



Rail Fleet Services Monthly Report March 2015



Metro

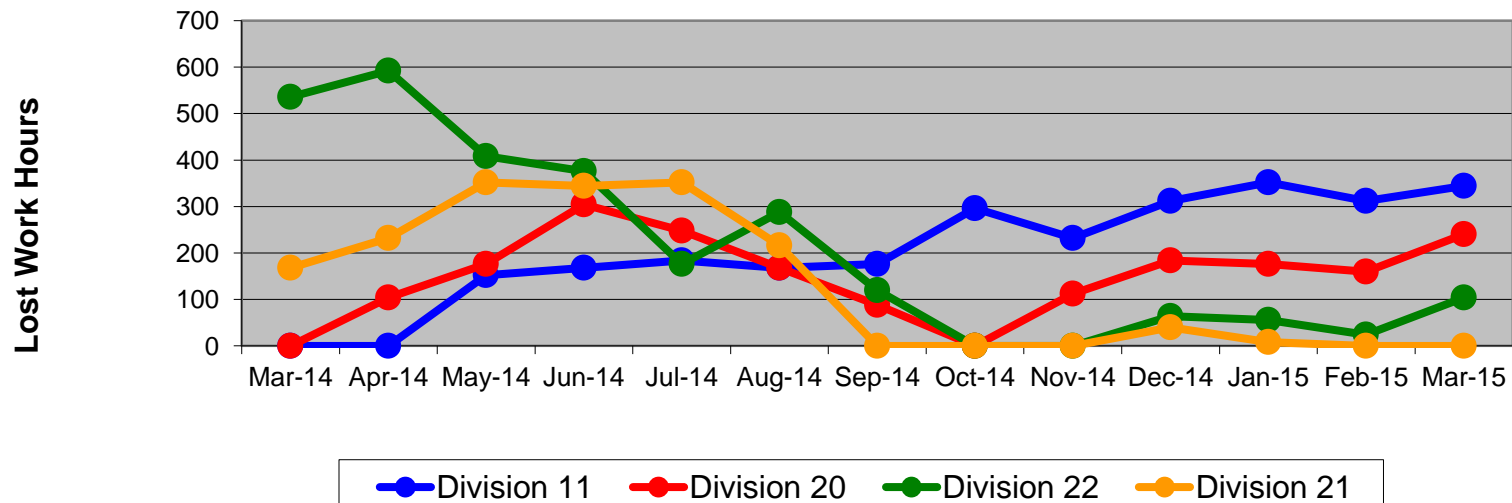
Table of Contents

•	Safety		
	- Industrial Injuries	Page	3
	- Rail Vehicle Accidents & Major Incidents	Page	4
•	Customer Service		
	- Service Delivery – AM/PM Pull-Outs	Page	5
	- Vehicle Utilization – Blue Line & Green Line	Page	6
	- Vehicle Utilization – Red Line & Gold Line	Page	7
	- All Train Delay Incidents	Page	8
	- Mean Miles Between Failures (Major)	Page	9
	- Mileage Between Data Range (by month)	Page	10
•	Business Processes		
	- Top Incident Categories	Page	11
	- Major Incidents	Page	12
	- Preventive Maintenance Compliance	Page	13
	- RFS Wrench Turning	Page	14
•	Finance		
	- Vandalism & Graffiti Costs	Page	15
	- Graffiti Pictures	Page	16
	- Labor & Material Costs	Page	17
	- Cost per mile	Page	18
	- Absence vs. Overtime	Page	19
•	Growth		
	- RFS Instruction Department Activities	Page	20

Industrial Injuries – Lost Work Hours March 2014-2015

	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	13-Month Period
Division 11	0	0	152	168	184	168	176	296	232	312	352	312	344	2,696
Division 20	0	104	176	304	248	168	88	0	112	184	176	160	240	1,960
Division 22	536	592	408	376	176	288	120	0	0	64	56	24	104	2,744
Division 21	168	232	352	344	352	216	0	0	0	40	8	0	0	1,712
Totals	704	928	1,088	1,192	960	840	384	296	344	600	592	496	688	9,112

Industrial Injuries (lost work hours)



Rail Vehicle Accidents & Major Incidents

March 2014-2015

Repair Costs	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	13-Month Period
Blue/Expo Line	\$13,690	\$72,961	\$9,463	\$9,964	\$1,528	\$207	\$42,690	\$12,945	\$5,762	\$3,463	\$9,301	\$17,834	\$17,322	\$217,130
Red/Purple Line	\$356	\$0	\$0	\$0	\$0	\$0	\$0	\$4,194	\$0	\$0	\$0	\$0	\$0	\$4,550
Green Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$267	\$0	\$0	\$0	\$0	\$0	\$267
Gold Line	\$714	\$0	\$0	\$5,860	\$50,059	\$1,669	\$0	\$0	\$0	\$5,664	\$0	\$315	\$0	\$64,281
Totals	\$14,760	\$72,961	\$9,463	\$15,824	\$51,587	\$1,876	\$42,690	\$17,406	\$5,762	\$9,127	\$9,301	\$18,149	\$17,322	\$286,228

Rail Vehicle Accident Costs - March 2015				
Date	Incident #	Problem Code	Incident Description	Repair Cost
Metro Blue/Expo Line				
3/7/15	2570184	Derailment	A 10-75 was reported. Artesia interlocking, Train 111.	\$ 8,425
3/8/15	2570405	Train vs. Other	Train vs Canine, Train 102 at 124th Grade crossing, Track 1, Northbound.	\$ -
3/11/15	2571573	Train vs. Other	Train vs Patron's suitcase, Train 108 at Adams Intersection, Track 3, Northbound.	\$ -
3/23/15	2575712	Train vs. Other	Train vs Crossing Gate, Train 101 at Gage Grade crossing, Track 1, Northbound.	\$ 4,258
3/28/15	2577866	Train vs. Vehicle	A 10-73 was reported at USC/EXPO Track 3, Northbound. The incident was escalated to derailment.	\$ 4,639
Total				\$ 17,322
Grand Total				\$ 17,322
(10-71) = Train vs. Object, (10-72) = Train vs. Pedestrian, (10-73) = Train vs. Vehicle (10-74) = Train vs. MTA Vehicle, (10-75) = Derailment				

Note: Repair costs are only the expenses captured during the time period of the report. Actual costs may be significantly higher, if repairs are spread out over several months.

