



Metropolitan Transportation Authority

Safety Committee Meeting April 2017

Committee Members

F. Ferrer, Acting Chair

A. Albert

N. Brown

C. Moerdler

M. Pally

J. Samuelson

V. Tessitore, Jr.

J. Vitiello

P. Ward

N. Zuckerman

Safety Committee Meeting

**2 Broadway, 20th Floor Board Room
New York, NY 10004**

Wednesday, 4/26/2017

8:30 - 9:30 AM ET

1. Public Comments

2. Approval of Minutes - December 14, 2016

Safety Committee Minutes - Page 3

3. Safety Committee Work Plan

2017 Safety Committee Work Plan - Page 6

4. Safety Metrics

MNR Metric - Page 9

LIRR Metric - Page 10

NYCT Metric - Page 11

B & T Metric - Page 12

MTACC Metric - Page 13

5. Safety Risk Management: Leveraging Technology to Improve Safety

Leveraging Technology to Improve Safety Presentation - Page 14

6. Safety Policy: Update on Sleep Disorder Screening and Treatment

Update on Sleep Disorders Presentation - Page 39

Date of next meeting: July 26th @ 8:30 AM

**Metropolitan Transportation Authority
Minutes of
Safety Committee Meeting
2 Broadway, 20th Floor
New York, NY 10004**

**Thursday, February 23, 2017
8:30 AM**

The following members were present:

**Hon. Fernando Ferrer, Acting Chair
Hon. Mitchell Pally
Hon. Andrew Albert
Hon. Neal Zuckerman
Hon. Charles Moerdler
Hon. Vincent Tessitore
Hon. Peter Ward
Hon. Ira Greenberg
Hon. Susan Metzger
Hon. John Molloy
Hon. Norman Brown**

The following safety officers were present:

David Mayer - MTAHQ
Cheryl Kennedy - NYCT
Loretta Ebbighausen - LIRR
Justin Vonashek – MNR
Anne Kirsch – MTAHQ
Stephen Vidal – MTA Bus
Peter Kohner - MTA-CC
Eric Osnes – B & T

Joseph J. Giulietti, President, Metro-North Railroad (“MNR”), Patrick Nowakowski, President, Long Island Rail Road (“LIRR”), Donald Spero, President, Bridges and Tunnels (“B&T”), Michael Horodniceanu, President, MTA Capital Construction (“MTA-CC”), and Darryl Irick, Acting President, New York City Transit (“NYCT”) and Steven Vidal, Acting President, MTA Bus also attended the meeting.

Acting Chairman Ferrer called the meeting to order.

PUBLIC SPEAKERS

There were no public speakers.

APPROVAL OF MINUTES

Upon motion duly made and seconded, the minutes of the December 14, 2016 Safety Committee were approved.

2017 COMMITTEE WORK PLAN

Acting Chair Ferrer asked Mr. Mayer if there were any changes to the work plan. Mr. Mayer stated there were no changes but asked that the Board vote to approve the work plan.

SAFETY METRICS

Mr. Mayer stated that the Metrics included in the Safety Committee book are the same Metrics reported in the Agency Committee books.

SAFETY ASSURANCE: BUS SAFETY – A FOCUS ON OPERATOR VISIBILITY

Mr. Mayer introduced Yogesh Patel of MTA Bus to report on Bus Operator Visibility. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Albert asked about visibility on the right side of the bus after referencing the presentation that stated improved visibility to the rear and left of the bus. Mr. Patel answered that MTA Bus is working to ensure both mirrors offer better operator visibility.

Mr. Moerdler asked since the majority of bus collisions are caused by buses being rear-ended, if Safety Leads have considered accident avoidance technology. Mr. Vidal answered the Safety Leads believe the contrasting colors of the "new-look" buses will significantly reduce rear collisions.

Mr. Greenberg asked if the Sleep Apnea Screening program would include bus operators. Ms. Kennedy confirmed that bus operators would be screened.

Mr. Zuckerman asked what measures MTA Bus and Bridges and Tunnels have taken to mitigate collisions as both reported an increase over the last 2 years. Mr. Spero responded that Bridges and Tunnels had an increase over the summer months but is currently on a downward trend.

SAFETY ASSURANCE: C3RS PROGRAMS – CORRECTIVE ACTIONS IMPLEMENTED

Mr. Mayer then introduced Ms. Ebbighausen and Mr. Vonashek to report on the Close Call Reporting System Program. Please refer to the video recording of the meeting produced by the MTA and maintained in MTA records for the content of speaker's remarks.

