Los Angeles County Metropolitan Transportation Authority California

# OPERATIONS MONTHLY RAIL PERFORMANCE REPORT

#### NOVEMBER 2016



# METRO RAIL PERFORMANCE – NOVEMBER 2016

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#### Metro Rail Scorecard Overview

Metro operates heavy rail, the Red and Purple Lines, from Union Station to North Hollywood and Union Station to Wilshire/Western. Data for Red and Purple lines are reported under Metro Red line in this report.

Metro also operates four light rail lines: Blue Line from Downtown to Long Beach, Green Line along the 105 freeway, Gold Line from Azusa to East Los Angeles, and Expo Line from Los Angeles to Santa Monica.

Metro Rail is responsible for the operation of approximately 104 heavy rail cars and 203 light rail cars carrying nearly 110 million passengers each year.

Also included in this report are Key Performance Indicators for Wayside, which is in the process of being developed.

				FY 2017	FY 2017	FYTD	Sep	Oct	Nov
Measurement	FY 2014	FY 2015	FY 2016	Target	YTD	Status	Month	Month	Month
Systemwide									
On-Time Pullouts	99.55%	99.67%	99.63%	99.50%	99.59%		99.47%	99.96%	99.33%
Mean Miles Between Chargeable Mechanical Failures	28,829	34,524	30,482	27,911	29,136		28,862	34,320	34,270
In-Service On-time Performance	97.92%	98.39%	98.10%	98.00%	98.34%		98.52%	98.67%	96.96%
Service Delivery Ratio	99.12%	99.35%	99.22%	99.25%	99.29%		99.57%	99.21%	99.10%
Traffic Accidents Per 100,000 Train Miles	1.47	1.18	1.17	0.00	0.98		0.71	1.63	0.13
CPUC Reportable Accidents per 100,000 Train Miles	0.10	0.43	0.60	0.67	0.35		0.28	0.54	0.13
Passenger Accidents per 100,000 Boardings	0.025	0.013	0.016	0.009	0.027		0.000	0.053	0.032
Complaints per 100,000 Boardings	0.91	0.78	1.43	1.12	2.04		1.95	1.86	2.10
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours <sup>1, 2</sup>	15.35	11.11	10.97	10.42	12.45	0	8.90	14.24	15.68
Lost Work Days per 200,000 Exposure Hours <sup>1, 2</sup>	861	880	482	458.16	695		961	542	-
OSHA Injuries per 200,000 Exposure Hours <sup>1, 2</sup>	8.18	6.68	6.32	6.00	8.73		5.93	13.29	-
Wayside									
Overdue Work Orders	152	300	1192	N/A	2454	N/A	416	503	952
Overdue Preventive Maintenace Work Orders	0			N/A	793	N/A	110	128	232
Completed Inspections %	0.994135	0.9951	0.995713	N/A	0.995913	N/A	0.992674	1	0.98773
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	9.28137	9.07046		4.53	4.78374	4.78374	8.11463	7.89391	4.12212
Lost Work Days per 200,000 Exposure Hours <sup>1</sup>	178.874	308.865	147.968	140.57	58.943	58.943	129.712	50.8368	0
OSHA Injuries per 200,000 Exposure Hours <sup>1</sup>	6.31133	8.28172	4.39913	4.18	4.9424	4.9424	4.05731	7.89391	0
Blue Line									
On-Time Pullouts	99.37%	99.41%	99.59%	99.50%	99.59%		99.25%	100.00%	99.85%
Mean Miles Between Chargeable Mechanical Failures	18,731	23,716	19,240	19,572	16,918	0	15,526	20,992	19,612
In-Service On-time Performance	95.84%	97.28%	96.10%	97.00%	96.93%	0	97.59%	98.47%	94.33%
Service Delivery Ratio	98.36%	98.88%	98.41%	98.46%	98.84%		99.22%	99.15%	98.15%
Traffic Accidents Per 100,000 Train Miles	2.97	2.48	2.38	0.00	1.83		1.34	2.62	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.00	0.89	1.39	1.34	0.65		0.67	0.66	0.00
Passenger Accidents per 100,000 Boardings	0.058	0.034	0.016	0.006	0.038		0.000	0.048	0.050
Complaints per 100,000 Boardings	1.10	0.90	1.33	1.09	1.70		1.84	1.50	2.30
New Workers' Compensation Indemnity Claims per	17.46	15.10	15.08	15.58	17.46		5.38	15.51	21.57
Lost Work Days per 200,000 Exposure Hours <sup>1</sup>	990	1,622	797	786	938		998	845	-
OSHA Injuries per 200,000 Exposure Hours <sup>1</sup>	5.71	10.64	6.79	9.58	6.84		5.38	0.00	-

<sup>1</sup> There is a One Month lag in reporting this data

<sup>2</sup> Includes Operations, RFS and Wayside

O Green - High probability of achieving the target (on track). Meets Target at 100% or better.

○ Yellow - Uncertain if the target will be achieved -- slight problems, delays or management issues. Falls below Target 70 - 99%.

Red - High probability that the target will not be achieved -- significant problems and/or delays. Falls below Target >70%.

Na	EV 0044	EV 0045	EV 2040	FY 2017	FY 2017	FYTD Status	Sep Month	Oct	Nov
Measurement	FY 2014	FY 2015	FY 2016	Target	YTD	Status	Month	Month	Month
Red Line									
On-Time Pullouts	99.72%		99.79%	99.50%	100.00%		100.00%	100.00%	100.00%
Mean Miles Between Chargeable Mechanical Failures	63,099		94,312	112,652	97,468		81,557	296,934	85,507
In-Service On-time Performance	98.91%		99.45%	99.50%	99.57%		99.72%	99.79%	99.58%
Service Delivery Ratio	99.57%		99.71%	99.71%	99.82%		99.89%	99.94%	99.88%
Traffic Accidents Per 100,000 Train Miles	1.01	0.47	0.75	0.00	0.68		0.87	0.84	0.86
CPUC Reportable Accidents per 100,000 Train Miles	0.00	0.07	0.07	0.60	0.00		0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.006	0.002	0.002	0.003	0.005		0.000	0.000	0.026
Complaints per 100,000 Boardings	0.60	0.54	0.57	0.56	0.85		0.86	0.91	0.82
New Workers' Compensation Indemnity Claims per	20.22	6.20	16.43	13.29	13.64	$\bigcirc$	11.06	21.04	15.82
*Lost Work Days per 200,000 Exposure Hours	927	649	526	556	1,140		1,889	867	-
*OSHA Injuries per 200,000 Exposure Hours	11.79	3.54	7.99	6.55	7.24	$\bigcirc$	11.06	10.52	-
Green Line									
On-Time Pullouts	99.69%	99.32%	99.49%	99.50%	99.86%		100.00%	99.78%	100.00%
Mean Miles Between Chargeable Mechanical Failures	19,513	21,054	19,238	19,911	18,420	0	18,497	18,831	16,983
In-Service On-time Performance	97.85%	97.39%	98.52%	98.20%	98.47%		97.92%	98.37%	98.99%
Service Delivery Ratio	99.57%	99.50%	99.59%	99.62%	99.63%		99.52%	99.73%	99.75%
Traffic Accidents Per 100,000 Train Miles	0.49	0.21	0.42	0.00	0.83		0.00	1.66	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.00	0.07	0.07	0.18	0.00		0.00	0.00	0.00
Passenger Accidents per 100,000 Boardings	0.023	0.024	0.034	0.011	0.089		0.000	0.000	0.117
Complaints per 100,000 Boardings	1.15	0.88	1.53	1.30	2.21		2.04	2.58	1.88
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	16.51	7.32	7.18	9.27	6.19	•	0.00	0.00	0.00
*Lost Work Days per 200,000 Exposure Hours	1,299	479	228	195	1,035		1,208	828	-
*OSHA Injuries per 200,000 Exposure Hours	11.30	4.07	3.19	2.34	5.19		0.00	0.00	-
Gold Line									
On-Time Pullouts	99.56%	99.98%	99.68%	99.50%	99.75%		100.00%	100.00%	98.96%
Mean Miles Between Chargeable Mechanical Failures	45,894	44,171	40,426	51,665	32,411		40,000	30,271	65,357
In-Service On-time Performance	98.03%	98.56%	97.60%	97.50%	97.72%		96.34%	97.45%	97.47%
Service Delivery Ratio	99.03%		99.11%	99.16%	99.03%	0	99.55%	98.35%	99.11%
Traffic Accidents Per 100,000 Train Miles	1.03	1.14	0.99	0.00	0.51		0.00	1.29	0.00
CPUC Reportable Accidents per 100,000 Train Miles	0.00	0.30	0.60	0.50	0.17		0.00	0.43	0.00
Passenger Accidents per 100,000 Boardings	0.052	0.007	0.039	0.035	0.028	$\bigcirc$	0.000	0.140	0.000
Complaints per 100,000 Boardings	1.04		2.73	2.26	2.83		2.72	2.73	2.15
New Workers' Compensation Indemnity Claims per 200,000 Exposure Hours	14.98	15.96	11.87	12.20	16.44		10.81	15.86	16.67
*Lost Work Days per 200,000 Exposure Hours	1,460	1,068	766	808	1,149		1,529	592	-
*OSHA Injurios per 200 000 Expediure Hours	0.40	2.02	0.00	40.07	0.55		0.00	40.57	

Expo Line								
On-Time Pullouts	-	-	99.53%	99.50%	98.18%	96.67%	100.00%	97.96%
Mean Miles Between Chargeable Mechanical Failures	-	-	18,114	19,572	25,570	25,499	31,499	28,964
In-Service On-time Performance	98.70%	99.14%	98.61%	97.05%	98.36%	99.41%	98.63%	92.51%
Service Delivery Ratio	99.45%	99.64%	99.56%	99.65%	99.13%	99.50%	98.84%	98.71%
Traffic Accidents Per 100,000 Train Miles	1.17	1.02	0.74	0.00	1.28	2.16	1.79	0.00
CPUC Reportable Accidents per 100,000 Train Miles	1.17	1.02	0.50	0.37	1.10	1.08	1.79	0.68
Passenger Accidents per 100,000 Boardings	0.000	0.000	0.019	0.000	0.032	0.000	0.165	0.000
Complaints per 100,000 Boardings	1.53	1.13	3.38	1.87	5.30	4.79	3.97	5.60
New Workers' Compensation Indemnity Claims per	-	24.97	8.44	0.00	20.28	17.51	24.21	40.65
*Lost Work Days per 200,000 Exposure Hours	-	937	73	0	195	89	266	
*OSHA Injuries per 200,000 Exposure Hours	-	-	5.63	0.00	25.60	17.51	64.55	

3.83

9.29

10.07

9.55

0.00

10.57

\* There is One Month lag in reporting this data

\*OSHA Injuries per 200,000 Exposure Hours

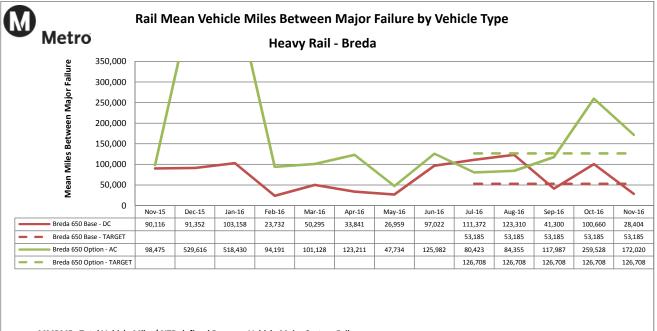
Green - High probability of achieving the target (on track). Meets Target at 100% or better.

O Yellow - Uncertain if the target will be achieved -- slight problems, delays or management issues. Falls below Target 70 - 99%.

9.12

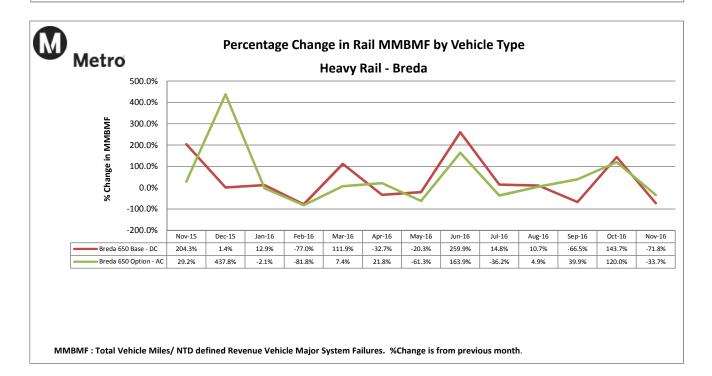
Red - High probability that the target will not be achieved -- significant problems and/or delays. Falls below Target >70%.

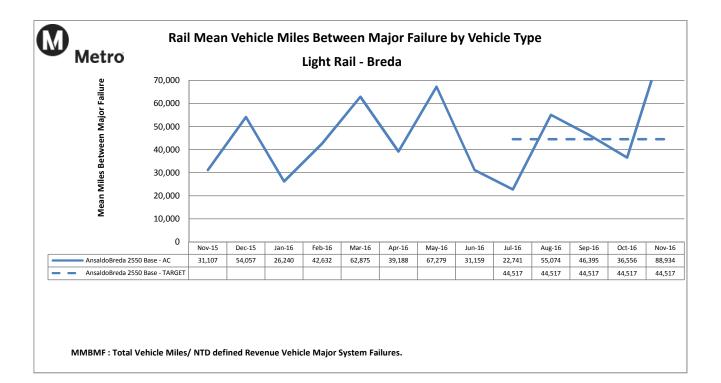
# **METRO RAIL PERFORMANCE – NOVEMBER 2016**

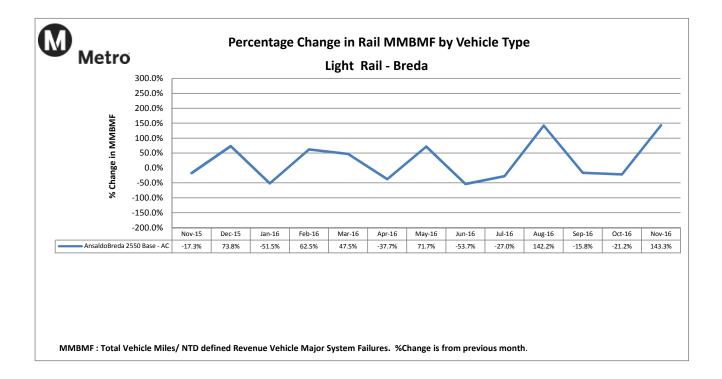


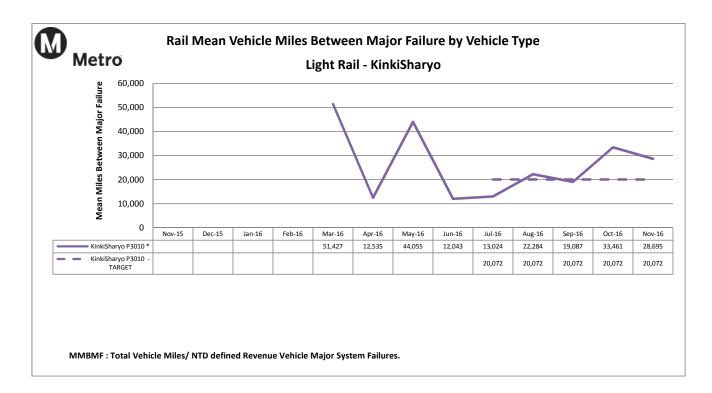
# **Rail Performance by Vehicle Type**

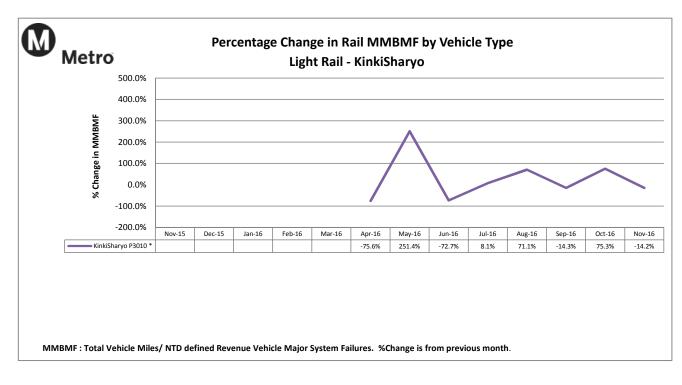
MMBMF : Total Vehicle Miles/ NTD defined Revenue Vehicle Major System Failures.