Service Delivery March 2015

March 2015 - Service Delivery

Blue/Expo Line Fleet Size: 92

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	78	79	101%
Weekend:	60	63	105%
Late Pullouts: 1			
Monthly Mileage:	620,066		

Red/Purple Line Fleet Size: 104

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	74	78	105%
Weekend:	54	68	126%
Late Pullouts: 0			
Monthly Mileage:	632,588		

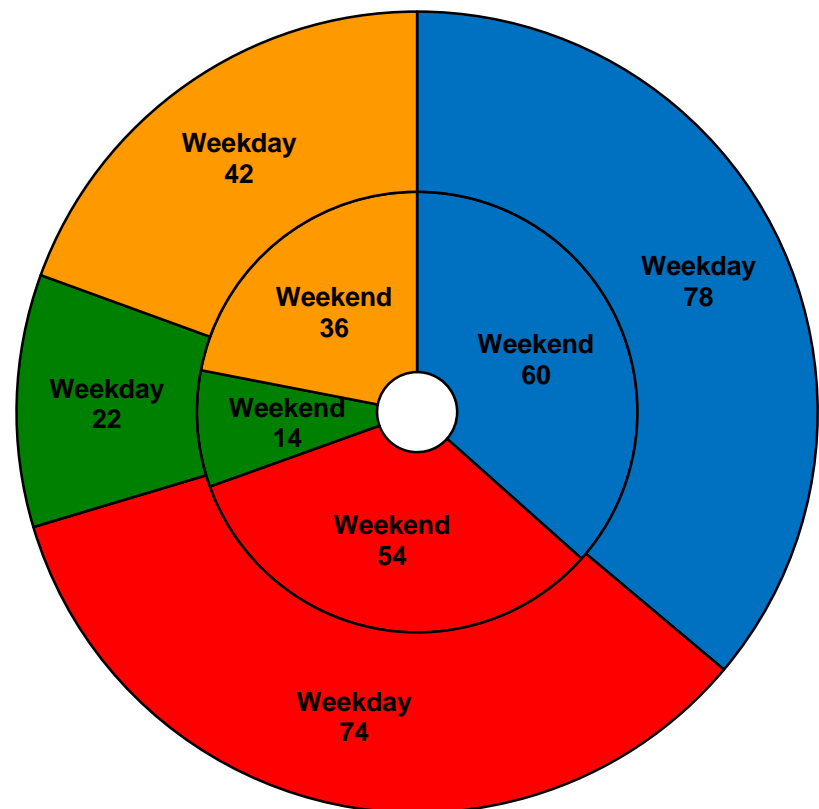
Green Line Fleet Size: 29

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	22	22	100%
Weekend:	14	16	114%
Late Pullouts: 0			
Monthly Mileage:	231,648		

Gold Line Fleet Size: 50*

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	42	43	102%
Weekend:	36	41	114%
Late Pullouts: 0			
Monthly Mileage:	323,855		

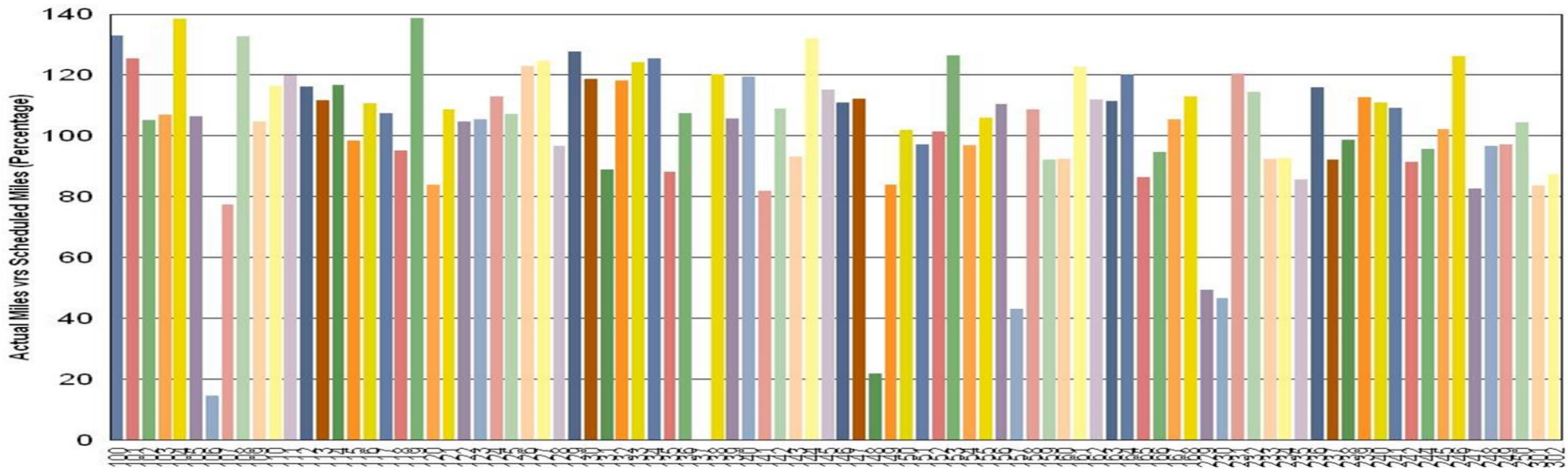
*One P2550 LRV is currently assigned at the Foothill Extension for acceptance testing.