Mr. Albert asked if platform stopping locations vary. Ms. Ebbighausen answered that there are routine locations but confirmed there can be variability and that conductors remain vigilant.

Mr. Vitiello asked how information regarding new equipment is disseminated to work crews. Mr. Ebbighausen answered that the Transportation Department has an extensive notification process such as bulletins & general notices.

Mr. Moerdler recommended Safety Leads consider options using new technology, such as Collision Avoidance, where applicable. Mr. Mayer assured Mr. Moerdler that Safety Leads are currently and will continue to explore initiatives that may be useful.

Mr. Greenberg asked if grade crossing improvements were being made at crossings other than Stony Brook. Ms. Ebbighausen responded that the Peer Review Team (“PRT”) does assess potential application of best practices at other locations.

Ms. Metzger asked if the small number of corrective actions implemented address most if not all of the reports received. Ms. Ebbighausen indicated that the corrective actions address about 80% of the reports received. The remaining 20%, may not be appropriate for resolution under the C3RS program, but the PRT is ensuring these reports are not forgotten and referring them to more appropriate venues for resolution.

Mr. Vitiello asked if there is a Research and Development (R&D) budget for Safety Programs. Mr. Mayer confirmed that there is a budget. Mr. Vitiello then asked if there is Safety personnel whose sole responsibility is R&D and if so, how many people are allocated to that position? Mr. Mayer answered that NYCT has employees solely focused on research but they do share their findings with other agencies. He also stated Safety Leads would come back to the Board with a presentation.

Mr. Albert asked Mr. Vonashek to confirm that trains East of Stamford use a different channel. and if so, can that cause delays in communications? Mr. Vonashek responded that using different channels is common in the train industry because having one channel causes too much traffic on one line. Mr. Albert then asked if conductors are aware if there are other trains in the vicinity. Mr. Kesich responded that conductors do not communicate across districts, all communications go through the Operations Control Center which is aware of the locations of all trains.

Mr. Greenberg asked if the LIRR will also use speed restriction hang tags. Ms. Ebbighausen answered that though it has been considered, the PRT does not feel it is a corrective action that needs to be implemented at this time. Mr. Giulietti invited Mr. Greenberg to the MNR Control Center to better understand how communications work and stated that once Positive Train Control is put in place, hang tag reminders will no longer be needed as reminders will be taken care of electronically.

Mr. Tessitore suggested that more resources should be made available to employees through Employee Assistance Programs.

ADJOURNMENT

Upon motion duly made and seconded, the Board voted to adjourn the meeting at 9:17 am.

2017 Safety Committee Work Plan

I. RECURRING AGENDA ITEMS

<u>Topic</u>	<u>Responsibility</u>
Public Comments	Committee Chair & Members
Approval of Minutes	Committee Chair & Members
Committee Work Plan	Committee Chair & Members

II. SPECIFIC AGENDA ITEMS

February 2017

	<u>Responsibility</u>
Safety Assurance – Review of Safety Performance	Agency Safety Leads
Safety Promotion – Specific item TBD	Safety Staff

April 2017

Safety Policy – Specific item TBD	MTA Chief Safety Officer
Safety Risk Management	Safety Staff

July 2017

Safety Assurance – Review of Safety Performance	Agency Safety Leads
Safety Promotion – Specific item TBD	Safety Staff

September 2017

Safety Promotion – Specific item TBD	MTA Chief Safety Officer
Safety Risk Management – Specific item TBD	Safety Staff

December 2017

Safety Policy – Evaluation of Safety Committee Charter	Committee Chair & Members
Safety Assurance – Review of Safety Performance	Agency Safety Leads

January 2018

Safety Policy – Approval of 2016 Work Plan	Committee Chair & Members
Safety Risk Management – Specific item TBD	Safety Staff

Detailed Summary

I. RECURRING AGENDA ITEMS

Approval of Minutes

The Committee Chair will request a motion to approve the minutes of the prior meeting of the Safety Committee.

Committee Work Plan

The Work Plan will list, by meeting, the topics scheduled for review. The Committee will be advised if any changes have been made to the plan.

II. SPECIFIC AGENDA ITEMS

Note: The SMS framework has four pillars: Safety Policy, Safety Risk Management, Safety Assurance, and Safety Promotion. To facilitate general oversight of SMS activities at the MTA and its agencies, each agenda items will generally pertain to one of these pillars.

February 2017

Safety Assurance – Review of Safety Performance

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

Safety Promotion

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

April 2017

Safety Policy

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Policy SMS pillar.