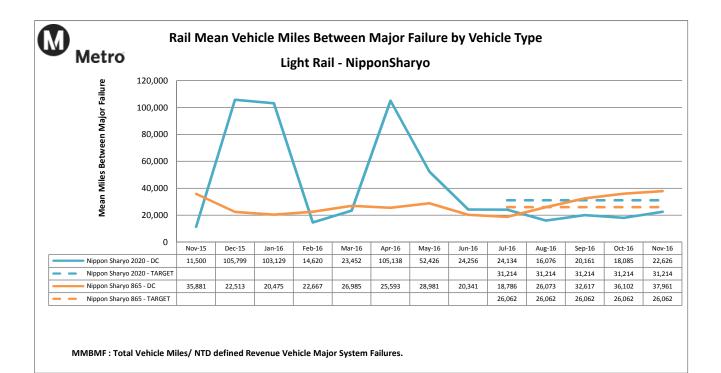


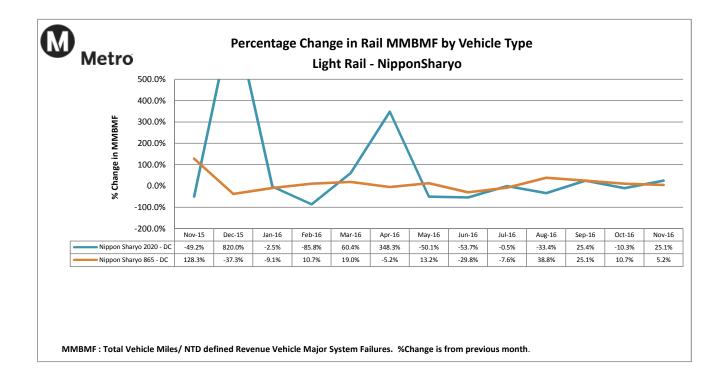


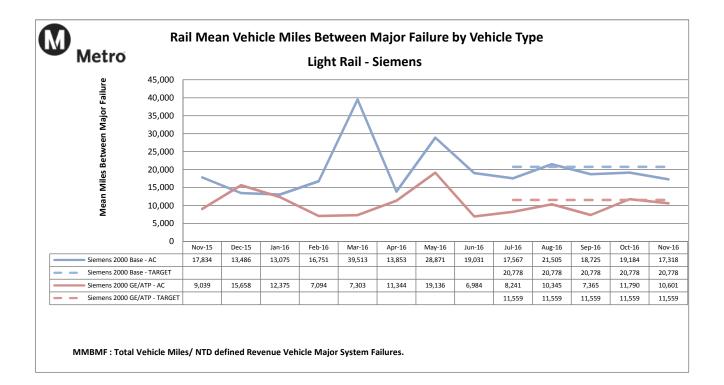


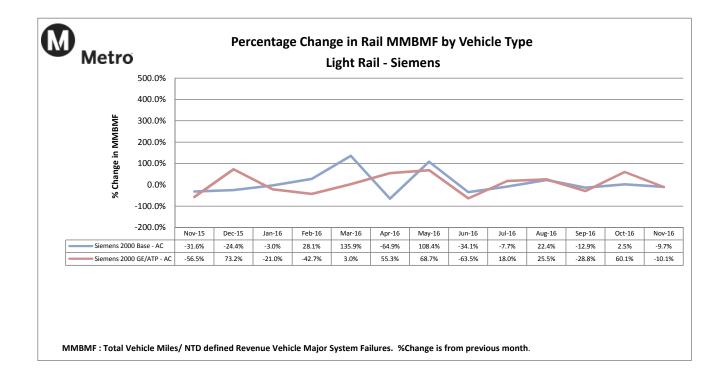


\* KinkiSharyo rolling stock began service March 2016







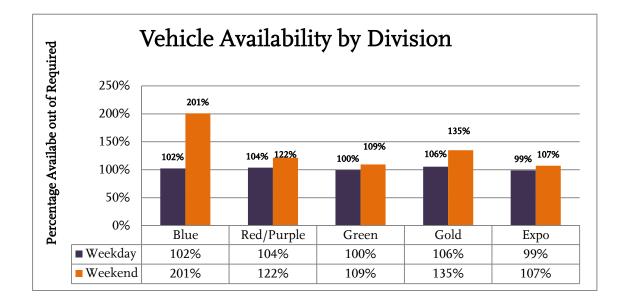


Number of Rail Vehicle Type by		Red /			
Division	Blue	Purple	Green	Gold	Ехро
AnsaldoBreda 2550 Base - AC				50	
Breda 650 Base - DC		30			
Breda 650 Option - AC		74			
KinkiSharyo P3010				10	33
Nippon Sharyo 2020 - DC	14				1
Nippon Sharyo 865 - DC	43				11
Siemens 2000 Base - AC			29		
Siemens 2000 GE/ATP - AC	17				6
TOTALS	74	104	29	60	51

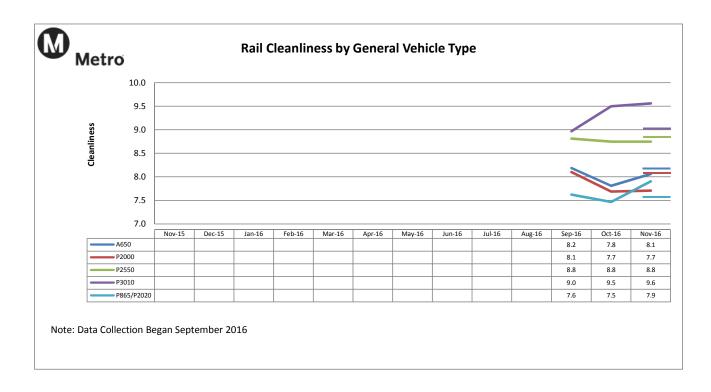
# **Rail Fleet Distribution – NOVEMBER 2016**

Blue			
Day Type	Vehicles Required	Average Available	Average % Available
Weekday	58	60	102%
Weekend	26	52	201%
Red/ Purple			
Day Type	Vehicles Required	Average Available	Average % Available
Weekday	74	77	104%
Weekend	54	66	122%
Green		•	
Day Type	Vehicles Required	Average Available	Average % Available
Weekday	22	22	100%
Weekend	14	15	109%
Gold			
Day Type	Vehicles Required	Average Available	Average % Available
Weekday	46	49	106%
Weekend	28	38	135%
Expo		•	-
Day Type	Vehicles Required	Average Available	Average % Available
Weekday	39	38	99%
Weekend	35	37	107%

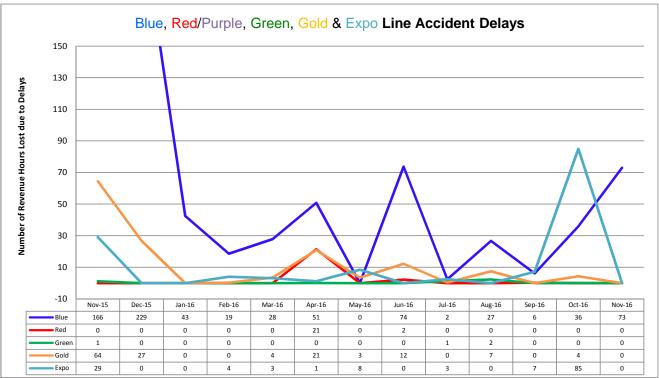
# Vehicle Availability Systemwide



# **Cleanliness by Vehicle Type**

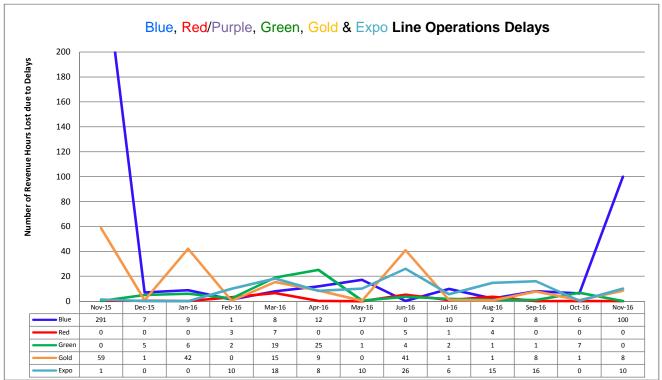


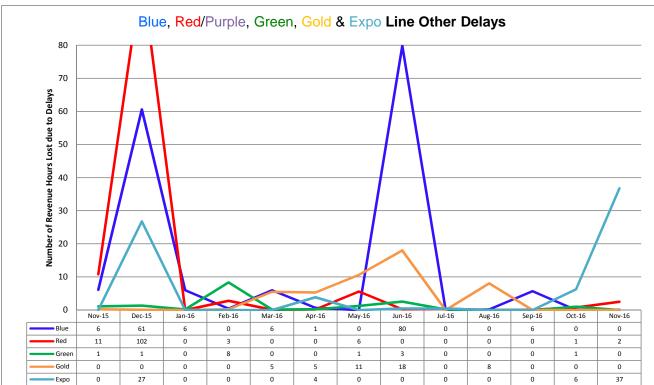
# **RAIL DELAYS BY CATEGORY - SYSTEMWIDE**



#### **Revenue Hours Lost Related to - ACCIDENTS**

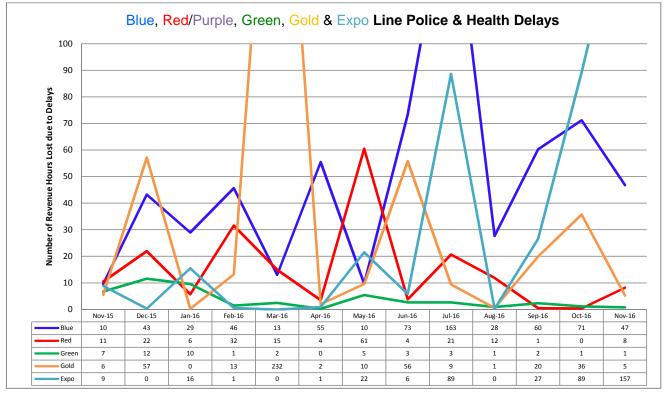
#### **Revenue Hours Lost Related to - OPERATIONS**



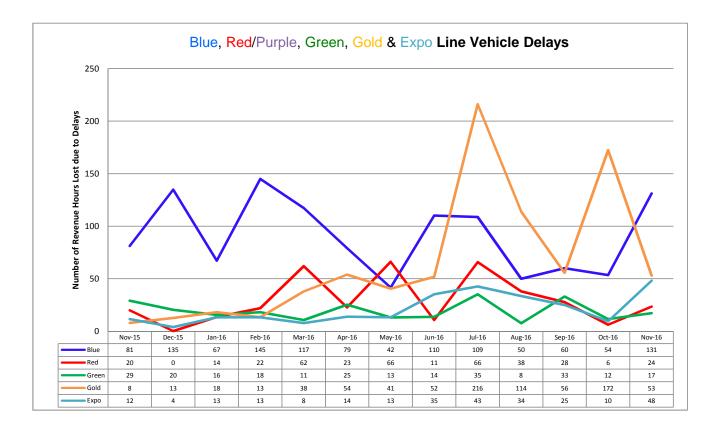


**Revenue Hours Lost Related to - OTHER** 

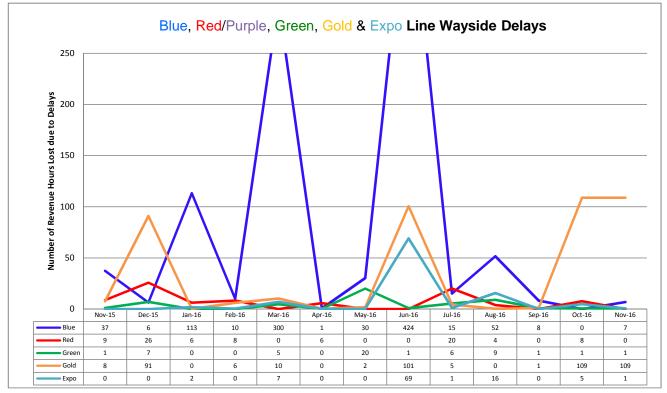
### **Revenue Hours Lost Related to - POLICE & HEALTH**



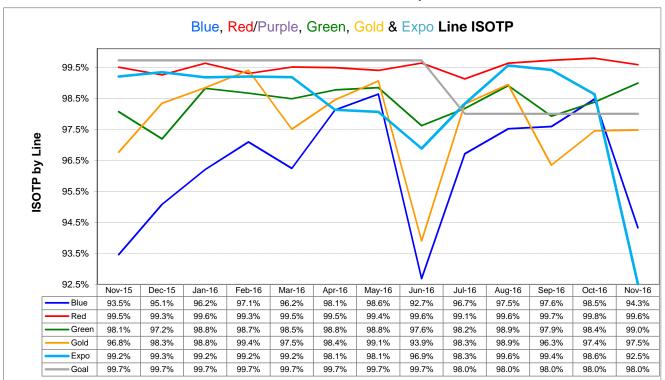
#### **Revenue Hours Lost Related to - Vehicle Delays**



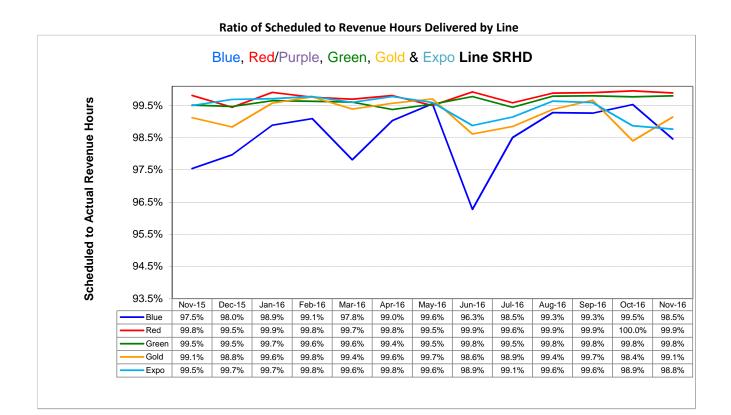
#### **Revenue Hours Lost Related to - WAYSIDE**

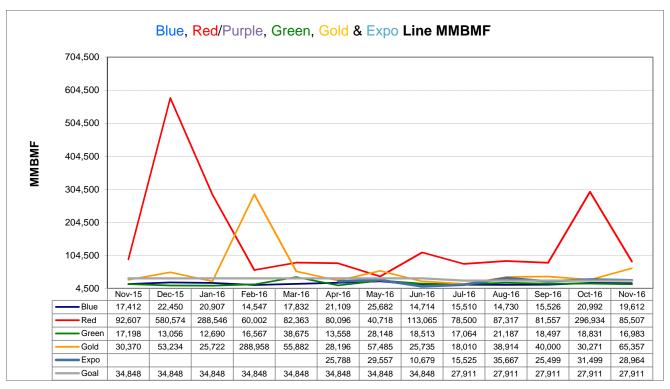


# **Rail Service Performance**



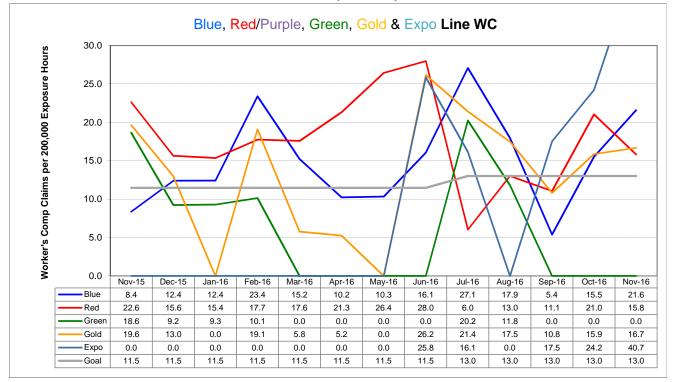
#### In Service On Time Performance by Line