■ Blue/Expo Line ■ Red/Purple Line ■ Green Line ■ Gold Line

Vehicle Utilization March 2015

Metro Blue/Expo Line (92 Cars)



Blue/Expo Line: The following cars were out of service due to:

Car # 106 Multiple (repeater) failures for Propulsion/Dynamic Faults

Car # 137 Major Accident Repair and ongoing Recertification/Acceptance Testing

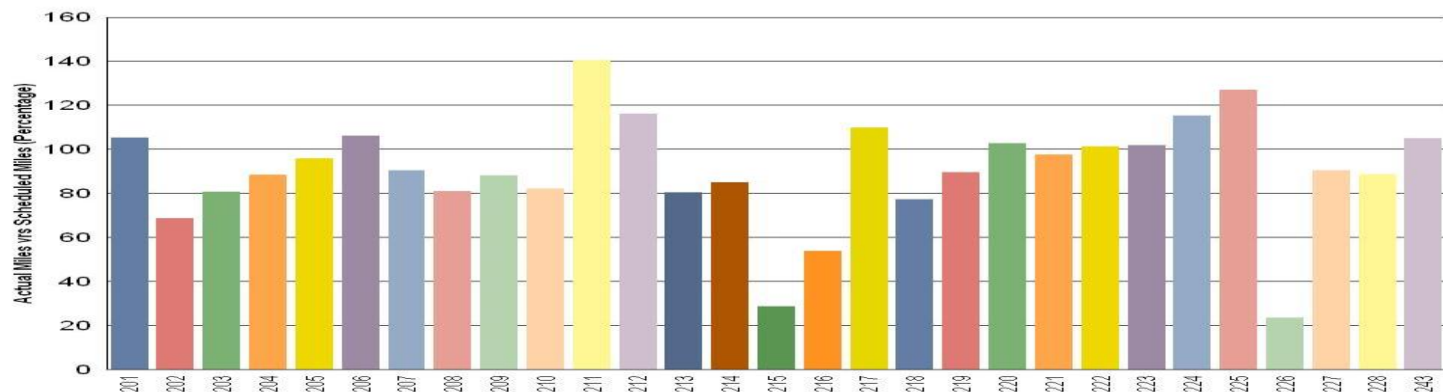
Car # 148 Overhaul, Open work orders, and Floor repair

Metro Green Line (29 Cars)

Green Line: The following cars were out of service due to:

Car # 215 Exterior Paint/Body Rehab

Car # 226 Propulsion Fault



Note: Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.

Vehicle Utilization March 2015

Red/Purple Line:

The following cars were out of service due to:

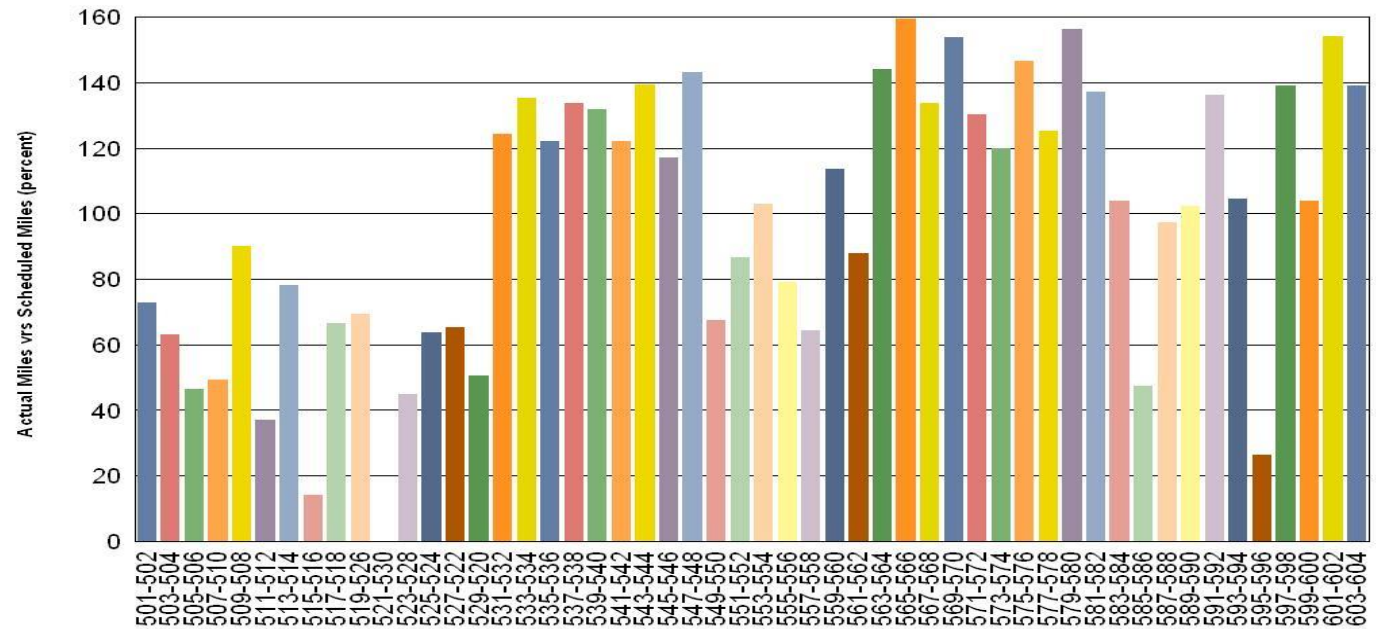
Car # 511-512 Floor Repair and HVAC Overhaul