Safety Risk Management

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

July 2017

Safety Assurance – Review of Safety Performance

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

Safety Promotion

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

September 2017

Safety Promotion

The committee will receive a briefing and/or an action item pertaining to a specific aspect of the Safety Promotion SMS pillar.

Safety Risk Management

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

December 2017

Safety Policy – Evaluation of Safety Committee Charter

The Safety Committee Charter specifies that the Committee Chair & Members will review the charter annually. This relates to the Safety Policy SMS pillar.

Safety Assurance – Review of Safety Performance

The committee will receive a briefing and discussion will be invited pertaining to the safety performance of the agencies. This relates to the Safety Assurance SMS pillar, and provides an opportunity for deeper exploration of “lagging” indicators of safety.

January 2018

Safety Policy – Approval of 2018 Work Plan

The committee will be presented with and discuss the 2018 work plan and asked to approve the same. As the work plan governs the activities of the committee, this pertains to the Safety Policy SMS pillar.

Safety Risk Management

The committee will receive a briefing and discussion will be invited pertaining to a specific aspect of the Safety Risk Management SMS pillar.

February 2017 Safety Report

Performance			
Performance Indicator	12-Month Average		
	March 2014 -February 2015	March 2015 -February 2016	March 2016 - February 2017
FRA Reportable Customer Accident Rate per Million Customers	1.80	1.24	1.13
FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours	2.28	2.56	2.76
Grade Crossing Incidents ¹	1	2	1
Mainline FRA Reportable Train Derailments	0	2	1
Mainline FRA Reportable Train Collisions	0	0	0

¹ Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

Leading Indicators				
Safety Training	2016		2017	
	February	Year End	February	Year to Date
First Responders Trained	-	1,314	146	304
Employee Safety Training Courses	-	307	98	188
Employees Trained	-	6,161	1,208	2,000
Employee Safety Training Hours	-	268,469	25,892	35,447
Customer and Community: Focus on Grade Crossings	2016		2017	
	February	Year to Date	February	Year to Date
Broken Gates	2	12	3	6
MTA Police Details	128	238	133	297
Summons	38	55	43	139
Warnings	14	30	7	11
Community Education and Outreach	NA	NA	11,890	15,290
Cars Equipped with Cameras	Fleet Size	Total Cars Equipped	% Complete	
Inward / Outward Facing Cab Cameras	957	8	0.84%	
Passenger Compartment Cameras	1,088	8	0.74%	

Definitions:

First Responders Trained - The number of first responders trained by MNR's Emergency Management to assist in crisis events, such as train evacuation.

Employee Safety Training Courses - The number of distinct safety-related courses offered, including technical courses that have a safety element. Repeats are excluded so that each course is counted only once.

Employees Trained - The number of unique employees that attended one or more of these safety-related courses.

Employee Safety Training Hours - The total hours of training completed by employees in all safety-related courses attended.

MTA Police Detail - The number of details specifically for the purpose of monitoring behavior at Grade Crossings.

Summons for Grade Crossing Violation and other Infractions- The number of violations issued to a motorist for going around a crossing gate or due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Warnings - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Community Education and Outreach - The number of individuals reached at a TRACKS event. Program began in May 2016.

Cars Equipped with Cameras - Number of complete inward/outward and passenger compartment camera installations on rolling stock. Installation began in August 2016.

February Safety Report

Statistical results for the 12-Month period are shown below.

Performance			
Performance Indicator	12-Month Average		
	March 2014- February 2015	March 2015- February 2016	March 2016 - February 2017
FRA Reportable Customer Accident Rate per Million Customers	4.64	4.27	2.89
FRA Reportable Employee Lost Time Injury Rate per 200,000 worker hours	3.86	3.22	3.19
Grade Crossing Incidents ¹	3	13	8
Mainline FRA Reportable Train Derailments	0	0	3
Mainline FRA Reportable Train Collisions	3	2	2

¹ Per FRA - Any impact between railroad on-track equipment and a highway user at a highway-rail grade crossing. The term "highway user" includes automobiles, buses, trucks, motorcycles, bicycles, farm vehicles, pedestrians, and all other modes of surface transportation motorized and un-motorized.