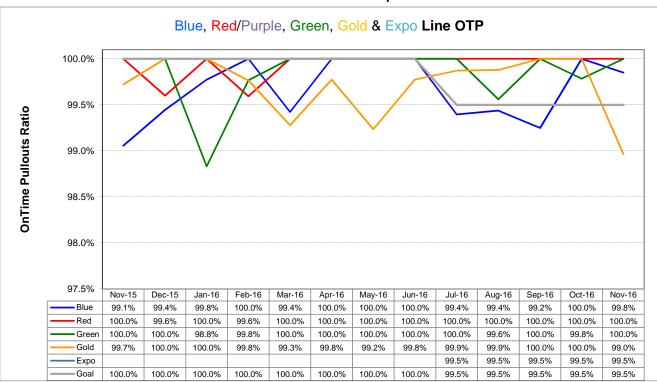




#### Mean Miles Between Mechanical Failures by Line

Workers Comp Claims by Line

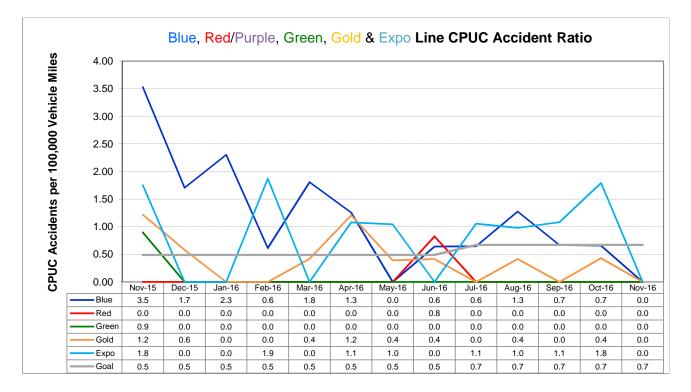




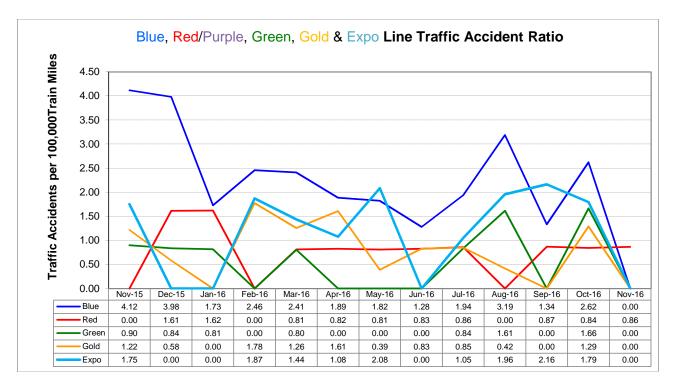
**On-Time Pullouts Ratio by Line** 

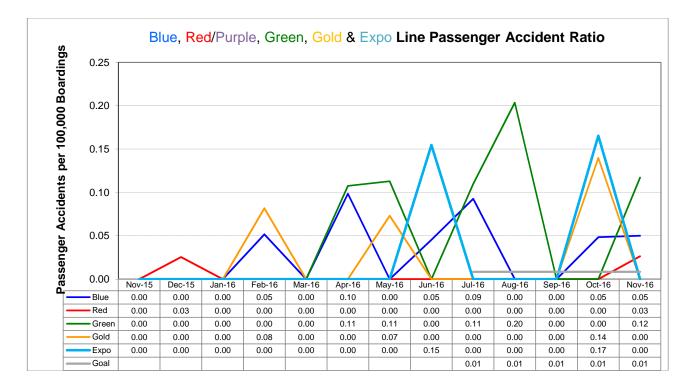
# **Rail Safety Performance**

### **CPUC REPORTABLE ACCIDENTS PER 100,000 TRAIN MILES**



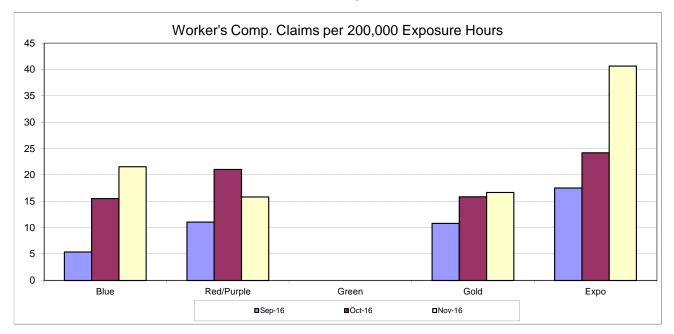
#### **TRAFFIC ACCIDENTS PER 100,000 TRAIN MILES**





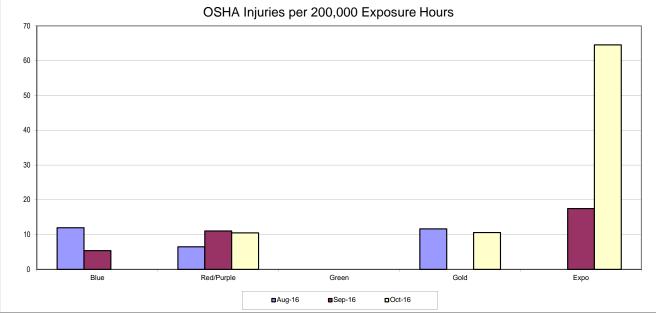
### PASSENGER ACCIDENTS PER 100,000 BOARDINGS

# Worker's Comp. Claims Sep 2016 - Nov 2016 3 Month Comparison

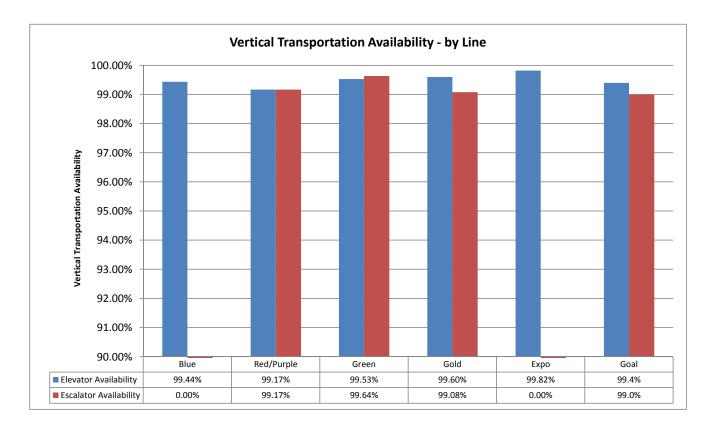


# Lost Work Days and OSHA Injuries Aug 2016 - Oct 2016 3 Month Comparison





Note: There is a one month lag in Lost Work Days and OSHA data.



# Systemwide Vertical Transportation Availability by Line

Note: No Escalators at Blue and Expo Lines

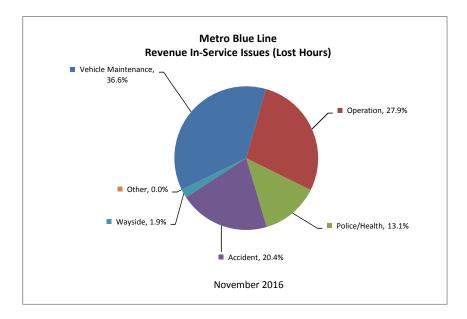
# **BLUE LINE**

Out of a total of 19,343 hours operated, there were approximately 358 total hours of service delays.

	Revenue		
November 2016 Service Hours *	Hours	Per Cent	
Revenue Hours without Delays	18,985	98.1%	
Cancelled + Delayed Hours	358	1.9%	
Total Revenue Hours	19,343	100.0%	

Summary of the major contributors:	Count	Hours	Per Cent
Operations	8	100.0	27.9%
Accidents	1	73.0	20.4%
Vehicle Maintenance	32	131.1	36.6%
Wayside	5	7.0	1.9%
Police & Health	16	46.8	13.1%
Other	1	0.1	0.0%
Total	63	358.0	100.0%

\* Data from M3 used to report Service Delays is under review for accuracy



# November 2016 Blue Line major delay contributors were as follows:

# **Operations Incidents:**

# 11/6/2016 9:40:00 AM - Incident# 2797191 (8 lost trips, 1,311 lost minutes)

Due to a train shortage within the Expo revenue trains, train 109 was used as an Expo revenue train, to accommodate the heavy ridership which was experienced by the Rams football game.

# 11/6/2016 11:30:00 AM - Incident# 2797153 (26 lost trips, 4,261 lost minutes)

Per J. Johnson, MBL Director of Train Operations, turn back trains from Willowbrook station back to 7th Metro

# 11/14/2016 2:49:00 PM - Incident# 2800278 (0 lost trips, 35 lost minutes)

Afternoon "Roll Out" train were delayed due to a Signal Power loss from Artesia Station to Wilow station, both

# 11/18/2016 9:14:00 AM - Incident# 2802181 (0 lost trips, 16 lost minutes)

Delays to Blue Line due to Expo Train 616 losing cab signals at 7th & Metro Tailtrack.

# 11/19/2016 9:51:00 AM - Incident# 2802686 (0 lost trips, 9 lost minutes)

White pit bull on board train, passengers afraid of it. Train 101 T-262 108-122 SB, Willowbrookr Station, Track 2

# 11/20/2016 6:49:00 AM - Incident# 2802400 (0 lost trips, 8 lost minutes)

Train 104 no movement due to friction brake fault at Imperial pocket track 1

# 11/25/2016 6:21:00 AM - Incident# 2804362 (0 lost trips, 3 lost minutes)

Train operator (T-262) proceeded northbound from Washington station without receiving proper authorization Train 114 T-262 135-115 Washington Station, Trk. 1, northbound

# 11/30/2016 4:31:00 PM - Incident# 2806591 (2 lost trips, 355 lost minutes)

Train-614 T-449 Cars (1037)-1040 Northbound, Platform #1 7th & Metro Center Train Delay at 7th & Metro due to Expo Train with no movement.

# Accidents:

# 11/16/2016 5:46:00 AM - Incident# 2800973 (26 lost trips, 4,381 lost minutes)

Reports of smoking brakes at 14th and Long Beach Blvd. Train #101 T-182 (162)-123-153 14th Street and Long Beach Blvd, Track 2, SB

# Vehicle Maintenance Incidents:

11/3/2016 4:58:00 AM - Incident# 2796015 (3 lost trips, 501 lost minutes) Propulsion and dynamic fault with speed restriction Train 106 T-335/T-259 (302A)-242-248 Del Amo N/B Trk 1 12 min delay

# 11/3/2016 5:15:00 AM - Incident# 2796019 (1 lost trip, 167 lost minutes)

Sever flapping noise from the A Cab. Possible flats. Train 111 T-152 (145)-126-156 Willow N/B trk 1 Service cancelled from Willowbrook to Transit Mall. +12 minutes.

# 11/4/2016 7:22:00 AM - Incident# 2796537 (1 lost trip, 187 lost minutes)

No Movement/Friction brakes on LRV 108A Train 111 T-355 LRV'S (108A) 109-158 9 street Diamond, Track 1, Northbound

# 11/4/2016 8:30:00 AM - Incident# 2796551 (10 lost trips, 1,693 lost minutes)

Train 111 reporting doors problem on LRV 109 Train 111 T-353 LRV'S (109) 158 Willowbrook Station, Track 1, Northbound.

# 11/4/2016 10:49:00 AM - Incident# 2796610 (1 lost trip, 167 lost minutes)

Pantograph non train 106 was lock on the down position on LRV 143B Train 106 T-282 LRV'S (143B) 129-131 Willow Track 2, southbound.

#### 11/5/2016 8:40:00 AM - Incident# 2796918 (0 lost trips, 15 lost minutes)

Operator reports of rail car having flats. Train 102 T-281 (104A)133 Compton Station, Trk.2, southbound

#### 11/7/2016 6:22:00 AM - Incident# 2797354 (1 lost trip, 168 lost minutes)

Operator reports a speed restriction. Train 103 T-335 (131)-143-129 S/B Track 2 @ 103rd

#### 11/9/2016 8:18:00 AM - Incident# 2798342 (2 lost trips, 334 lost minutes)

Propulsion / Dynamic Brakes 160-(159)-145 Train 101 T-102 Transit Mall, Northbound, Track 2

#### 11/10/2016 2:38:00 PM - Incident# 2798999 (0 lost trips, 12 lost minutes)

Car Body (Interior/Exterior) Side panel in articulated section is broken. 235-(230)-229 Train 105 T-164 7MC, Southbound, Track 2

# 11/12/2016 1:36:00 AM - Incident# 2799514 (1 lost trip, 119 lost minutes)

Reports of smoking brakes T-300 (126B)-122 Pacific Coast highway Station, Track 1

# 11/14/2016 6:59:00 AM - Incident# 2800087 (0 lost trips, 18 lost minutes)

Train Delay (Train 614 no movement from Platform 1 to TT2 at 7MC).

### 11/14/2016 7:06:00 AM - Incident# 2800089 (0 lost trips, 12 lost minutes)

Doors (No Movement) (239)-245-240 Train 111 T-43 1st Street, Southbound, Track 2

# 11/14/2016 7:18:00 AM - Incident# 2800093 (0 lost trips, 18 lost minutes)

Doors (No movement) (233)-241-249 Train 119 T-183 103rd, Northbound, Track 1

# 11/14/2016 8:15:00 AM - Incident# 2800088 (2 lost trips, 335 lost minutes)

Operator reports of door problems and unable to cut doors out.

Train 114 T-281 (149)126-135 San Pedro Station, Trk 1, Northbound

#### 11/15/2016 8:56:00 AM - Incident# 2800508 (0 lost trips, 8 lost minutes)

Train-115 T-118 Cars 233-(231)-244 Northbound, Track #1 103rd Street Station Doors wouldn't open in middle car.

