
- On the other hand, the emergency drills and trainings have aided to eliminate events related to "fires" in 2016. Fire represents the "null" number of events reported by SSOA.
- Suicide events has increased year over year from 2014 to 2016 from 1 to 3.
- There has been no change in derailments comparing 2014 with 2016 during the analyzed period.

## **Event Definitions and Reporting Level Required**

Occurrences - Events involving injury, fatality, damage to property or the environment, collisions or derailments, vandalism to vehicles, failed switches and signals, power loss, door trouble, elevator entrapments, child/parent separations. Also, close calls, near misses, or violations of safety standards.

Full Reports - Collisions, vehicle evacuations, derailments, passenger and employee injuries, stop signal violations and work zone violations.

FTA Reports – Properties are required to notify the SSO within 2 hours of an Accident meeting at least one of the following thresholds:

- 1) A fatality at the scene; or where an individual is confirmed dead within thirty (30) days of a rail transit-related Event;
- 2) Injuries requiring immediate medical attention away from the scene for two (2) or more individuals;
- 3) Property damage to rail transit vehicles, non-rail transit vehicles, other rail transit property or facilities and non-transit property that equals or exceeds \$25,000;
- 4) An evacuation due to life safety reasons;
- 5) A collision at a grade crossing;
- 6) A main-line derailment;
- 7) A collision with an individual on a rail right-of-way;
- 8) A collision between a rail transit vehicle and a second rail transit vehicle, or a rail transit non-revenue vehicle.

## **Triennial Audits of Fixed Guideway Properties**

In 2016, there were two required triennial audits: HBLR and RiverLINE. Both of these audits were postponed due to the office's inability to secure an auditing consultant and were instead scheduled to be done along with the 2017 scheduled audits of PATCO and NLR. For a listing of CAPs associated with earlier triennial audits, refer to Appendix B.

# **Auditing Schedule**

Year	Properties
2017	HBLR, RiverLINE, NLR, and PATCO
2018	None
2019	HBLR and RiverLINE
2020	NLR and PATCO

# **Major System Improvements**

The following major improvement projects were started or continued in 2016 at each of the four major locations.

	Location	Project	Value	2016 Status		
			(\$Million)			
1	RiverLINE	Back-up Control Center	1.53	Completed		
2	PATCO	Ben Franklin Bridge structural and	102	Initiated		
		railroad improvements				
3	PATCO	Transit Car Overhaul	194	Initiated		
4	HBLR	Vehicle Extension	15	Initiated		
5	HBLR	Mill Creek Interlocking	1.9	Completed		
6	NLR	Vehicle Extension	37.5	Initiated		
7	NLR	Emergency Ventilation Fans due to	2.5	Completed		
		Superstorm Sandy				
8	NLR, HBLR	Interior and forward-facing cameras	2	Completed		
		within LRV's				
9	RiverLINE	Interior and forward-facing cameras	0.5	Completed		
		within LRV's				
10	NLR, HBLR	Onboard security cameras	1.9	Completed		
11	RiverLINE	Onboard security cameras 0.7 Initiated				
12	HBLR	Replacement of 32 track switches	1.7	Completed		

## **Emergency Drills**

### **New Jersey Transit**

Emergency response training exercises included an active shooter scenario on NLR, a protester event on NLR, a Hazmat scenario on HBLR, simulated bomb threat on an LRT at HBLR's yard, and an explosives ordinance disposal response on the RiverLINE.





#### **DRPA**

DRPA and PATCO hosted The Philadelphia Area Regional Transit Security Working Group (PARTSWG), in coordination with the Transportation Security Administration (TSA) Intermodal Security Training and Exercise (I-STEP), conducting Program a Tabletop Exercise (TTX) on June 23, 2016. Exercise players engaged in a scenario-driven, facilitator-led discussion regarding regional capabilities in the prevention, protection, and response mission areas. The purpose of this TTX was to validate the PARTSWG Regional Emergency Operations Plan, identify regional



memorandums of understanding (MOUs), and identify the need for additional MOUs as necessary. The focus was on intelligence and information sharing, as well as initial response to incidents within the regional transit network. Attendees were able to better understand the implications that a transit security threat or incident may have their organization and the region. This activity applies to NJ Transit as well as PATCO.