Leading Indicators				
Focus on Safety Training	2016		2017	
	February	Year to Date	February	Year to Date
First Responders Trained	27	1,537	134	413
Employee Safety Training Courses	99	210	87	124
Employees Trained	1,088	6,013	1,083	2,029
Employee Safety Training Hours	21,762	223,736	20,549	50,409
Customer and Community: Focus on Grade Crossings	February	Year to Date	February	Year to Date
Broken Gates	14	23	7	15
MTA Police Details	41	104	57	98
Summons	114	241	198	321
Warnings	61	169	99	151
Arrests	0	0	0	0
Community Education and Outreach	8,756	17,499	10,342	17,655
		Completed	Total	% Complete
Cameras on Rolling Stock	Production to begin in May 2017		TBD	TBD

Definitions:

First Responders Trained - The number of first responders trained to assist in crisis events.

Employee Safety Training Courses - The number of distinct safety-related courses offered, including technical courses that have a safety element. Repeats are excluded so that each course is counted only once.

Employees Trained - The number of unique employees that attended one or more of these safety-related courses.

Employee Safety Training Hours - The total hours of training completed by employees in all safety-related courses attended.

Broken Gates - The number of events at grade crossing locations where a vehicle broke a crossing gate.

MTA Police Detail - The number of details specifically for the purpose of monitoring behavior at Grade Crossings.

Summons for Grade Crossing Violation and other Infractions- The number of violations issued to a motorist for going around a crossing gate or due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Warnings - The number of warnings issued to motorists due to behavior that put the motorist at risk (i.e. cell phone use, etc.).

Community Education and Outreach - The number of participants who attended a TRACKS, Operation LifeSaver, or Railroad Safety Awareness Event.

Cameras on Rolling Stock - Number of complete inward/outward camera installations on rolling stock.

Monthly Operations Report

Statistical results for the 12-Month period are shown below.

Safety Report				
Performance Indicators	12-Month Average			
	Mar 2014 - Feb 2015	Mar 2015 - Feb 2016	Mar 2016 - Feb 2017	
Subways				
Subway Customer Accidents per Million Customers ¹	2.60	2.60	2.57	
Subway Collisions ^{2,3}	1	0	0	
Subway Derailments ^{2,3}	3	2	3	
Subway Fires ²	963	1,022	952	
Buses				
Bus Collisions Per Million Miles Regional	48.63	53.79	55.93	
Bus Collision Injuries Per Million Miles Regional	6.43	6.28	6.50	
Bus Customer Accidents Per Million Customers Regional	1.09	1.15	1.28	
Total NYCT and MTA Bus Lost Time Accidents per 100 Employees	3.65	3.92	3.79	

¹ 12-Month Average data from February through January.

² 12-month figures shown are totals rather than averages.

³ Data from April through March.

Leading Indicators				
Subways	March	YTD	Goal	YTD as % of Goal
Roadway Worker Protection				
Joint Track Safety Audits -- Actual Count	26	85	340	25.0%
Joint Track Safety Audits -- Compliance Rate	97.9%	98.1%	100.0%	98.1%
Mainline Collision/Derailment Prevention				
Continuous Welded Rail Initiative (# of Track Feet)	6,550	25,019	49,814	50.2%
Station -- Emergency Communication				
Help Point Installations	4	19	92	20.7%
Buses	March	YTD	Goal	YTD as % of Goal
Collision Prevention				
Audible Pedestrian Warning System Pilot	34	40	225	17.8%
Collision Warning System Pilot	40	112	114	98.2%
Vision Zero Employee Training	607	1,689	5,600	30.2%



Safety Report

Statistical results for the 12-Month period are shown below.

Performance Indicator			
Performance Indicator	12-Month Average		
	March 2014 - February 2015	March 2015 - February 2016	March 2016 - February 2017
Customer Collisions Rate for Bridge Customers per Million Vehicles	5.61	6.03	7.74
Customer Injury Collisions Rate for Bridge Customers per Million Vehicles	0.90	1.00	1.14
Employee Accident Reports	295	225	269
Employee Lost Time Injuries Rate per 200,000 worker hours	6.4	4.8	6.6
Construction Injuries per 200,000 worker hours	3.18	2.15	1.96

Leading Indicators				
Roadway Safety	2016		2017	
	February	Year End	February	Year to Date
Workforce Development (# of Participants)	62	740	58	80
Fleet Preventative Maintenance Insp.	122	1281	113	237
Safety Taskforce Inspections	0	13	1	1
Construction Safety	February	Year End	February	Year to Date
Construction Safety Inspections	273	4161	262	553
Fire Safety	February	Year End	February	Year to Date
Fire Code Audits Completed	0	13	0	0
FDNY Liaison Visits	0	25	0	0

Definitions:

Workforce Development provides for focused safety and skills training to all operations, maintenance and staff personnel. Classes feature OSHA 10 and 30 Classes, operations mandatory safety and skills instruction and retraining and specialty training (TIMS, CDL, FDNY instruction, Wrecker Driver Instruction and Roadway Safety Rules).