#### 11/16/2016 4:58:00 AM - Incident# 2800909 (1 lost trip, 168 lost minutes)

Doors will not open. Train 102 Train T-164 Cars (137),141,130 7th and Metro,Tail Track 2,Southbound

#### 11/16/2016 5:35:00 AM - Incident# 2800990 (8 lost trips, 1,385 lost minutes)

Reports loss of power Train # 102 T-164 (137)-141-130 SB, Willowbrook Station, Track #2

#### 11/18/2016 7:01:00 PM - Incident# 2802097 (1 lost trip, 176 lost minutes)

Train-104 T-485 Cars 166-(125B)-149 Southbound Track #2 Del Amo Station No Fault - No Movement (Blown Motor Fuse)

#### 11/20/2016 2:03:00 PM - Incident# 2802515 (1 lost trip, 164 lost minutes)

Train has reoccurring propulsion faults. Train 107, T-211 (105A)-158-163 Track 1, Compton, North

#### 11/21/2016 8:50:00 AM - Incident# 2802848 (1 lost trip, 168 lost minutes)

Reports recurring propulsion dynamic brake fault on 234. Doors 5/6 and 1/2 C/O on 234A; doors 3/4 C/O on 235. Train 106 T-493 (234A)-302-(235B) SB, Willow Station, Track 2

#### 11/21/2016 4:45:00 PM - Incident# 2803065 (1 lost trip, 168 lost minutes)

Field Supervisor (R-084) reports of rail car being dirty by doors 5 & 6 Train 107 TT-415 (168A)157 7th Metro Ctr., Trk. 1, northbound

#### 11/22/2016 6:56:00 PM - Incident# 2803534 (2 lost trips, 335 lost minutes)

No Movement Train #126 T-183 (135A)-160-128 NB, Willow Station, Track #1

#### 11/23/2016 5:00:00 AM - Incident# 2803644 (0 lost trips, 15 lost minutes)

Propulsion Fault/Spin slide faults Train 105 T-182 (230)-245-301 Washington Station Trk 2 S/B 15 minute service delay

### 11/23/2016 6:52:00 AM - Incident# 2803690 (0 lost trips, 10 lost minutes)

Propulsion fault Train 119 T-251 (237)-231-242 Del Amo Trk 1 NB 10 mimute service delay

# 11/23/2016 9:00:00 PM - Incident# 2804073 (2 lost trips, 335 lost minutes)

No Movement Self Applying Brakes Train # 101 T-357 (157A)-168-107 SB, Firestone Station, Track #2

# 11/24/2016 4:19:00 AM - Incident# 2804114 (0 lost trips, 7 lost minutes)

Over speed indication 40-45 mph Train 104 (118)-143 Del Amo Station Trk 1 N/B No delays

#### 11/25/2016 11:43:00 PM - Incident# 2804610 (1 lost trip, 131 lost minutes)

No Fault - No Movement (234)-232 T-250 Train 105 Rosecrans Flyover, Southbound, Track 2

# 11/29/2016 5:16:00 AM - Incident# 2805628 (0 lost trips, 4 lost minutes)

Recurring propulsion dynamic brake fault. Train 111 T-152 (234)-244-230 NB, Del Amo Station, Track 1

# 11/29/2016 7:10:00 AM - Incident# 2805680 (0 lost trips, 6 lost minutes)

Door problem. Train 101 T-101 115-113-127 NB, 7th and Metro Center Station, Track 1

# 11/29/2016 7:07:00 PM - Incident# 2806078 (4 lost trips, 690 lost minutes)

Operator reports of no movement

Train 609 T-449 (1023)-1031 Flower Junction, Trk. 3, northbound

# 11/30/2016 8:47:00 AM - Incident# 2806339 (0 lost trips, 5 lost minutes)

Doors, 231-(235B 7/8)-248 Train #105 T-118 Anaheim Station, Track #001, Northbound

# 11/30/2016 6:16:00 PM - Incident# 2806616 (2 lost trips, 347 lost minutes)

Train Delay Propulsion / Dynamic Brakes/ No movement Train #109 T-307 (237A)-247-239 NB, N. of Wardlow Station, Track #1

# Wayside Incidents:

#### 11/6/2016 10:08:00 AM - Incident# 2797137 (0 lost trips, 20 lost minutes)

Tractio Power personnel (TP-059, 057, 149, 188, 187 plus one more) are requesting authorization to enter the

#### 11/7/2016 12:38:00 AM - Incident# 2797279 (0 lost trips, 14 lost minutes)

OCS repair at the Willow pocket

#### 11/17/2016 8:46:00 AM - Incident# 2801400 (2 lost trips, 365 lost minutes)

ARINC SYSTEm indicates a tripped ETS switch, thus eliminating power to track s 1 & 2 from Del Amo station to Wardlow station.

#### 11/26/2016 1:52:00 PM - Incident# 2804753 (0 lost trips, 15 lost minutes)

Switch 3 at the Junction is out of correspondence.

# 11/30/2016 10:09:00 AM - Incident# 2806382 (0 lost trips, 5 lost minutes)

DC Breaker: Deenergized Train #102 T026 Wardlow grade crossing, track #002.

# Police & Health Incidents:

**11/3/2016 10:43:00 AM - Incident# 2796185 (0 lost trips, 12 lost minutes)** Blockade: Possible 10-390 trepassing from Comptom to Alondra Grade Crossing.

**11/12/2016 10:01:00 PM - Incident# 2799681 (1 lost trip, 138 lost minutes)** Blockade track 1 Century GC

# 11/14/2016 2:14:00 PM - Incident# 2800235 (0 lost trips, 8 lost minutes)

Operator reports of a person having a siezure.

Train 102 T-005 (142A) Artesia station, Trk. 1, northbound

# 11/15/2016 4:05:00 PM - Incident# 2800776 (0 lost trips, 5 lost minutes)

Misc. Passenger Problem man wielding a knife around to passengers.

# 11/16/2016 12:43:00 PM - Incident# 2801119 (0 lost trips, 10 lost minutes)

Misc. Passenger Problem patron had a seizure on train, refused medical Transport at Wardlow Station. Patron: Palm Arnold Captain Hannan 1st responder with LB Fire #9 & Rescue #9 LASD 602F Ramos and De'Leon 2nd to respond.

# 11/17/2016 7:36:00 PM - Incident# 2801617 (0 lost trips, 15 lost minutes)

Other: Information Only Delays on mainline due to person laying down on the tracks injured, (MTA not involved) at Vernon Grade Crossing.

# 11/17/2016 11:22:00 PM - Incident# 2801658 (0 lost trips, 5 lost minutes)

Sick Individual reported by LASD at Del Amo Station. Train instructed to proceed to medical rendeveoux point at Wardlow Station.

# 11/18/2016 10:32:00 AM - Incident# 2801894 (0 lost trips, 13 lost minutes)

LASD Deputy Naranjo requested to hold train 110 at Firestone Station, Track 1, Northbound.

# 11/18/2016 12:15:00 PM - Incident# 2801924 (0 lost trips, 10 lost minutes)

Train 106 reported a 10-390 refusing to exit the train at Metro Center.

# 11/18/2016 2:19:00 PM - Incident# 2801989 (0 lost trips, 5 lost minutes)

Train 102/T233 is reporting a passenger having a seizure on LRV 140A.

### 11/23/2016 1:08:00 PM - Incident# 2803843 (5 lost trips, 838 lost minutes)

Other: Information Only T/A Mta not involved at 8th/ Long Beach.

# 11/23/2016 5:34:00 PM - Incident# 2804041 (8 lost trips, 1,361 lost minutes)

Other: Information Only car ran through a fence which landed on the ROW track #2 side and prevented trains from proceeding south on that track.

# 11/25/2016 3:57:00 PM - Incident# 2804541 (0 lost trips, 4 lost minutes)

Operator T-211 got a call on the intercom from a passenger on board LRV 230B reporting a fight and requesting

# 11/25/2016 7:49:00 PM - Incident# 2804590 (0 lost trips, 31 lost minutes)

LASD requests southbound train (111) to hold at Compton Station, patron with possible gun on board.

# 11/26/2016 7:41:00 PM - Incident# 2804818 (2 lost trips, 339 lost minutes)

Operator reports of sick individual aboard Train 111.

Train- 111 Cars 237-245 T-237 San Pedro Station, Trk 2, southbound

# 11/28/2016 5:21:00 PM - Incident# 2805461 (0 lost trips, 15 lost minutes)

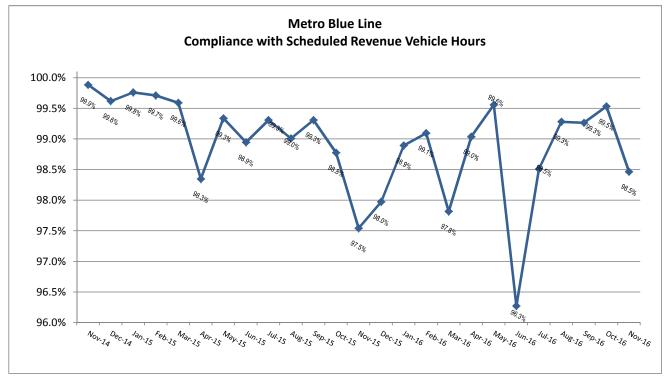
Train 121 reporting a sick individual on board LRV 157B Train 121 T-240 LRV'S 118- (157B)-136 Firestone Station, Track 2, Southbound.

# **Other Incidents:**

11/28/2016 3:42:00 PM - Incident# 2805412 (0 lost trips, 5 lost minutes)

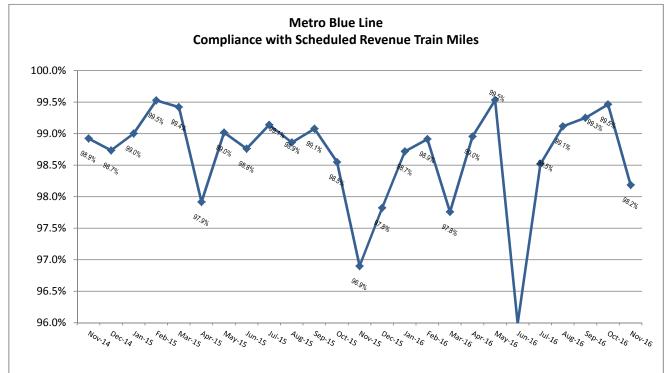
Train 127 pull-out 5 minutes late from the Yard. Operator manually set Switches at the yard.l

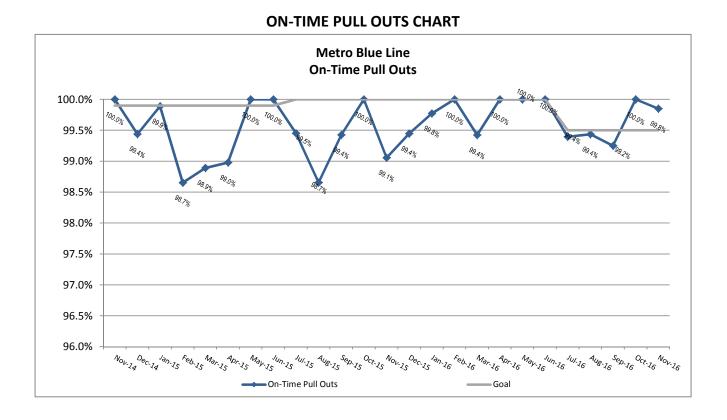
# **MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS**



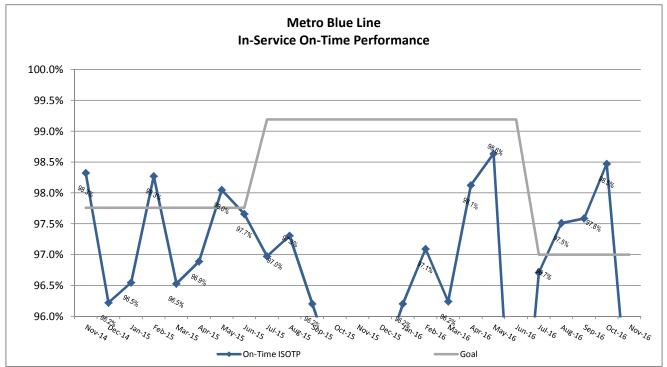
# COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART

COMPLIANCE WITH SCHEDULED TRAIN MILES CHART

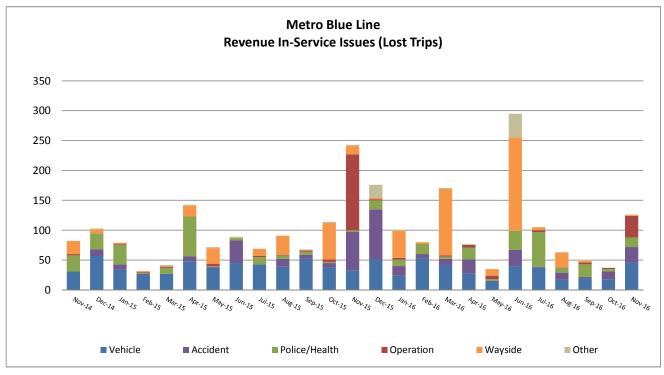




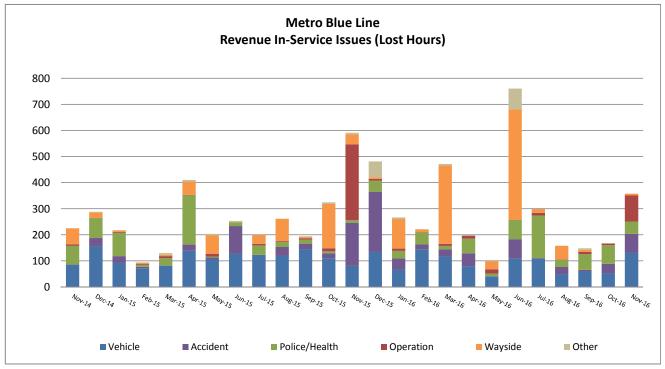
# **IN-SERVICE ON-TIME PERFORMANCE CHART**

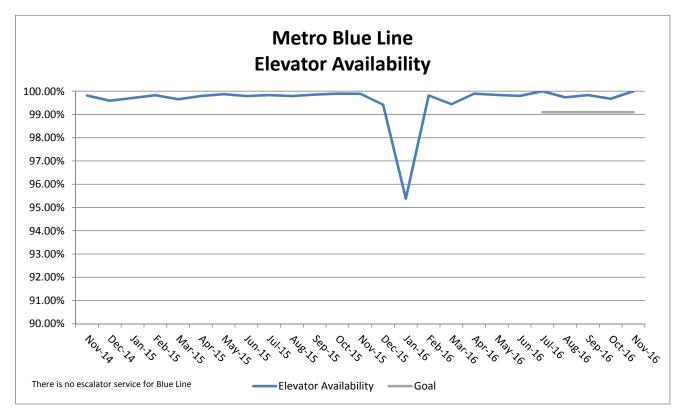


#### LOST TRIPS



### LOST HOURS





#### **VERTICAL TRANSPORTATION AVAILABILITY**

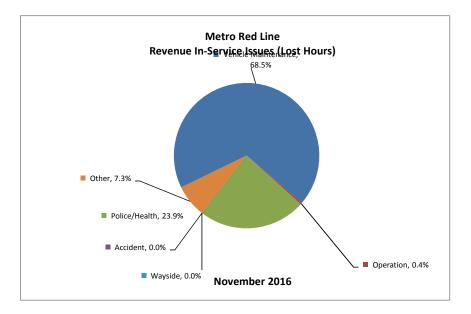
# **RED LINE**

Out of a total of 27,507 hours operated, there were approximately 34 total hours of service delays.

	Revenue		
November 2016 Service Hours *	Hours	Per Cent	
Revenue Hours without Delays	27,472	99.9%	
Cancelled + Delayed Hours	34	0.1%	
Total Revenue Hours	27,507	100.0%	

Summary of the major contributors:	Count	Hours	Per Cent
Operations	1	0.1	0.4%
Accidents	0	0.0	0.0%
Vehicle Maintenance	11	23.5	68.5%
Wayside	0	0.0	0.0%
Police & Health	12	8.2	23.9%
Other	1	2.5	7.3%
Total	25	34.3	100.0%

\* Data from M3 used to report Service Delays is under review for accuracy



# November 2016 Red Line major delay contributors were as follows:

# **Operations Incidents:**

**11/20/2016 9:45:00 PM - Incident# 2802585 (0 lost trips, 8 lost minutes)** Report of a patron on the right of way.

# Vehicle Maintenance Incidents:

11/1/2016 8:05:00 AM - Incident# 2795268 (0 lost trips, 9 lost minutes) Union Station AR Track, Train-207 T-10 consist #575/576/565/566/577/578 without movement and no indications.

## 11/3/2016 2:51:00 PM - Incident# 2796292 (0 lost trips, 3 lost minutes)

Flashing cab signals in car 530. T-176 Train 209 Cars 501,502,521(53) Departing Civic Center AL EB.

## 11/4/2016 5:55:00 PM - Incident# 2796806 (0 lost trips, 8 lost minutes)

Operator reports unable to proceed due to a flashing cab signal. Cars: 577 578 545 546 575 (576) North Hollywood Station, Eastbound. T-4, Train 217.

#### 11/9/2016 7:07:00 AM - Incident# 2798298 (3 lost trips, 448 lost minutes)

Train 207 unable to proceed. T-080 Wilshire Vermont AR West. (565) 566 531 532 595 596

# 11/11/2016 12:31:00 PM - Incident# 2799355 (0 lost trips, 10 lost minutes)

Train 203 cars 527-522--511-512 doors off its track and it has a shattered glass on door #9.