Car # 515-516 Auxiliary Power Failure

Car # 521-530 Waiting for Traction Motor

Car # 595-596 45,000-mile Inspection

Metro Red/Purple Line (104 Cars)

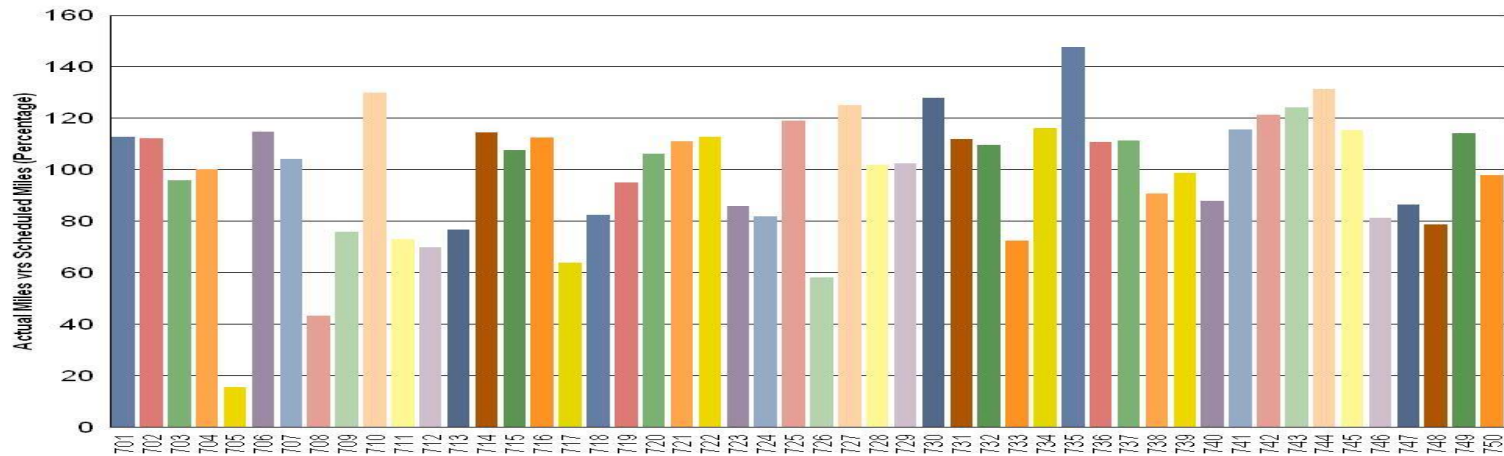


Gold Line:

The following car was out of service due to:

Car # 705 120,000-mile Inspection

Metro Gold Line (50 Cars)



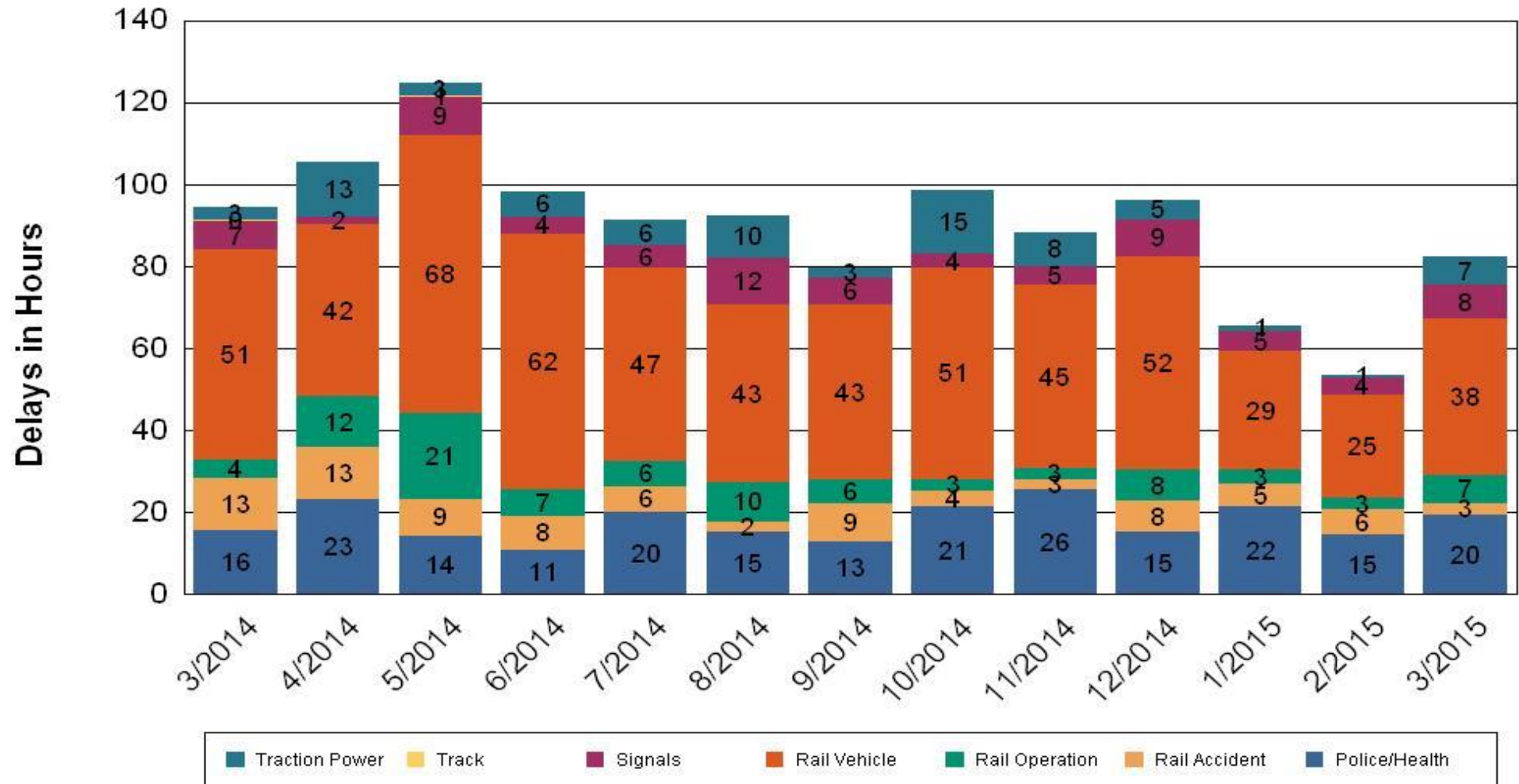
•Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.