Fleet Preventative Maintenance Inspections are conducted at each location to improve the customer and worker safety environment. Inspections identify potential hazardous roadway or facility conditions and prescribe corrective actions to eliminate hazards.

Safety Taskforce Inspections are conducted by the joint Labor and Management Committee at each facility throughout the year on a rotating basis. The inspections consist of reviewing past accident and incident experiences/reports and facility safety reports. The Taskforce meets with location management and union representatives and makes a complete tour of the facility. Taskforce is comprised of representatives of the Safety and Operations groups and has representation from each of the represented unions.

Construction Safety Inspections are conducted by an independent safety monitor to ensure that the necessary components of a safe construction are present. Inspections include review of safety organization, job hazard analysis, safe work plans for special high risk activities, personal protective equipment, fire protection, industrial hygiene, and training.

Fire Code Audits are required by the NYS Uniform Fire Prevention Code. They are conducted by the Safety and Health Department at each building and facility throughout the Agency. They feature a review of fire prevention activities and the condition of fire fighting and suppression equipment.

FDNY Liaison Visits are conducted on a regular basis (typically twice a year) whereby local fire companies visit and tour the facilities to become familiar with the structures and buildings and the fire equipment provided. This facilitates the development of strategies for fighting fires and responding to emergencies. Additionally, special drills and training exercises are conducted to test communications and special rescue operations should they be required.

SAFETY OPERATIONS REPORT

For East Side Access - January 2017

Performance		
Injury Rate	2016	2017 YTD
Lost Time Injury Rate per 200,000 worker hours	0.71	0.00
Recordable Injury Rate	1.98	1.18

Performance Indicator - CM	Jan	YTD	Goal	YTD as % of Goal
Daily Safety Walkthrough	195	195	2380	8%
JHAT Audit	8	8	240	3%
Quarterly Safety Audit	0	0	40	0%
Bi Annual ACE Evaluation	0	0	20	0%
Safety Monthly Meeting	8	8	120	7%
Leading Indicators - Contractor	Jan	YTD	Goal	YTD as % of Goal
Training	22	22	200	11%
Toolbox Talks	50	50	480	10%
Site Inspections	254	254	2380	11%
SWP Review/Audit	30	30	-	
New Employee Orientation	143	143	-	
Emergency Preparedness	0	0	20	0%

For Second Avenue Subway - Jan 2017

Performance		
Injury Rate	2016	2017 YTD
Lost Time Injury Rate per 200,000 worker hours	0.37	0.00
Recordable Injury Rate	2.14	0.00

Performance Indicator - CM	Jan	YTD	Goal	YTD as % of Goal
Daily Safety Walkthrough	225	225	1415	16%
JHAT Audit	4	4	120	3%
Quarterly Safety Audit	3	3	20	15%
Bi Annual ACE Evaluation	0	0	10	0%
Safety Monthly Meeting	5	5	60	8%
Leading Indicators - Contractor	Jan	YTD	Goal	YTD as % of Goal
Training	10	10	158	6%
Toolbox Talks	24	24	240	10%
Site Inspections	230	230	1415	16%
SWP Review/Audit	21	21	-	
New Employee Orientation	3	3	-	
Emergency Preparedness	0	0	10	0%