#### 11/14/2016 11:05:00 AM - Incident# 2800154 (2 lost trips, 299 lost minutes)

Friction brakes self apply while departing station westbound Train 205 T-483 Union Station AR West (511) 512 501 502

## 11/15/2016 8:08:00 AM - Incident# 2800497 (0 lost trips, 5 lost minutes)

Train 209 car 514 has a CB1 trip , unable to reset.

#### 11/17/2016 4:55:00 PM - Incident# 2801578 (2 lost trips, 307 lost minutes)

T-045 reported doors stuck on train 219. T-045 Train 219 Cars: 505 506 509 508 511 512 Union Station AL West.

## 11/18/2016 4:57:00 PM - Incident# 2802063 (0 lost trips, 9 lost minutes)

T-328 reported propulsion failure on car 524. T-328 Train 214 Cars: 525 524 513 514 519 526 Hollywood Highland AR West.

#### 11/25/2016 8:06:00 AM - Incident# 2804352 (0 lost trips, 15 lost minutes)

Tran 201 (571,572,539,540,603,604) T-276, Hollywood Western, AL reports he lost propulsion in one of the cars.

# 11/29/2016 9:40:00 AM - Incident# 2805863 (2 lost trips, 298 lost minutes)

ATP failure AL West Union T-523 Train 201 (509) 508 517 518

# Police & Health Incidents:

11/4/2016 7:19:00 PM - Incident# 2796815 (0 lost trips, 10 lost minutes) Reports patron is bleeding from head.

# 11/5/2016 8:18:00 AM - Incident# 2796920 (0 lost trips, 15 lost minutes)

Report of a male black adult leaning over the railing above the AR track.

# 11/6/2016 8:33:00 AM - Incident# 2797127 (0 lost trips, 9 lost minutes)

Trespasser at Wilshire/Vermont AR-BR.

# 11/6/2016 2:34:00 PM - Incident# 2797181 (0 lost trips, 17 lost minutes)

T-022 reported fight on board train with passenger holding the door at Civil Center Station.

#### 11/11/2016 10:45:00 AM - Incident# 2799311 (1 lost trip, 161 lost minutes)

LASD instructs to hold train 208 at 7th & Metro Station, AL platform due to report received of a male individual carrying a rifle.

# 11/16/2016 8:55:00 AM - Incident# 2800986 (1 lost trip, 163 lost minutes)

Patron unconscious on board train 205 T-378 Train 205 AR west Vermont Sunset 563 (564) 569 570 603 604

# 11/20/2016 11:30:00 AM - Incident# 2802481 (0 lost trips, 6 lost minutes)

T-367 reports an unattended suit case at Pershing Square Station East end.

## 11/24/2016 2:26:00 PM - Incident# 2804210 (0 lost trips, 3 lost minutes)

Male trespasser beyond the emergency access gate Wilshire Vermont Station West A/L Track.

## 11/25/2016 11:01:00 AM - Incident# 2804428 (0 lost trips, 12 lost minutes)

Train 207 T-101 was held at Pershing Square per LASD.

## 11/27/2016 1:22:00 PM - Incident# 2804953 (0 lost trips, 12 lost minutes)

LASD Borracas advised ROC to bypass Santa Monica station due to a suspicious package on the mezzanine.

## 11/28/2016 10:20:00 AM - Incident# 2805279 (0 lost trips, 64 lost minutes)

Police activities at Street level due to a 996-T. LAPD requested Hollywood and Highland Station be by passed by all trains.

# 11/29/2016 12:45:00 AM - Incident# 2805593 (0 lost trips, 20 lost minutes)

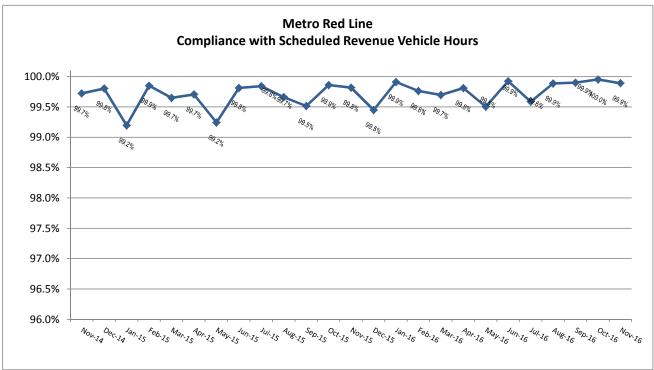
Patron inform operator of being assaulted car # 557 Train # 214 Universal City AL track.

# **Other Incidents:**

#### 11/3/2016 6:18:00 PM - Incident# 2796365 (1 lost trip, 149 lost minutes)

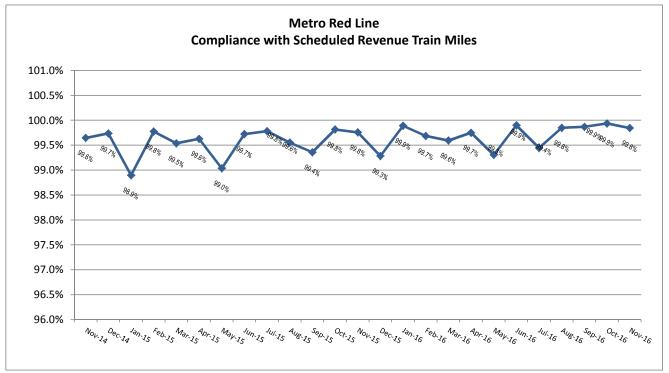
Patron having a seizure on board Train 218 car 528 at Hollywood/Highland AR WB.

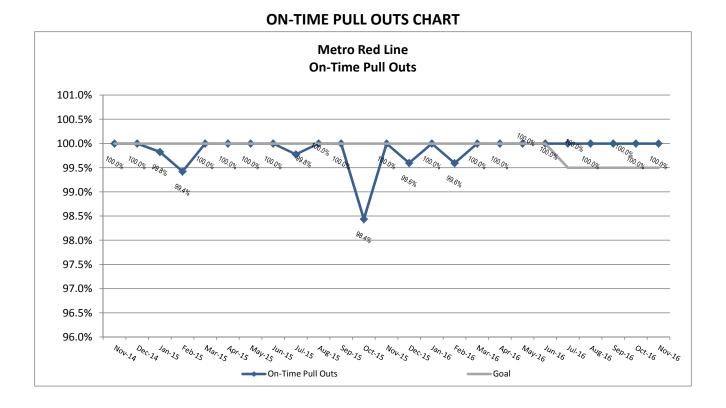
# **MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS**



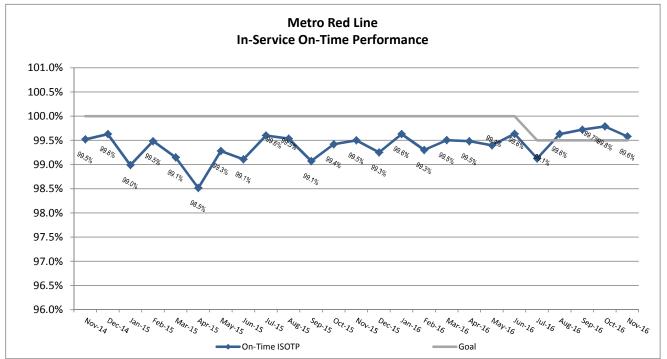
#### COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART

# COMPLIANCE WITH SCHEDULED TRAIN MILES CHART

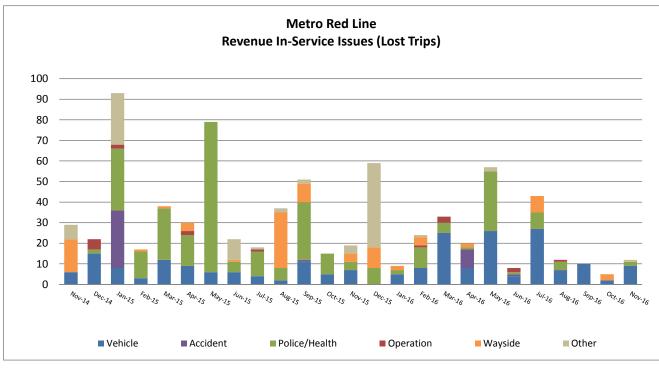




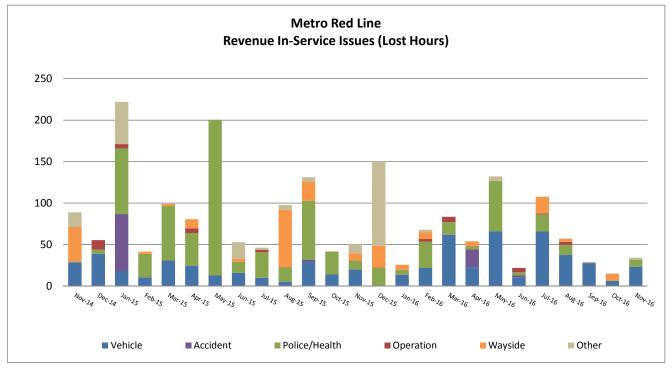
# **IN-SERVICE ON-TIME PERFORMANCE CHART**



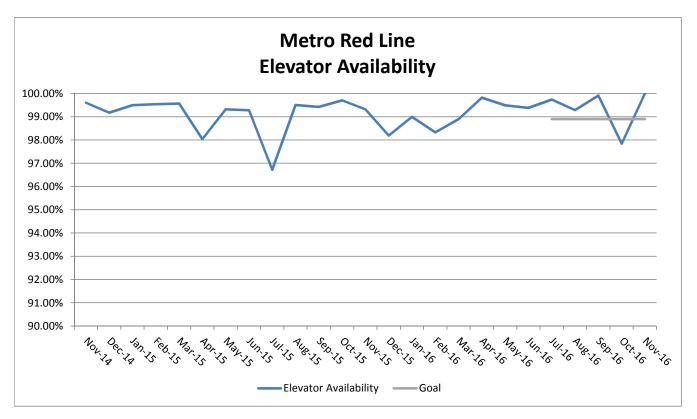


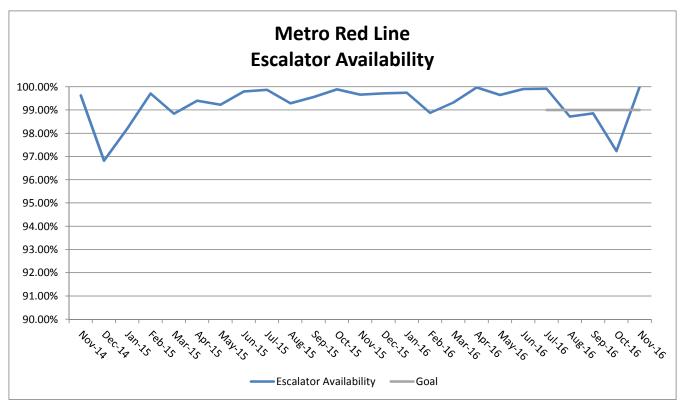


# LOST TRIPS









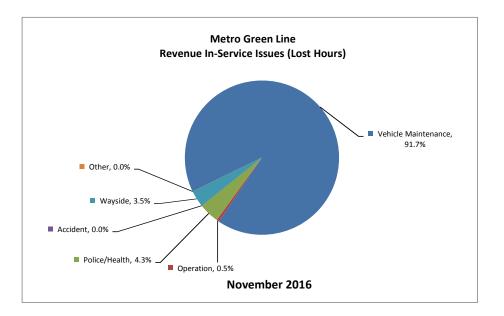
# **GREEN LINE**

Out of a total of 7,676 hours operated, there were approximately 19 total hours of service delays.

	Revenue	
November 2016 Service Hours *	Hours	Per Cent
Revenue Hours without Delays	7,657	99.8%
Cancelled + Delayed Hours	19	0.2%
Total Revenue Hours	7,676	100.0%

Summary of the major contributors:	Count	Hours	Per Cent
Operations	1	0.1	0.5%
Accidents	0	0.0	0.0%
Vehicle Maintenance	19	17.3	91.7%
Wayside	3	0.7	3.5%
Police & Health	4	0.8	4.3%
Other	0	0.0	0.0%
Total	27	18.9	100.0%

\* Data from M3 used to report Service Delays is under review for accuracy



# November 2016 Green Line major delay contributors were as follows:

# **Operations Incidents:**

# 11/2/2016 5:36:00 AM - Incident# 2795616 (0 lost trips, 6 lost minutes)

T-141 requested 10-100 at Marine Station at 05:25 hours. Scheduled departure is 05:30 hours. T-141 cleared and departed at 05:36 hours.

# Vehicle Maintenance Incidents:

# 11/2/2016 4:13:00 PM - Incident# 2795913 (2 lost trips, 131 lost minutes)

Propulsion failure with speed restriction. Train # 335 T-112 Cars # (217-B)-205. W/Bound Lakewood Station Track-1.

## 11/4/2016 10:28:00 AM - Incident# 2796605 (1 lost trip, 64 lost minutes)

Train operator reports track brakes locked up with no cab signal on car 201A, no movement just departing Norwalk station.

#### 11/10/2016 10:05:00 AM - Incident# 2798845 (1 lost trip, 68 lost minutes)

Prop fault on car 225 Doors not opening on car 207 T-141, train331 (225)-207 Hawthorne, track 1, west

#### 11/13/2016 11:06:00 AM - Incident# 2799764 (1 lost trip, 80 lost minutes)

Propulsion Faults on A and B truck on 221. Train 333 T-409 (221)-215 EB, Marine Station, Track 2

#### 11/14/2016 11:33:00 PM - Incident# 2800378 (2 lost trips, 131 lost minutes)

Train loosing air on approach to Lakewood station. (217) Train 332 T-078 Car 217 Track 2 Eastbound Lakewood station

#### 11/19/2016 4:23:00 AM - Incident# 2802138 (2 lost trips, 126 lost minutes)

Propulsion Fault with Speed Restriction 205-(213) Train 333 T-85 El Segundo, eastbound

# 11/20/2016 1:52:00 PM - Incident# 2802516 (0 lost trips, 10 lost minutes)

Propulsion fualt unable to clear (212)-221 T-112 Train 336 Track 1 Wilimington station Westbound ATO MODE

## 11/20/2016 11:03:00 PM - Incident# 2802591 (0 lost trips, 6 lost minutes)

Low Air Pressure, Car #210 Train #351 T-396 El segundo Track #002, Eastbound

#### 11/22/2016 12:26:00 PM - Incident# 2803416 (0 lost trips, 10 lost minutes)

Prop fault on car 222 T-458, train 333 (222)-227 Norwalk Station, track 1, west

# 11/22/2016 3:30:00 PM - Incident# 2803514 (0 lost trips, 6 lost minutes)

Prop fault on car 221B T-105, train 353 (221)-205 Lakewood, track 2, east

# 11/23/2016 6:40:00 AM - Incident# 2803677 (1 lost trip, 66 lost minutes)

Car 209 "A" has prop faults T-177 Consist (209A)224 Train 346 Hawthorne Station, Track #2, Eastbound

#### 11/25/2016 12:59:00 AM - Incident# 2804279 (0 lost trips, 20 lost minutes)

Train 331 lost Air Pressure at El Segundo Interlocking Westbound Track #1.

#### 11/25/2016 6:21:00 AM - Incident# 2804331 (0 lost trips, 7 lost minutes)

Prop fault on car 204 T-220, train 346 (204)-207 Marine, track 2, east

#### 11/26/2016 1:19:00 AM - Incident# 2804616 (2 lost trips, 120 lost minutes)

Propulsion fault / Speed Restriction 215B Train 335 T-450 Harbor Station, eastbound

#### 11/28/2016 3:46:00 AM - Incident# 2805083 (1 lost trip, 69 lost minutes)

Recuring propulsion faults. Speed restriction. Train 332 T-202 Track 2, E/B Yard Limit signal 76 (204)-208 MTO mode

#### 11/28/2016 4:34:00 AM - Incident# 2805087 (0 lost trips, 6 lost minutes)

Friction break fault. Speed restriction. Train 342 T-85 Track- yard limit signal 78 (207)-214 MTO mode

#### 11/28/2016 6:03:00 AM - Incident# 2805122 (1 lost trip, 66 lost minutes)

Propulsion fault. Speed restriction. Train 335 T-344 Track 2, E/B Crenshaw station (220A)-215 ATO & MTO modes

# 11/28/2016 11:29:00 PM - Incident# 2805571 (0 lost trips, 20 lost minutes)

Car 222 lost air east of Douglas Station T-450 Car 222 Track 2 Eastbound East of Douglas station

# 11/29/2016 5:20:00 AM - Incident# 2805620 (0 lost trips, 30 lost minutes)

Propulsion fault. Speed restriction. Train 343 T-57 Track 2, E/B Marine Station (226B)-208 ATO & MTO modes

# Wayside Incidents:

**11/14/2016 11:32:00 AM - Incident# 2800302 (0 lost trips, 20 lost minutes)** YDI-El Segundo IL/TP-59, TP-110/E-5/OCS maintenance.