All Train Delays (Hours) March 2014-2015

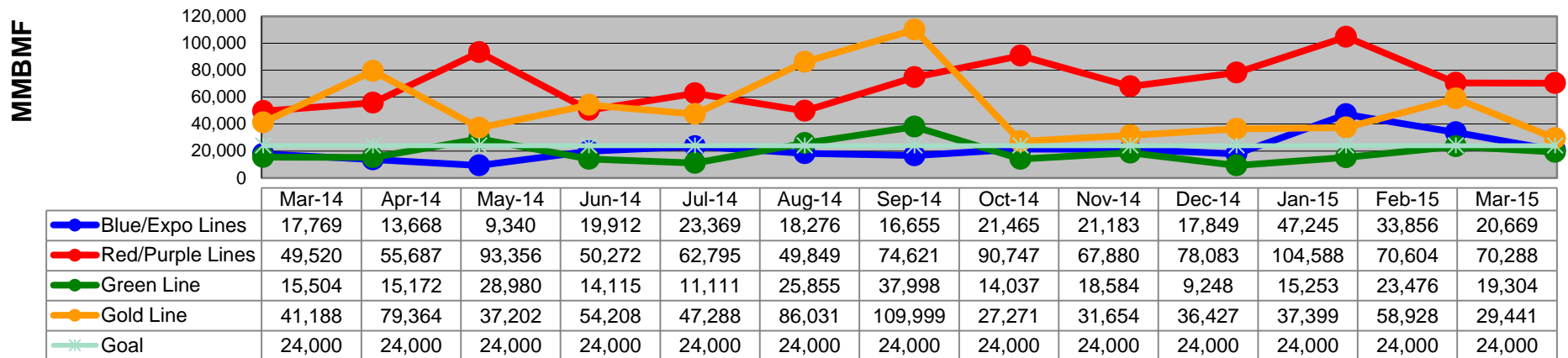
All Train Delays

Totals Include the delay to all trains involved (not just the primary incident)

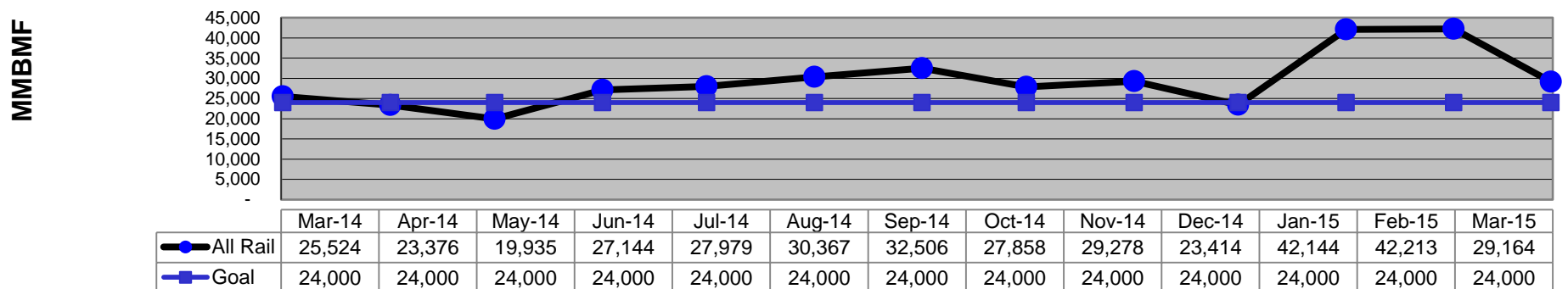


Mean Miles Between Failures (Major) March 2014-2015

Mean Miles Between Major Failures (by line)