MTA Safety Committee

April 26, 2017



Technology To Enhance Safety



New York City Transit

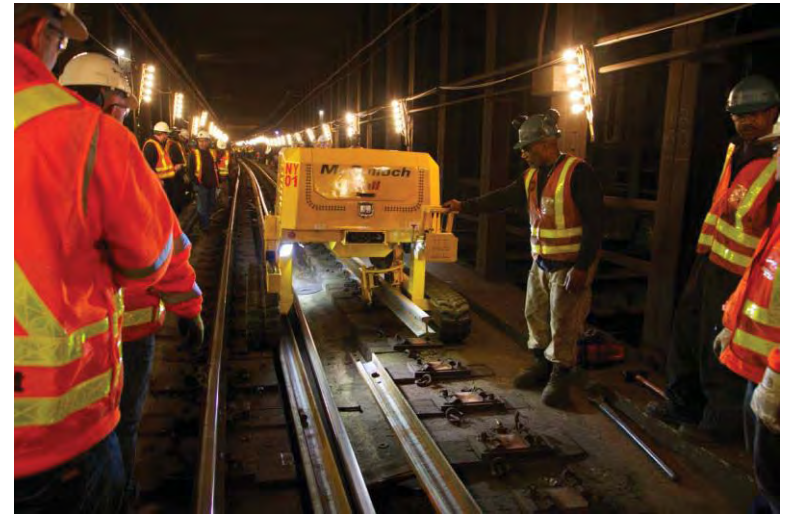
NYCT EFFORTS

- ❑ Safety Technology Task Force and Technology Outreach for Productivity and Safety Group
 - ❑ Cross Departmental Teams
 - ❑ Initiated in 2015
- ❑ Objectives
 - ❑ Reduce Employee/Customer exposure to injuries/accidents
 - ❑ Develop new processes and identify/adopt technology to enhance safety and improve productivity



Department of Subways Initiatives

- ❑ McCulloch Trac Rail Transposer (TRT) "Critter" to move from a manual process of handling rails for CWR to a mechanical means
- ❑ First "Critter" received in April 2016
- ❑ Three "Critters" currently being used



Department of Buses Initiatives

- ❑ Audible Pedestrian Warning Systems – Produces audible voice to alert to pedestrians when making left or right turns
 - ❑ 288 buses in pilot program
- ❑ Collision Warning System – Provides proactive operator warning to prevent potential forward and side collisions
 - ❑ 145 buses in pilot program
- ❑ Leading indicators reported in Transit/Bus and Safety Committees



Track Intrusion Detection Systems Pilot

- Identify and pilot track intrusion detection systems to reduce the risk of contact between trains and individuals / objects on the track in station areas
- First pilot completed July 2016
 - Four vendors / technologies were tested / evaluated
 - Molinari – Laser Detection
 - TelSys – CCTV w/ Video Analytics
 - Honeywell – RF Detection
 - Parsons/Sightlogix – Thermal Imaging (disqualified due to numerous false alarms and equipment failure)
 - Test and evaluation results showed different technologies suited different station configurations.



Track Intrusion Detection Systems Pilot

- To accommodate the wide variety of station configurations and novel nature of this industry, additional vendors/technologies will be tested/evaluated in Phase 2
 - Four vendors/technologies will be tested/evaluated
 - Xtralis – IP camera system with server-side analytics
 - Duos – Laser detection and real-time video analytics
 - EIA – Integrated Thermal Cameras, Laser/Sensors Video System
 - Clearsy – Laser technology pattern recognition and IP cameras
 - Anticipated award June 2017



Additional Initiatives

- ❑ Identify mechanical means of moving heavy equipment down to subway level and up to street level
- ❑ Produce videos of example of current process
- ❑ Video on the MTA website to solicit vendors to propose alternative methods
- ❑ Movex stair climbing device identified



Movex Stair Climbing Program

- ❑ 12 month lease for test and evaluation of 2 units developed
- ❑ Leased Movex stair climbing devices delivered mid February 2017
- ❑ Testing and evaluation underway in Subways



Enhanced Employee Protection System (EEPS)



Metro-North Railroad

What is EEPS?

- The Enhanced Employee Protection System (EEPS) was implemented in 2014
- Effective on the Hudson, Harlem and New Haven Lines, including New Canaan and Danbury Branches
- EEPS is a redundant safety measure which supplements our current on-track protection procedure where the Rail Traffic Controller (RTC) applies blocking devices
- EEPS has become an important part of track safety
- Metro-North received APTA's highest safety award, the Gold Award for Safety, for EEPS



How does EEPS work?

Roadway Worker In Charge (RWIC) requests a track for foul time

A 5-digit code and the Limits of Authority associated with the applied Blocking Device is forwarded to the RWIC

Once the 5-digit code is sent, the Rail Traffic Controller cannot remove the Blocking Device

When the work has been completed and the RWIC has cleared the limits of Authority, the Rail Traffic Controller is notified

Rail Traffic Controller is given the 5-digit Blocking Device Release code by the RWIC and the Blocking Device is removed



EEPS in action

Placeholder for Video



Technology to enhance driver experience (safety and environment)



Bridges and Tunnels

B&T-Open Road Tolling

- Process of Removing Toll Plaza Gates and Toll Plazas has begun
 - To date, we have removed plazas, replaced them with cashless tolling at 3 facilities (Queens Midtown, Hugh L. Carey Tunnels and Henry Hudson Bridge)
 - Cashless tolling 'go live' scheduled for two Rockaway Bridges next week
 - RFK Bridge scheduled for this summer and the remaining three bridges (Bronx Whitestone, Throgs Neck and Verrazano Narrows bridges are scheduled for Fall of this year.
 - By end of this year, all our Bridges and Tunnels will be switched to cashless tolling