#### 11/18/2016 7:54:00 AM - Incident# 2801799 (0 lost trips, 15 lost minutes)

TP-145 Activated work permit to perform OCS inspection from YDI 6 to El Segundo 6.

#### 11/20/2016 11:47:00 PM - Incident# 2802595 (0 lost trips, 5 lost minutes)

Interlocking: Switch Failure ARINC Lynwood Interlocking

# Police & Health Incidents:

**11/8/2016 7:56:00 AM - Incident# 2797870 (0 lost trips, 16 lost minutes)** Patron with possible firearm reported at Aviation Station

# 11/8/2016 9:13:00 PM - Incident# 2798147 (0 lost trips, 6 lost minutes)

Marine/T-78 request medical assistance for a sick passenger.

# 11/15/2016 5:10:00 PM - Incident# 2800803 (0 lost trips, 13 lost minutes)

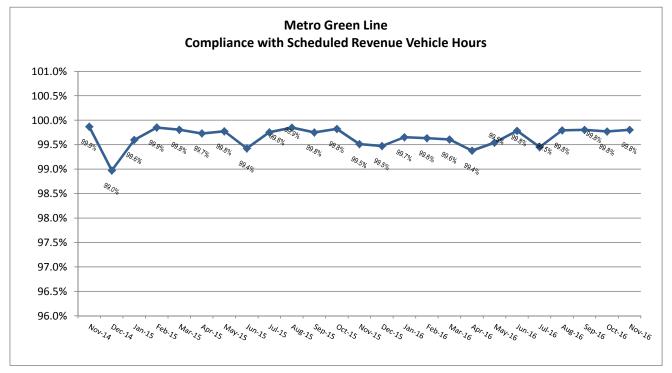
Norwalk/Trespasser walking westbound towards Lakewood.

#### 11/26/2016 12:12:00 PM - Incident# 2804732 (0 lost trips, 13 lost minutes)

Tresspasser on the ROW, collecting cans and then sitting on overpass. Male black in all black with a trash bag. Train 335

T-257 211-243 EB-Harbor station-2

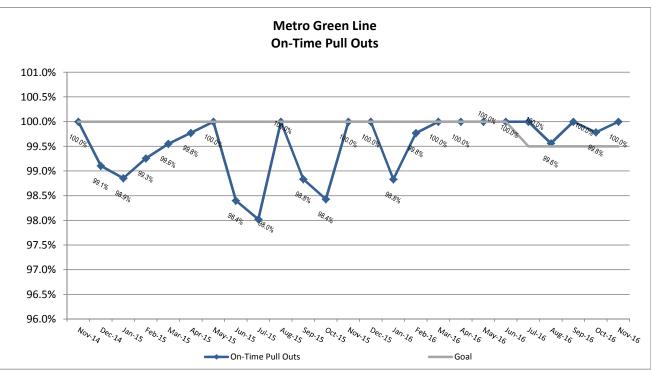
# **MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS**



## COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART

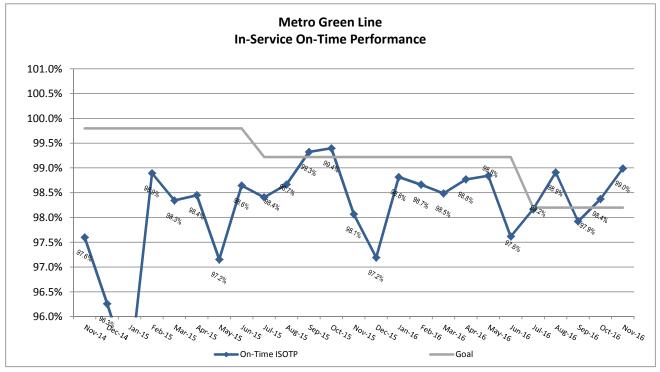
# COMPLIANCE WITH SCHEDULED TRAIN MILES CHART



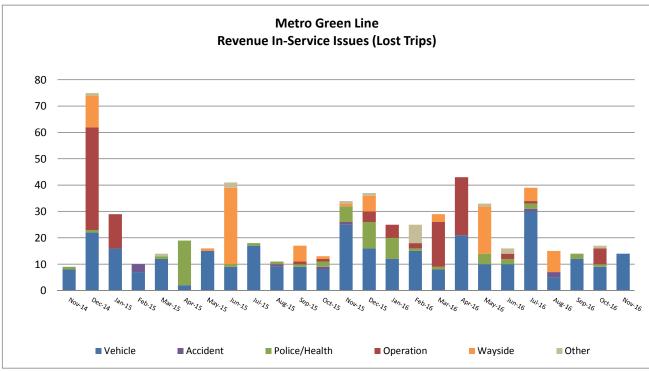


# **ON-TIME PULL OUTS CHART**

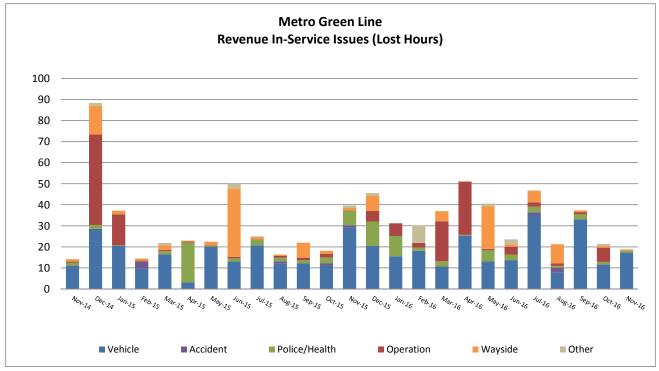
# **IN-SERVICE ON-TIME PERFORMANCE CHART**

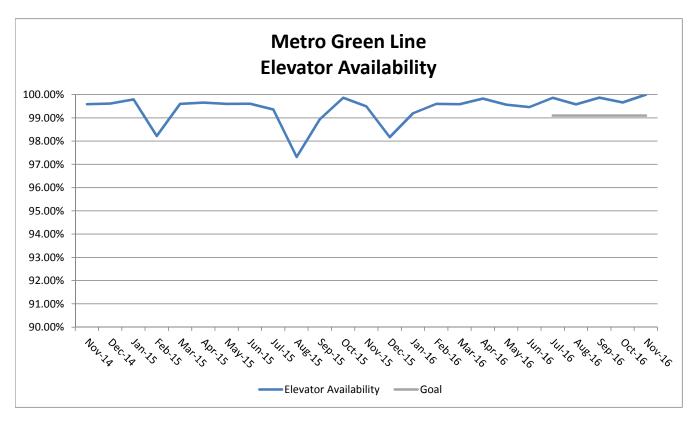




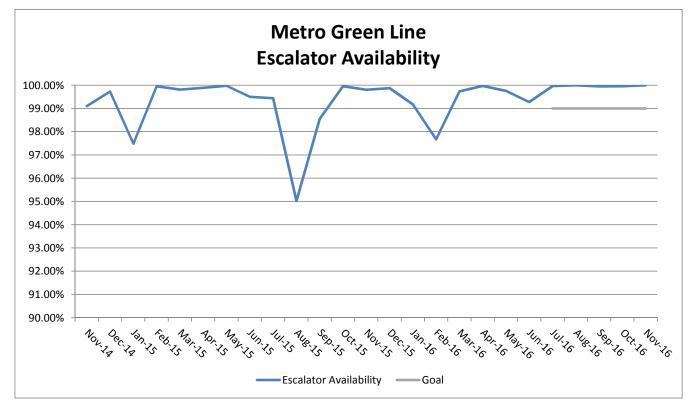


# LOST HOURS





# VERTICAL TRANSPORTATION AVAILABILITY



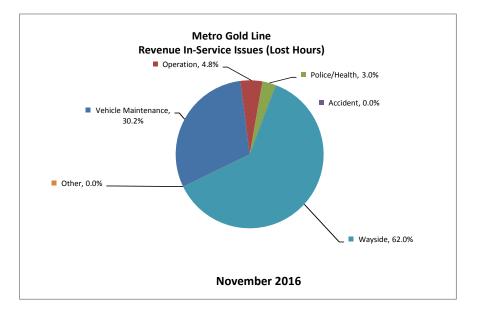
# **GOLD LINE**

Out of a total of 19,744 hours operated, there were approximately 176 total hours of service delays.

	Revenue		
November 2016 Service Hours *	Hours	Per Cent	
Revenue Hours without Delays	19,569	99.1%	
Cancelled + Delayed Hours	176	0.9%	
Total Revenue Hours	19,744	100.0%	

Summary of the major contributors:	Count	Hours	Per Cent
Operations	6	8.5	4.8%
Accidents	0	0.0	0.0%
Vehicle Maintenance	21	53.1	30.2%
Wayside	4	108.9	62.0%
Police & Health	9	5.3	3.0%
Other	0	0.0	0.0%
Total	40	175.7	100.0%

\* Data from M3 used to report Service Delays is under review for accuracy



# November 2016 Gold Line major delay contributors were as follows:

# **Operations Incidents:**

11/3/2016 6:17:00 PM - Incident# 2796368 (2 lost trips, 465 lost minutes) Near miss consist 742(737B). Lake Station Train #404, T-134, track #2, southbound.

# 11/14/2016 1:37:00 AM - Incident# 2799907 (0 lost trips, 15 lost minutes)

Train 403 SB Delayed for Camp Flog Gnaw Concert

## 11/15/2016 5:38:00 AM - Incident# 2800433 (0 lost trips, 7 lost minutes)

T-19 reports no movement from train 403 attempting to depart Atlantic Station northbound.

# 11/16/2016 5:35:00 AM - Incident# 2800915 (0 lost trips, 6 lost minutes)

Train 403, T-019 late departure from Atlantic Station.

## 11/17/2016 8:57:00 AM - Incident# 2801438 (0 lost trips, 7 lost minutes)

Train 405 T-158 departed Atlantic station 7 minutes late. Operator stated she thought she was working a different alpha

# 11/25/2016 8:31:00 AM - Incident# 2804387 (0 lost trips, 7 lost minutes)

Rule Violation, 4261: Departure Time, Cars #(705A)-707 Train #451 T-019 Atlantic Station, Track #002, Northbound.

# Vehicle Maintenance Incidents:

11/1/2016 10:20:00 AM - Incident# 2795316 (1 lost trip, 231 lost minutes) Train 403, Cars KI-1010 and KI-1011. Duarte station, Track 2 south. ATP failure and Prop fault with 35mph.

# 11/2/2016 5:10:00 AM - Incident# 2795612 (0 lost trips, 11 lost minutes)

ATP failure/no cab signal Train 402 LRV 1008A/1005 T-103 Atlantic Interlocking track 1

## 11/7/2016 5:40:00 PM - Incident# 2797632 (2 lost trips, 465 lost minutes)

No movement SB after trying to reset PA system in car 1008. T-151 Train 425 Cars (1008), 1015 Irwindale Interlocking Track 2 SB.

#### 11/9/2016 5:37:00 AM - Incident# 2798234 (0 lost trips, 7 lost minutes)

No cab signal Train: 405 Cars: 740A-748 T-14 South Pasadena station, track #2, south bound.

#### 11/9/2016 6:27:00 AM - Incident# 2798259 (1 lost trip, 242 lost minutes)

Train 452 (708,705) T-304 in approach to Allen Station reports minor propulsion and dynamic brake fault in car 705.

## 11/10/2016 5:55:00 PM - Incident# 2799070 (1 lost trip, 231 lost minutes)

Car 1006 Hi Speed Circuit Breaker unable to clear T-158 Train-408 Consist(1006-1013) Union Station, Track 1, Northbound

#### 11/11/2016 4:46:00 PM - Incident# 2799448 (1 lost trip, 235 lost minutes)

Propulsion fault and HSCB in car 733B. T-178 Train 422 Cars (733),738 Downtown Azusa Track 2 SB

#### 11/15/2016 9:54:00 AM - Incident# 2800633 (0 lost trips, 20 lost minutes)

Train 404 (1010-1005) T-477, Azusa Dowtown Station, track 2, reports propulsion fault with speed restriction of 35MPH.

#### 11/15/2016 10:39:00 PM - Incident# 2800860 (0 lost trips, 10 lost minutes)

Friction brake fault 1009(1011B). Just prior to Memorial Park Station. Train #422, T-107, track #2, southbound.

# 11/16/2016 4:23:00 AM - Incident# 2800900 (0 lost trips, 3 lost minutes)

LVPS fault (Battery Charger) LRV 1009 T-338 Train 403 LRV (1009)-1011 APU Station, Track 2, Southbound.

## 11/18/2016 4:56:00 PM - Incident# 2802075 (0 lost trips, 6 lost minutes)

Car 737 Friction Brakes Fault. T-441 Train 406 Cars (737)-724 Atlantic Station, Track 1, northbound.

## 11/19/2016 5:48:00 PM - Incident# 2802282 (0 lost trips, 5 lost minutes)

(718)-738-741 Emergency Lighting Only NB Atlantic Train 401 T-453

## 11/21/2016 7:30:00 AM - Incident# 2802756 (0 lost trips, 6 lost minutes)

Propulsion fault unable to clear Train #413 T-447 car#1012-1007-1011 southbound at Irwindale.

# 11/22/2016 5:19:00 AM - Incident# 2803215 (0 lost trips, 16 lost minutes)

ATP Failure (728)-750 Train 403 T-338 Southwest Museum Station Southbound

#### 11/22/2016 7:32:00 AM - Incident# 2803298 (0 lost trips, 6 lost minutes)

B.O Doors (1015)-1011 T-112 Train 403 Southwest Museum Southbound

#### 11/26/2016 5:30:00 PM - Incident# 2804797 (0 lost trips, 9 lost minutes)

Dirty cars# 742-(746) Train #409 T-482 Atlantic Station, Track #002, Northbound.

## 11/28/2016 6:38:00 AM - Incident# 2805147 (0 lost trips, 9 lost minutes)

Train 415, Cars 1015-1013-1006. Lake Station, Track 1 north. Prop fault with speed restriction.

#### 11/29/2016 5:49:00 AM - Incident# 2805626 (2 lost trips, 480 lost minutes)

Self Applying Friction Brakes 709-711 Train 455 T-203 Indiana Station, northbound

#### 11/29/2016 2:46:00 PM - Incident# 2806032 (2 lost trips, 495 lost minutes)

Train 066 (710-702) out of service train in route to pull in to Div. 21 reports no movement, no indications at Ave 60.

## 11/29/2016 3:31:00 PM - Incident# 2806053 (2 lost trips, 465 lost minutes)

Train 207 (1010,1007,1006) T-207 departing Duarte Station, Track 2 reports he has cab signals but minimal propulsion.

## 11/30/2016 8:36:00 PM - Incident# 2806656 (1 lost trip, 232 lost minutes)

Car 721B indicating ATP failure. Train 404 T-196 Consist 721-747 Azusa Downtonw, Track 2 SB

# Wayside Incidents:

**11/2/2016 10:52:00 AM - Incident# 2795741 (0 lost trips, 12 lost minutes)** Track defect mile marker 12.9 to 12.8 track 2 south of SMV Interlocking.