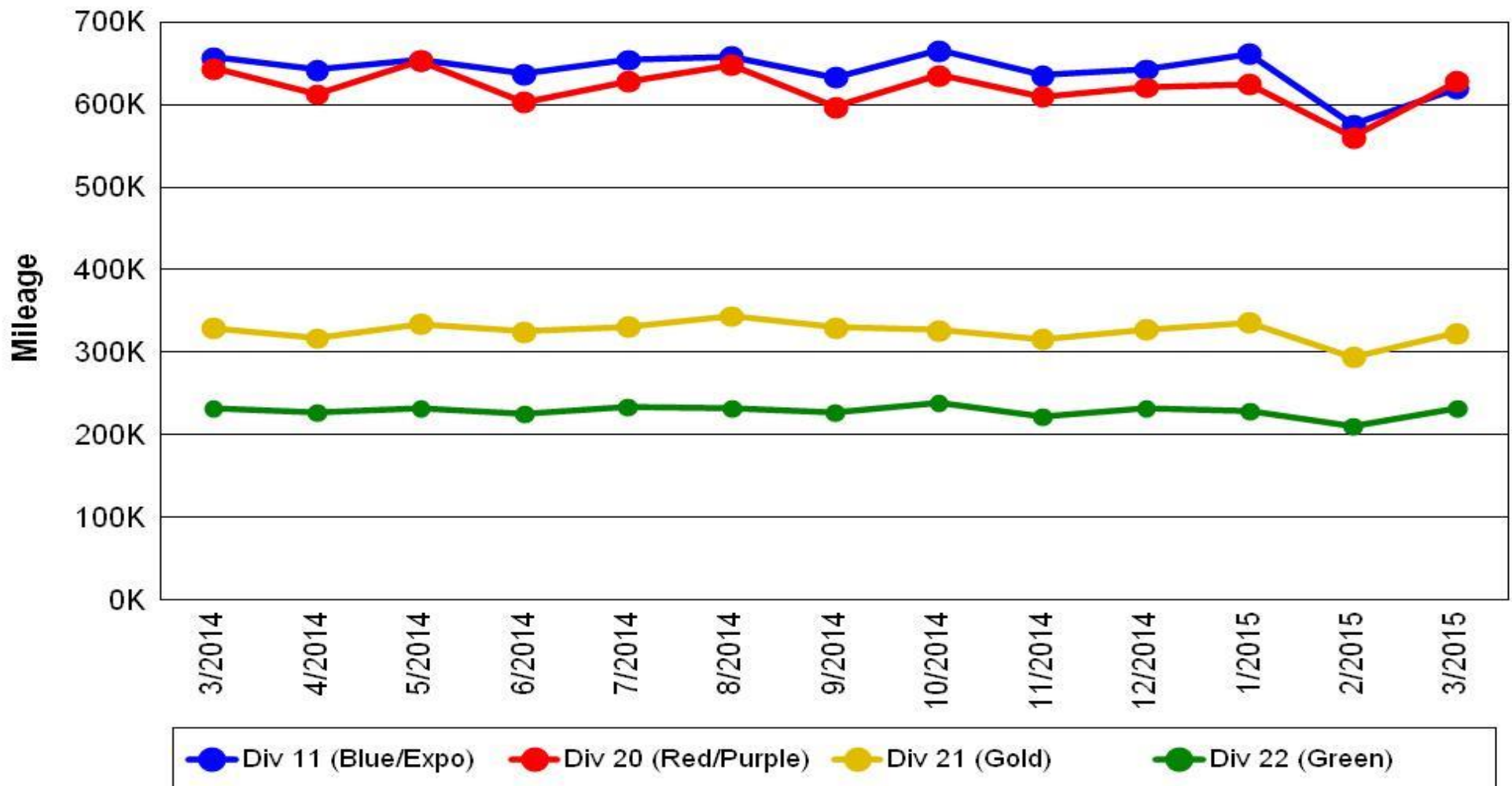


Mean Miles Between Major Failures (all)