B&T-Open Road Tolling



B&T-Open Road Tolling



B&T-Open Road Tolling

- The Benefits of Open Road Tolling:
 - Improved traffic safety
 - Improved employee safety
 - Reduced drive time on bridges/tunnels
 - Improved air quality



B&T-Open Road Tolling

□ Use of additional Technological Advances

- Partnering with a smartphone travel application to improve B&T's traffic incident response and to more directly provide the public with information about facility conditions.
- Implementing TRANSCOM enhancements to improve the availability of travel time information displayed on roadway variable message signage.
- Piloting connected vehicle technology application to improve over height vehicle detection capabilities for tunnels.



Technology Based Training Applications



Long Island Rail Road

E Train

- Support Management, Administrative, and Computer Development Needs
- Transportation Services - customized curriculum for all levels of management for Talent Management
- Available 24/7
- Available on or off the property
- 2,500 off-the-shelf courses



Custom LIRR Training

- Available 24/7
- Available on or off the property
- Mobile Hotspots (bring training anywhere)
- Wifi infrastructure being built to support all forms of technology based training
- Traditional classrooms being converted into blended learning environments for simultaneous instructor led and technology instructional methods, i.e. Stormwater Management



What's Available?

- ❑ Transportation
 - ❑ 49 CFR Part 228 Electronic Hours of Service
 - ❑ Fare Collection
 - ❑ Lessons (13), Virtual Bulletin Boards (VBB) (11), Training Aids (16)
- ❑ Engineering
 - ❑ 49 CFR Part 217 Railroad Operating Rules
 - ❑ 49 CFR Part 220 Railroad Communications
 - ❑ Lessons (2), Training Aids (4), VBB (5)
- ❑ Maintenance of Equipment
 - ❑ 49 CFR Part 218 Railroad Operating Practices
 - ❑ Lessons (4), Lesson Plans (8)
- ❑ Safety Department
 - ❑ Hazardous Waste Management
 - ❑ Lessons (3), Resource Library (7)
- ❑ Stations
 - ❑ Station Ticket Issuing Machine
 - ❑ Lessons (2)
- ❑ Corporate
 - ❑ Corporate Policies & Procedures



Virtual Bulletin Boards

Transportation Training Aids - Internet Explorer

Transportation Training Aids
Study & Review Material for Transportation Employees

MTA Long Island Rail Road
Employee Training & Corporate Development

PHYSICAL CHARACTERISTICS MAPS

ASC MALFUNCTIONS

RULES IN EFFECT

Pre-Conductor Book of Rules Study Guide

AUTHORITIES

PC MAPS

ASC MALFUNCTIONS

RULES IN EFFECT

PRE-CONDUCTOR BOR

AUTHORITIES

YARD MAPS

PC TRAINING AID

MOST RESTRICTIVE

JAMAICA & VICINITY

F & HAROLD MAP

SIGNAL EXAM

RULE 92 & S1-1092

PERIODIC AID

RULES PRACTICE EXAM

JAMAICA MAPS

EXIT MENU

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BACK NEXT



Virtual Bulletin Boards

The screenshot shows a web browser window titled "Jamaica Maintainer's Manuals - Internet Explorer". The page header includes the MTA logo and "Long Island Rail Road Corporate Safety & Training Department". The main content area displays three manual covers, each with a "Click to open" link below it. The covers are for Book 1 (System Familiarization), Book 2 (Maintenance and Troubleshooting), and Book 3 (System Configuration and Programming). At the bottom of the page, there is a navigation bar with buttons for "EXIT", "MENU", "BACK", and "NEXT". A text prompt at the bottom of the main content area reads: "Click an image to view the manual or NEXT to view the Third-Party Vendor Manuals".