# 11/2/2016 11:42:00 AM - Incident# 2795761 (0 lost trips, 12 lost minutes)

Track defect Allen Interlocking to Allen station.

#### 11/7/2016 4:05:00 PM - Incident# 2797611 (28 lost trips, 6,504 lost minutes)

ARINC indicates Irwindale TPSS B-14, B-15 Business Ctr. and B-13, B-12 at Irwindale TPSS with deenergized tracks 1 and 2 between Irwindale and Duarte Stations and ETS 39,40 tripped indication.

#### 11/9/2016 11:42:00 AM - Incident# 2798451 (0 lost trips, 6 lost minutes)

Interlocking: Loss Of Traffic SCADA South West Museum Interlocking

# Police & Health Incidents:

11/1/2016 7:09:00 AM - Incident# 2795240 (0 lost trips, 8 lost minutes) Blockade at the Shoe Fly (1st and Hewitt) track 1 Northbound.

# **11/3/2016 10:21:00 AM - Incident# 2796169 (0 lost trips, 10 lost minutes)** Track 1 blockade Downey Road by Semi Truck.

**11/5/2016 5:06:00 PM - Incident# 2797026 (0 lost trips, 7 lost minutes)** Train 408, T-421 reported a sick patron on board car 739B.

**11/9/2016 5:55:00 PM - Incident# 2798636 (1 lost trip, 247 lost minutes)** LASD: Roggy reported a vehicle stuck on the ROW at 1st and Santa Clara crossing.

# 11/13/2016 1:02:00 AM - Incident# 2799687 (0 lost trips, 10 lost minutes)

Passenger vs Passenger Assault at Atlantic Station

# 11/22/2016 6:27:00 PM - Incident# 2803533 (0 lost trips, 5 lost minutes)

LASD request to hold trains coming into Sierra Madre Station due to person on the right of way.

# 11/26/2016 7:08:00 PM - Incident# 2804814 (0 lost trips, 8 lost minutes)

Reported a tresspasser and bicycle Tk 1 NB mile marker 9.7 Hispanic male 30s wearing all black

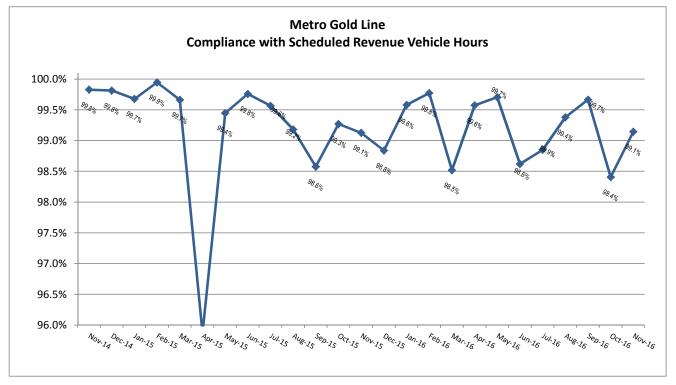
# 11/28/2016 6:30:00 PM - Incident# 2805481 (0 lost trips, 10 lost minutes)

Doors, (744B 5/6)-713 Train #421 T-063 Heritage Square Statuion, Track #001, Northbound

# 11/29/2016 9:40:00 PM - Incident# 2806122 (0 lost trips, 10 lost minutes)

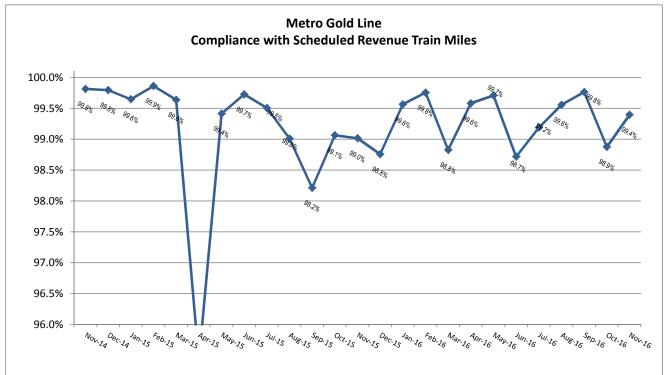
Passenger brandishing a knife aboard car 726.

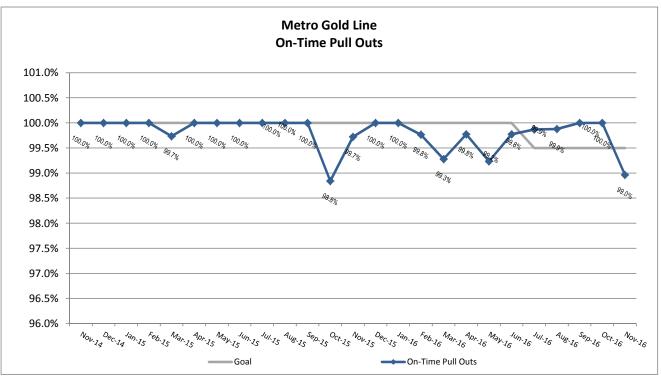
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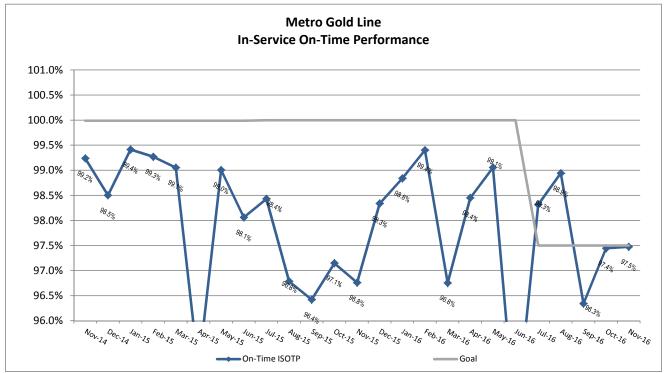
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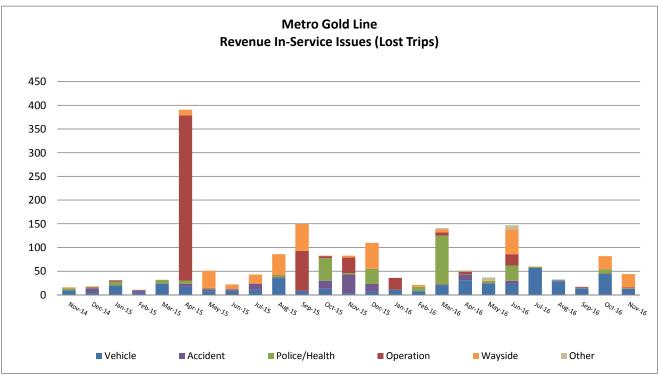


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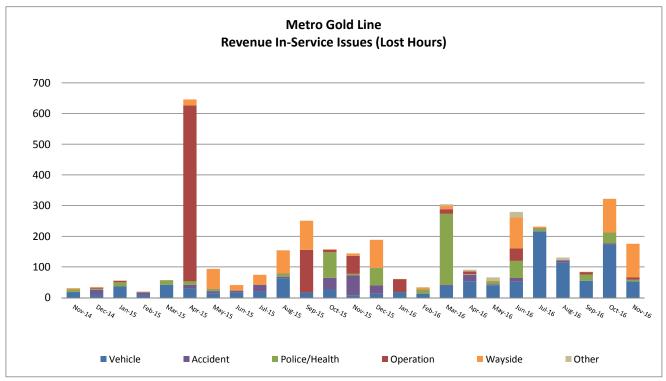
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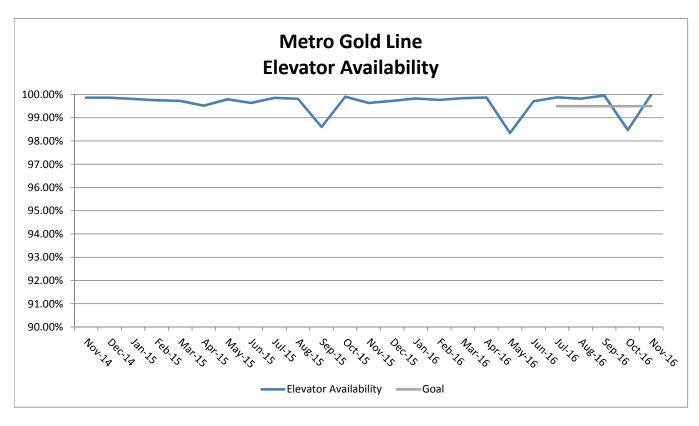
LOST TRIPS

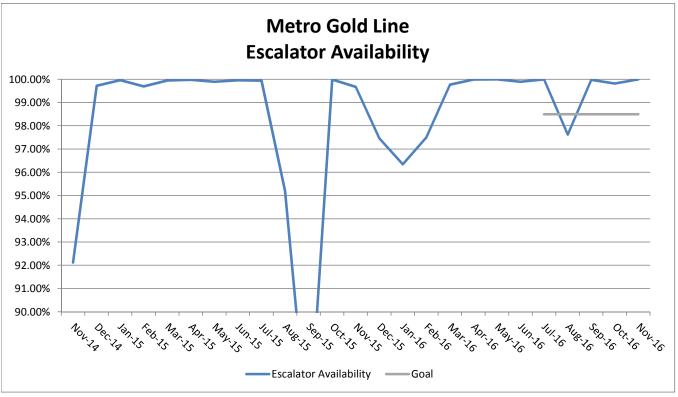


# LOST HOURS



# VERTICAL TRANSPORTATION AVAILABILITY





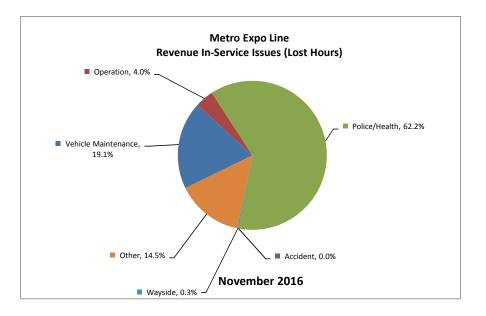
# **EXPO LINE**

Out of a total of 19,558 hours operated, there were approximately 253 total hours of service delays.

	Revenue		
November 2016 Service Hours *	Hours	Per Cent	
Revenue Hours without Delays	19,305	98.7%	
Cancelled + Delayed Hours	253	1.3%	
Total Revenue Hours	19,558	100.0%	

Summary of the major contributors:	Count	Hours	Per Cent
Operations	7	10.1	4.0%
Accidents	0	0.0	0.0%
Vehicle Maintenance	34	48.2	19.1%
Wayside	3	0.7	0.3%
Police & Health	14	157.3	62.2%
Other	9	36.8	14.5%
Total	67	253.0	100.0%

\* Data from M3 used to report Service Delays is under review for accuracy



# November 2016 Expo Line major delay contributors were as follows:

# **Operations Incidents:**

11/2/2016 4:38:00 PM - Incident# 2795908 (3 lost trips, 282 lost minutes) Service cancellation due to lack of manpower.

# 11/4/2016 9:07:00 AM - Incident# 2796563 (1 lost trip, 94 lost minutes)

Train delay Train #607 T-472 canceled from Metro center to Western ave Expo Line.

# 11/9/2016 5:30:00 AM - Incident# 2798582 (0 lost trips, 6 lost minutes)

Train departed late due to no movement.

# 11/14/2016 7:21:00 AM - Incident# 2800068 (0 lost trips, 20 lost minutes)

train 614 T-214 23rd tk3 station south bound

# 11/27/2016 10:13:00 PM - Incident# 2805041 (0 lost trips, 5 lost minutes)

MT-152 activated temporary work permit with Sperry Hi-rail vehicle from 4Th street Santa Monica to 7Th street Metro Center on track 3 Northbound for testing purposes.

# 11/28/2016 10:36:00 PM - Incident# 2805560 (0 lost trips, 5 lost minutes)

Operator Late Train 602 T-525 1042-1043 Northbound, Santa Monica Station TK 3.

# 11/29/2016 7:25:00 PM - Incident# 2806087 (2 lost trips, 194 lost minutes)

Train delay due to a train with no movenment a the Washington/Flower junction.

# Vehicle Maintenance Incidents:

11/2/2016 5:05:00 AM - Incident# 2795614 (0 lost trips, 5 lost minutes) Propulsion Faults Train 603 T-241 (1036A)-1016 Farmdale S/B Track 4 5 min delay

# 11/3/2016 6:22:00 AM - Incident# 2796043 (0 lost trips, 6 lost minutes)

Propulsion fault with a speed restriction of 35mph Train #614 T-412 125-(164)-120 Western Station, Track #3, NB

#### 11/3/2016 8:57:00 PM - Incident# 2796420 (1 lost trip, 97 lost minutes)

Operator reports having a HSCB failure with no movement. Cars 1037A, 1035 Train 606 T-507 La Cienega, TRK 3 northbound

#### 11/6/2016 11:01:00 AM - Incident# 2797151 (0 lost trips, 12 lost minutes)

No Movement. Train # 915. Santa Monica Station, Track #3, Northbound. LRV- 145, 157, 134. T-463.

## 11/6/2016 6:25:00 PM - Incident# 2797216 (1 lost trip, 141 lost minutes)

Door Problem ( doors will not close) Train #609, T-381 250-229 SB, Western Station, Track #4

#### 11/7/2016 1:46:00 PM - Incident# 2797543 (2 lost trips, 188 lost minutes)

Train has an unclearable propulsion fault on consist. Train 614, T-438 (133A)-144 Track 5, 4th Street, North

#### 11/7/2016 6:04:00 PM - Incident# 2797630 (4 lost trips, 376 lost minutes)

Train network /no movement Train 612 SB 7th/Metro Tail Track #2 T-374 1036-(1031)

#### 11/8/2016 5:34:00 AM - Incident# 2797816 (0 lost trips, 5 lost minutes)

Downtown Santa Monica Station, Train-612 T-214 consist #1038-1039 with "street run" failure and unable to obtain

# 11/8/2016 7:25:00 AM - Incident# 2797847 (0 lost trips, 8 lost minutes)

No Fault no movement, Unble to get into stop and proceed mode. Train 605 T-162 (1035)-1014 7thMetro N/B Interlocking

#### 11/8/2016 8:14:00 PM - Incident# 2798143 (0 lost trips, 14 lost minutes)

Prop Dynamic Brake Fault/No Movement Train 607 Track #3 NB Westwood/ Rancho Park Station T-521 (232A)-302-248

#### 11/9/2016 5:34:00 AM - Incident# 2798237 (0 lost trips, 20 lost minutes)

Unable to get in and out of Cab and Street Run. Train 612 T-214 (238)-246 4th Street Interlocking N/B Trk 3

## 11/11/2016 6:27:00 AM - Incident# 2799206 (1 lost trip, 103 lost minutes)

Loss of Street Run on LRV 248A T-133 Train 616 LRV (248A) 249 7th Street, Northbound, Track 1.

#### 11/11/2016 6:43:00 AM - Incident# 2799218 (0 lost trips, 12 lost minutes)

Propulsion / Dynamic Brakes, Emergency Lighting LRV 1035-1025 T-463 Train 613 LRV 1035-1025 7MC Station, Track 2, southbound.

#### 11/14/2016 6:51:00 AM - Incident# 2799985 (0 lost trips, 8 lost minutes)

Train Delay (Train 613 unable to engage stop and proceed from TT1 to platfrom 2 at 7MC).

#### 11/14/2016 4:31:00 PM - Incident# 2800303 (4 lost trips, 386 lost minutes)

Car (K1042B) broken air hose/missing pieces. No movement. T-407 Train 615 Cars (K1042B)-1024 Palm Station, Track 3, northbound.

## 11/15/2016 7:12:00 AM - Incident# 2800475 (3 lost trips, 282 lost minutes)

Reports of no audible warning devices Train # 617 T-29 (1021)-1028 26th street station, Track 3, NB

#### 11/16/2016 6:16:00 PM - Incident# 2801494 (1 lost trip, 104 lost minutes)

Operator reports unable to engage cab signals approaching 17th.