## Safety Advisories

The FTA mandates reports in areas that need immediate attention or in order to compile data on a national level. The reports include information provided by each rail property. The two Safety Advisories completed in 2016 include:

Safety Advisory 16-1: Stop Signal Overruns Safety Advisory 16-2: Third Rail Data Collection

# **Safety Certifications**

	System	Certifications
1	HBLR	Mill Creek Interlocking
2	HBLR	Vehicle Extension LRT# (2003, 2004, 2005, 2006)
3	NLR	Vehicle Extension LRT# (104, 105, 106)

# **Office Staffing**

Himanshu Patel, SSO Program Manager Todd Kropilak, Contract Administrator Wendy Kovitz, Program Support Specialist (US Tech)

## **Consultant Services**

Amber Brovak, Radiant Systems Michael Clemmons, Sunrise Systems James Hansen, Sunrise Systems Edward Koehler, Radiant Systems

## **Address**

Himanshu Patel New Jersey Department of Transportation 1035 Parkway Avenue MOB, 3<sup>rd</sup> Floor Trenton, NJ 08625

# **Appendix A**

# **Corrective Action Plans from Accidents and Hazardous Conditions by Property**

Rail Transit Agency	Hazard Internal Tracking ID	Hazard Reported (659.31(5))	Date Identified	Mitigation	Corrective Action Plan Developed?
New Jersey Transit - Hudson Bergen	Haz Cap 1	Standing water inside north fan room	1/1/2016	Four sump pumps have been installed	No
New Jersey Transit - Hudson Bergen	Haz Cap 2	Standing water on Track 1 by the north fan room in tunnel	1/1/2016	Track is inspected twice a week	No
New Jersey Transit - Hudson Bergen	Haz Cap 3	Water leaking from the ceiling is coming in contact with catenary and track	1/1/2016	Area is inspected twice a week	No
New Jersey Transit - Hudson Bergen	Haz Cap 4	Replacement of Millcreek Central Instrument Housing (CIH)	1/1/2016	Full rehabilitation	Yes
New Jersey Transit - Hudson Bergen	Haz Cap 5	Worn pavement markings and missing signage	1/1/2016	Pavement remarking and installation of missing signage	Yes
New Jersey Transit - Hudson Bergen	Haz Cap 6	51st Street slope stabilization	1/1/2016	Increased monitoring of slope	Yes
New Jersey Transit - River Line	Hazard Management	Loss of shunt	1/1/2016	Ongoing monitoring of loss shunt	Yes
Port Authority Transit Corporation	Hazard Management	Replacement of solder joint cable needed	1/1/2016	Permanent lug replacement will be installed as part of the car overhaul project	Yes

# Appendix B

# **Corrective Action Plans from Triennial Safety Audits**

Rail Fixed Guideway Public Transportation System	CAP Internal Tracking ID	Identified Action (659.37(b))	SOA Approved ?	Proposed Implementation Date	Actual Implementation Date	CAP Status	Implementation Verified	Issues Preventing Resolution
New Jersey Transit - Newark City Subway	N Tri-cap 1	Updating rule book	Yes	3/15/15		Open		New chairperson needs to be assigned to rules committee
New Jersey Transit - Newark City Subway	N Tri-cap 2	Apply efficiency testing as needed during all hours of operations, including nights and weekends.	Yes	5/1/17		Open		In the process of hiring two controllers
New Jersey Transit - Newark City Subway	N Tri-cap 3	To establish a fitness for duty program and personnel are properly trained to support compliance to the designated program	Yes	7/15/15		Open		In the process of hiring two controllers
New Jersey Transit - Newark City Subway	N Tri-cap 4	To develop a standard for special track work maintenance activities	Yes	7/15/15		Open		Currently developing manual
New Jersey Transit - Newark City Subway	N Tri-cap 5	Report non- functioning safety critical equipment as a hazardous condition	Yes	1/15/15		Open		Proposed resolution does not address identified action
Port Authority Transit Corporation	11-01.	Revised staffing and compensation policy	Yes	12/15/16	12/30/16	Closed	Yes	
Port Authority Transit Corporation	15-19.	The table of equipment to be inspected	Yes	8/15/15		Open		Safety needs to act on this
Port Authority Transit Corporation	15-20.	Ensure inspection records (info structure/ equipment) are accessible to the safety department	Yes	8/15/15		Open		Equipment and Way & Power needs to act on this
Port Authority Transit Corporation	15-21.	Procure automatic updating to the electronic database for MSDS/ GHS	Yes	8/15/15		Open		Shared resource with DPRA. Not solely a PATCO issue.
Port Authority Transit Corporation	15-22.	Employee access to MSES system	No	2/15/15	2/15/15	Closed	Yes	
Port Authority Transit Corporation	15-26.	Develop facility preventative maintenance and inspection plan, program or procedure for IT info structure	Yes	9/27/16		Open		IT department needs to act on procuring recommended technology
Port Authority Transit Corporation	15-27.	SCADA/ Communications room FM200 fire suppression system is over do for inspection	Yes	2/15/15	4/15/17	Closed	No	