MTA Safety Committee

April 26, 2017

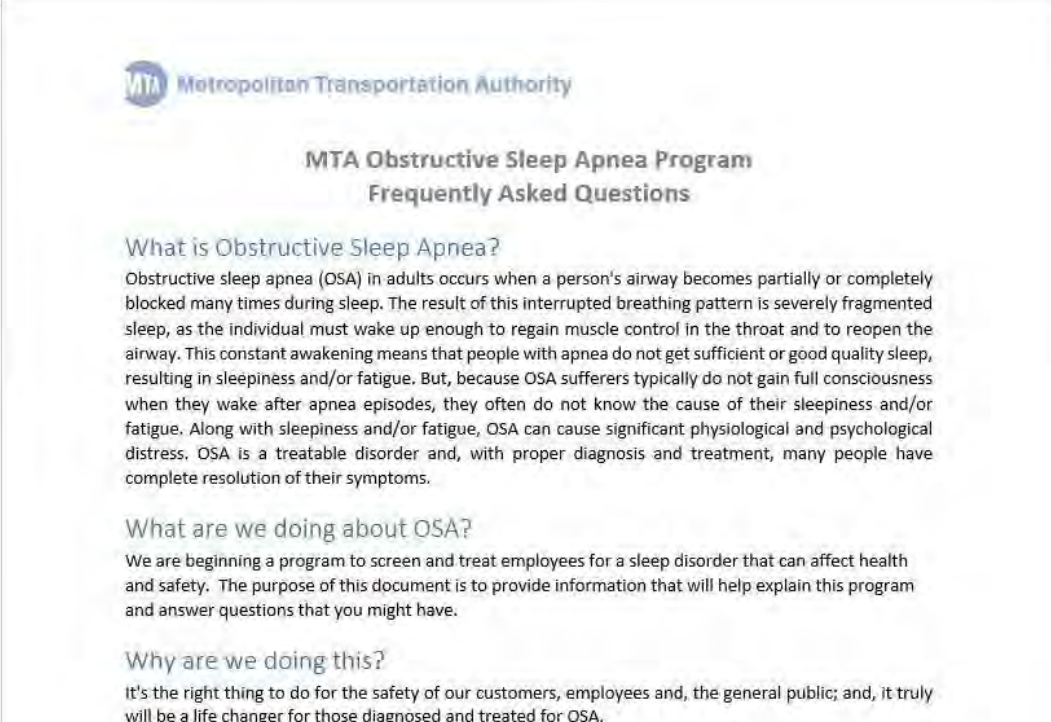


Update on Sleep Disorders, Screening and Treatment



Moving beyond a Pilot Program

- Established program docs
- Created FAQs



The screenshot shows the MTA logo and the title "MTA Obstructive Sleep Apnea Program Frequently Asked Questions". It contains three sections: "What is Obstructive Sleep Apnea?", "What are we doing about OSA?", and "Why are we doing this?".

MTA Metropolitan Transportation Authority

**MTA Obstructive Sleep Apnea Program
Frequently Asked Questions**

What is Obstructive Sleep Apnea?
Obstructive sleep apnea (OSA) in adults occurs when a person's airway becomes partially or completely blocked many times during sleep. The result of this interrupted breathing pattern is severely fragmented sleep, as the individual must wake up enough to regain muscle control in the throat and to reopen the airway. This constant awakening means that people with apnea do not get sufficient or good quality sleep, resulting in sleepiness and/or fatigue. But, because OSA sufferers typically do not gain full consciousness when they wake after apnea episodes, they often do not know the cause of their sleepiness and/or fatigue. Along with sleepiness and/or fatigue, OSA can cause significant physiological and psychological distress. OSA is a treatable disorder and, with proper diagnosis and treatment, many people have complete resolution of their symptoms.

What are we doing about OSA?
We are beginning a program to screen and treat employees for a sleep disorder that can affect health and safety. The purpose of this document is to provide information that will help explain this program and answer questions that you might have.

Why are we doing this?
It's the right thing to do for the safety of our customers, employees and, the general public; and, it truly will be a life changer for those diagnosed and treated for OSA.



Where are we Now?

- ❑ Contract awarded to 4 vendors to support testing and treatment
 - ❑ Screening now underway
 - ❑ Target population approx. 20,000
 - ❑ Risk-based, tiered approach
 - ❑ Wellness program to include sleep education
-

In Service for MTA Physicians

- Gathered all MTA Physicians for In-Service training devoted to the importance of sleep, sleep health, and sleep disorders
- More than an OSA program
- Blending wellness efforts with clinical assessment

In Service for MTA Physicians



Sleep Apnea Risk Factors

- Obesity
- Increasing age
- Male gender
- Upper airway abnormalities
- Family history
- Alcohol or sedative use
- Smoking
- Associated conditions

□ Demographics

- Male
- Average age 51
- Sedentary
- Smoker
- Poor eating habits

□ Medical conditions

- Less healthy than average
- >2 medical conditions
- Cardiovascular disease present



What if an Employee is Diagnosed?

- We know employees have OSA
- Important to develop trust
- Mitigate risk by screening quickly
- Keep employees working

MTA Safety Committee

April 26, 2017