Mileage Between Data Range (by month) March 2014-2015

Rail Division Monthly Mileage

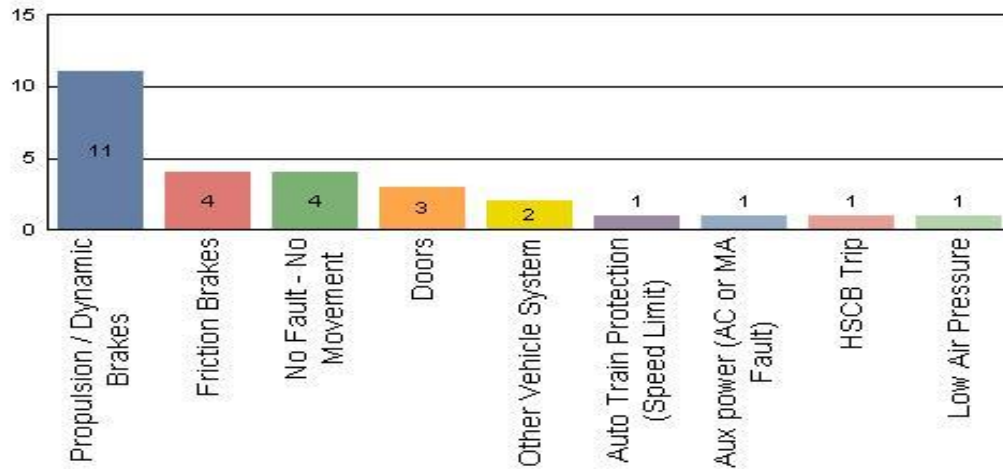


Top Incident Categories

March 2015

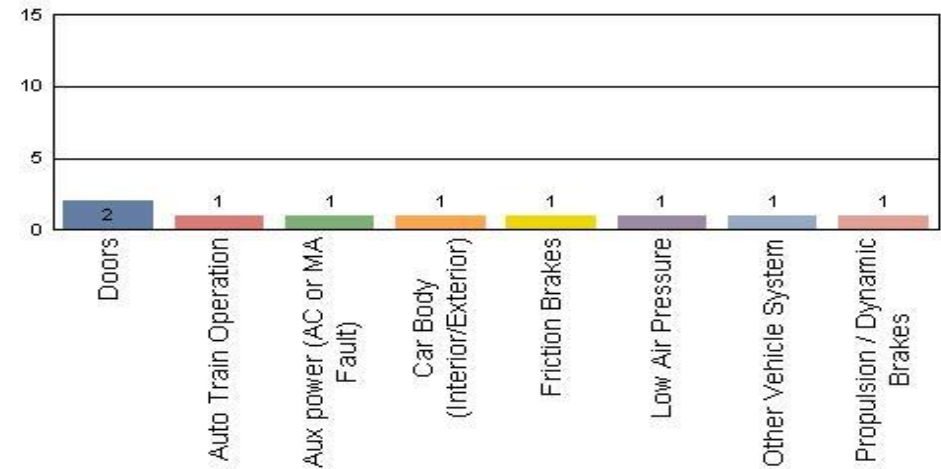
Metro Blue/Expo Line

Top Incident Categories



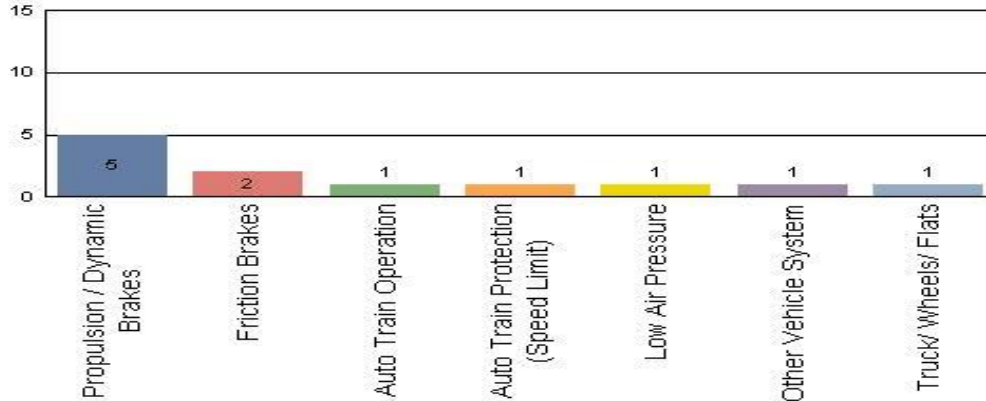
Metro Red/Purple Line

Top Incident Categories



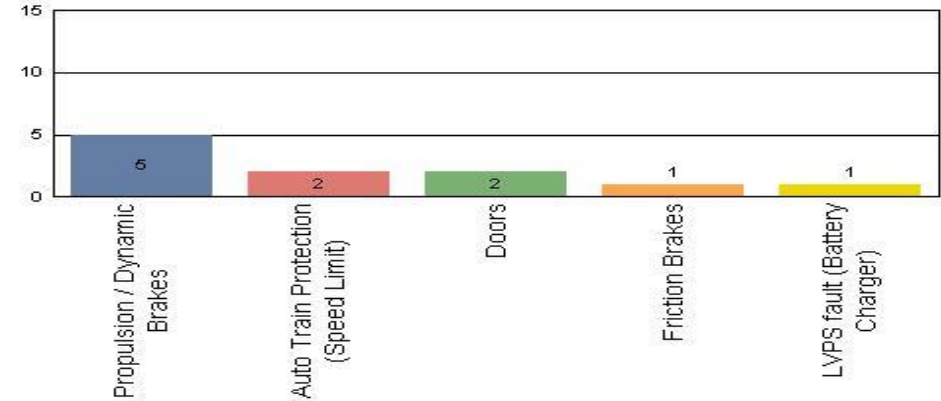
Metro Green Line

Top Incident Categories



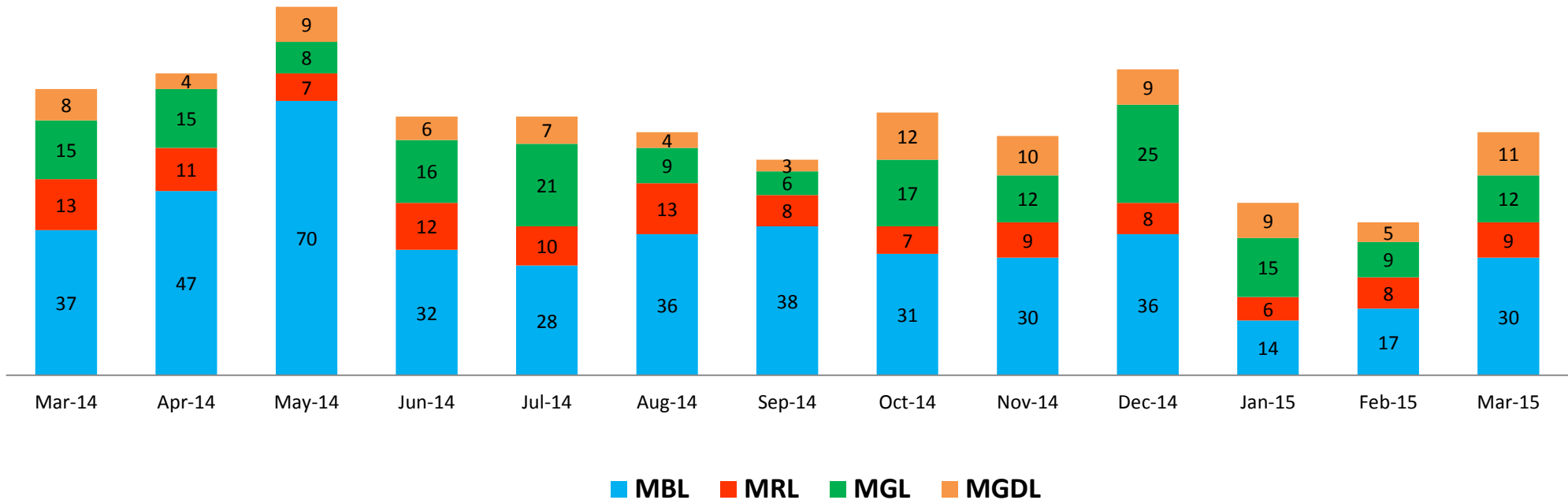
Metro Gold Line

Top Incident Categories



Major Incidents March 2014-2015

Numbers of Major System Failures (by Line)