# 11/16/2016 7:51:00 PM - Incident# 2801594 (0 lost trips, 12 lost minutes)

Degnan IL/Train 607 unable to engage street run.

## 11/18/2016 9:14:00 AM - Incident# 2801851 (0 lost trips, 10 lost minutes)

Train 616 was not able to engage Stop and Proceed Mode after loosing Cab Signals on track 1 tail track. Train 616 T-230 LRV'S (1034) 1023 7th & Metro, Tail Track 1, Northbound.

## 11/19/2016 5:30:00 PM - Incident# 2802273 (0 lost trips, 5 lost minutes)

Train unable to regain full cab speed Train 606 T-325 1019-(1023)-1039 Southbound, USC Station, Track 4

# 11/21/2016 5:50:00 PM - Incident# 2803080 (0 lost trips, 8 lost minutes)

Train has self applying brakes. Train 606, T-407 (144B)-142 Track 4, 17th Street, South

#### 11/22/2016 5:36:00 AM - Incident# 2803219 (0 lost trips, 5 lost minutes)

Reports of coupler air leak. Train # 612 T-362 (1027)-1031 Santa Monica station, Southbound, Track 3

## 11/23/2016 5:27:00 AM - Incident# 2803659 (0 lost trips, 10 lost minutes)

Operator unable to engage street run Train #611 T-529 (229A)-250 Santa Monica Station, Track 3, NB

## 11/24/2016 11:17:00 PM - Incident# 2804281 (0 lost trips, 20 lost minutes)

Doors (Unable to cut-out) Train 608 T-525 249-(2290-250 Crenshaw Trk 4 N/B 20 min delay

#### 11/26/2016 2:33:00 PM - Incident# 2804755 (1 lost trip, 149 lost minutes)

Operator reports of no movement

Train 608 T414 (145)153-118 santa Monica Terminal, Trk. 3, northbound

# 11/28/2016 6:40:00 AM - Incident# 2805153 (0 lost trips, 8 lost minutes)

Propulsion / Dynamic Brakes (1043A)-1040 Train 602 T-349 La Brea, Southbound, Track 2

#### 11/29/2016 5:40:00 AM - Incident# 2805608 (0 lost trips, 6 lost minutes)

No power when pulling on master controller. Train 610 T-89 146-142 SB, 7th and Metro Center Station, Track 2 Signals checked track circuits; found no Signals issue; related M3 # 2,805,705.

## 11/29/2016 6:40:00 AM - Incident# 2805662 (0 lost trips, 6 lost minutes)

No movement with REPEATING car 1037. Train #613 T-517 (1037)-1040 NB, 7th and Metro Center Station, Track 1 Signals checked track circuits; found no Signals issue; related M3 # 2,805,705.

## 11/29/2016 6:59:00 AM - Incident# 2805679 (0 lost trips, 8 lost minutes)

No movement with REPEATING car 1039. Train 614 T-214 (1039)-1003 NB, 7th and Metro Center Station, Track 1 \*\*\*\*\*Car 1039 has no movement NUMEROUS times at this location. PLEASE look into this. Does not get stop and proceed.

## 11/29/2016 3:16:00 PM - Incident# 2806014 (0 lost trips, 12 lost minutes)

No transition to street run on car 1041B T-252, train 609 (1041B)-1021 23rd Street, track 4, south

#### 11/30/2016 6:48:00 AM - Incident# 2806282 (2 lost trips, 188 lost minutes)

Propulsion Fault with No Movement. Train 617 Train Operator T-029 Cars (240A), 250 Track 3, Downtown Santa Monica Station, Northbound

#### 11/30/2016 2:50:00 PM - Incident# 2806531 (0 lost trips, 9 lost minutes)

Train to Wayside Comm, cars #(242A)-244-232 Train #619 T-243 Santa Monica Station, Track #004, Northbound

#### 11/30/2016 5:10:00 PM - Incident# 2806600 (5 lost trips, 478 lost minutes)

Refer to M3# 2,806,591: Train to Wayside Comm, Cars #1037-1040 Train #614 T-449 23 rd Street Station ,Southbound, Track #004.

# 11/30/2016 9:21:00 PM - Incident# 2806665 (2 lost trips, 194 lost minutes)

No Movement/ No Fault Train #608 T-375 1036-1026 SB, 7th and Metro Center Station, Track #2

# Wayside Incidents:

**11/2/2016 11:02:00 AM - Incident# 2795745 (0 lost trips, 10 lost minutes)** Track personnel supporting contractors at I-10 box.

## 11/26/2016 1:53:00 PM - Incident# 2804812 (0 lost trips, 20 lost minutes)

ARINC SYSTEM indicates switch 3 at the Washington / Flower junction as being out of correspondence.

# 11/29/2016 12:00:00 PM - Incident# 2805941 (0 lost trips, 10 lost minutes)

Walking Track Inspection: Sepulveda to Bundy

# Police & Health Incidents:

**11/1/2016 7:08:00 AM - Incident# 2795244 (55 lost trips, 5,170 lost minutes)** Operator reports a suspicious device to field supervisor at the terminal.

## 11/1/2016 8:00:00 PM - Incident# 2795533 (0 lost trips, 10 lost minutes)

Operator reports of a female having a panic attack. Train 601 T-459 (1026)1031 Farmdale station, Trk. 4, southbound

11/3/2016 8:08:00 PM - Incident# 2796399 (14 lost trips, 1,316 lost minutes)

Culver/LASD reports a box on top of an elevator with batteries inside.

# 11/4/2016 8:35:00 PM - Incident# 2796833 (1 lost trip, 119 lost minutes)

Patron assaulted, medical assistance is required. Western Station Train #609, T-126, track #3, northbound. Consist 153(161).

# 11/14/2016 5:46:00 PM - Incident# 2800329 (0 lost trips, 10 lost minutes)

Train 617, Car 154, reporting a black male with black shirt and with a knife. T-509 USC/Expo Station, Track 3, northbound.

# 11/14/2016 5:46:00 PM - Incident# 2800340 (0 lost trips, 6 lost minutes)

Train 617, Car 154, reporting a black male, wearing a black shirt and havinf a knife. T-509

USC/Expo Station, Track 3, northbound.

**11/16/2016 8:45:00 PM - Incident# 2801606 (0 lost trips, 5 lost minutes)** 7th and Metro/Operator reports passengers are self evacuating from Signal 1N.

**11/18/2016 4:50:00 PM - Incident# 2802079 (16 lost trips, 1,504 lost minutes)** LASD- Mendoza reports man with bomb, and a gun.

**11/18/2016 9:40:00 PM - Incident# 2802114 (0 lost trips, 12 lost minutes)** Trespasser lying between tracks at Farmdale Station

**11/20/2016 5:38:00 PM - Incident# 2802548 (0 lost trips, 14 lost minutes)** Train 604 reports patron slipped and fell onto right of way

**11/20/2016 5:52:00 PM - Incident# 2802577 (8 lost trips, 1,156 lost minutes)** Pickup truck stuck on the right of way blocking track #4 @ Expo/Normandie Ave.

# 11/22/2016 12:29:00 PM - Incident# 2803411 (0 lost trips, 9 lost minutes)

LASD/TSB-Dixon advises "hold" all train movement due to fact Deputy detaining felony suspect at gun point.

# 11/30/2016 4:32:00 PM - Incident# 2806587 (1 lost trip, 98 lost minutes)

Slip/Fall, Cars #146-142 Train #612 T-412 La Brea Station, Track #004, Southbound

11/30/2016 5:09:00 PM - Incident# 2807249 (0 lost trips, 6 lost minutes)

# **Other Incidents:**

**11/1/2016 2:12:00 PM - Incident# 2795418 (18 lost trips, 1,692 lost minutes)** Trains 606, 608 and 618 were cancelled due to no train operators.

## 11/2/2016 4:51:00 AM - Incident# 2795602 (0 lost trips, 10 lost minutes)

Train delay on the pull out. Train 610 T-510 (1042-1021) Expo Yard 10 minute delay

# 11/4/2016 4:46:00 AM - Incident# 2796488 (0 lost trips, 7 lost minutes)

Train 610 due at yard limits at 0446hrs did not pull out until 0453hrs

# 11/4/2016 6:49:00 AM - Incident# 2796513 (2 lost trips, 188 lost minutes)

Cancelled trip No equipment Train 618 T268 Expo Yard Pull Out

# 11/7/2016 6:49:00 AM - Incident# 2797338 (2 lost trips, 188 lost minutes)

Train Delay due to no equipment.

# 11/8/2016 5:37:00 AM - Incident# 2797821 (0 lost trips, 10 lost minutes)

Bundy IL signal-6S, Train-613 T-354 consist #149-141 schedule pull-out at 5:37 hours with actual pull-out 5:47 hours (Note: Yard Control advises out-late due to fact consist still being put together at Expo Yard).

# 11/10/2016 5:23:00 AM - Incident# 2798747 (0 lost trips, 7 lost minutes)

26th St IL, signal-8S Train-612 T-241 consist #1047-1034 scheduled to pull-out at 5:23 hours with actual pull-out at 5:33 hours. According to Expo Yard Control, Train Operator had routing from storage lane to signal and unknown reason for delay.

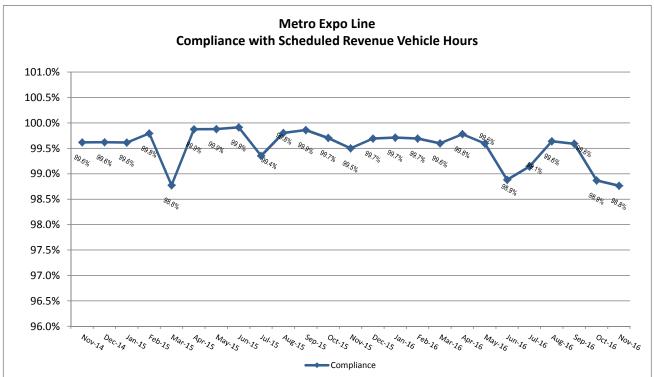
# 11/14/2016 6:58:00 AM - Incident# 2799988 (1 lost trip, 94 lost minutes)

Train 619 T-405 Main Yard IL South Cars

# 11/20/2016 4:26:00 AM - Incident# 2802334 (0 lost trips, 10 lost minutes)

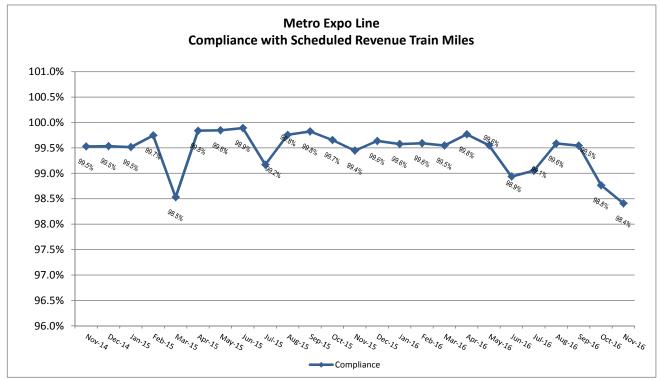
Out late Train 605 T-241 Cars 103-162-107 Bundy IL

# **MEASURES OF THE OVERALL SERVICE IMPACT OF RAIL INCIDENTS**

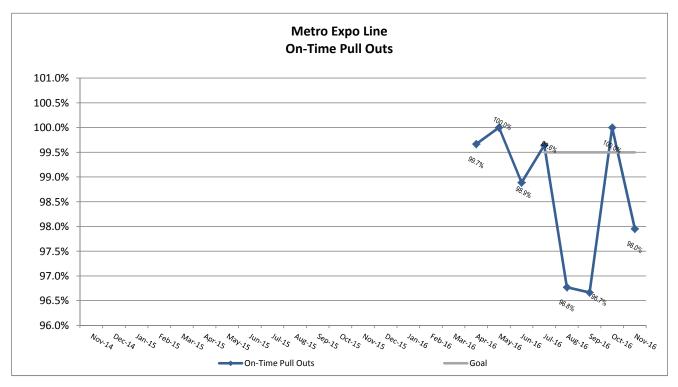


#### COMPLIANCE WITH SCHEDULED VEHICLE HOURS CHART

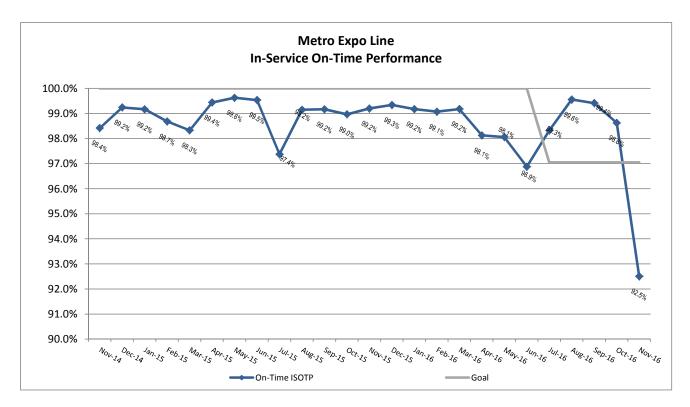
# COMPLIANCE WITH SCHEDULED TRAIN MILES CHART



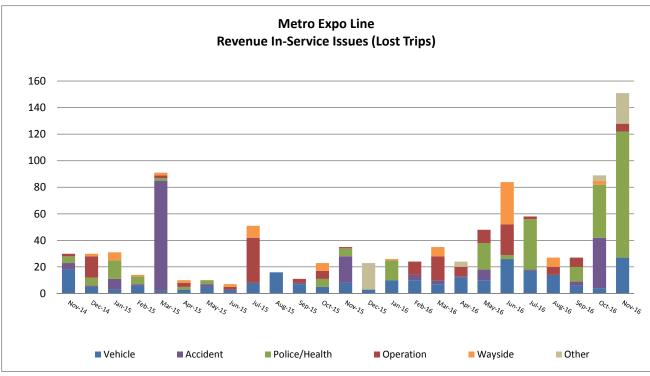




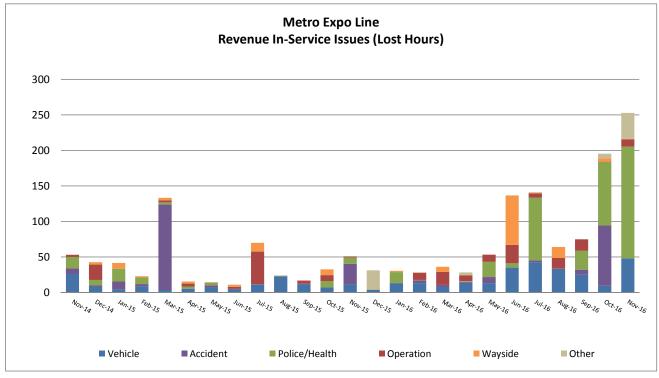
# IN-SERVICE ON-TIME PERFORMANCE CHART

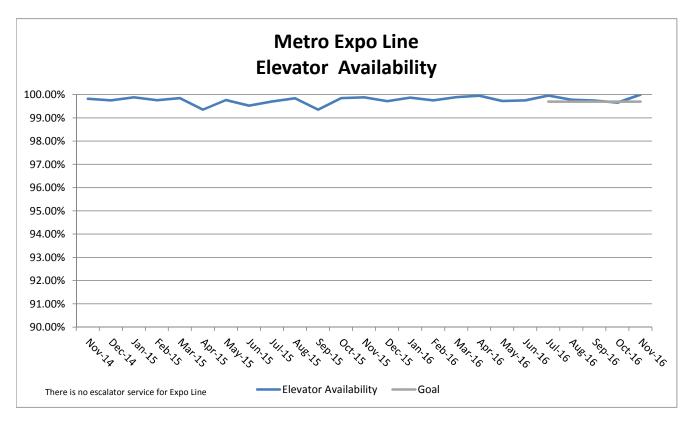






# LOST HOURS





# VERTICAL TRANSPORTATION AVAILABILITY