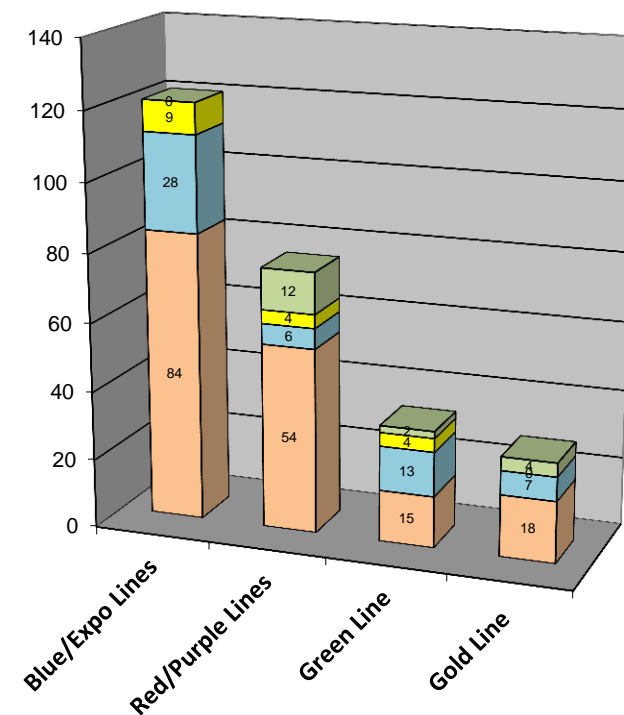
Preventive Maintenance Compliance

March 2014-2015

PM Compliance	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Blue/Expo Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Red/Purple Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Green Line	100%	100%	100%	97%	100%	100%	100%	100%	97%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

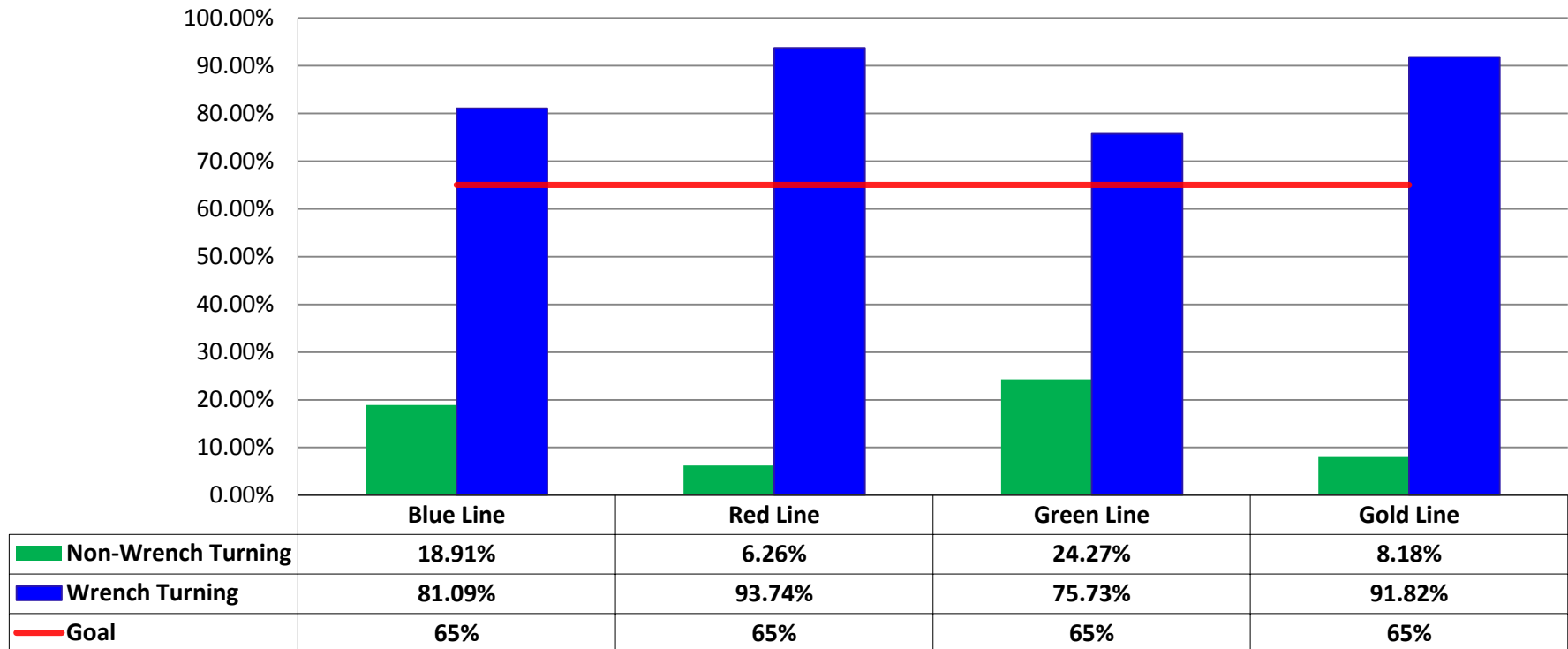
Number of Preventive Maintenance Inspections - March 2015					
Line	A level	B level	C level	D level	Totals
Blue/Expo Lines	84	28	9	0	121
Red/Purple Lines	54	6	4	12	76
Green Line	15	13	4	2	34
Gold Line	18	7	0	4	29
Totals:	171	54	17	18	260

Explanation of PM Inspection levels		Miles			
Line	Type	A level	B level	C level	D level
Blue/Expo Lines	P865/P2020	5,000	15,000	30,000	60,000
Blue/Expo Lines	P2000	7,500	22,500	45,000	90,000
Red/Purple Lines	A650	7,500	22,500	45,000	90,000
Green Line	P2000	7,500	22,500	45,000	90,000
Gold Line	P2550	10,000	30,000	60,000	120,000



RFS Wrench Turning March 2015

RFS - Wrench Turning March 2015

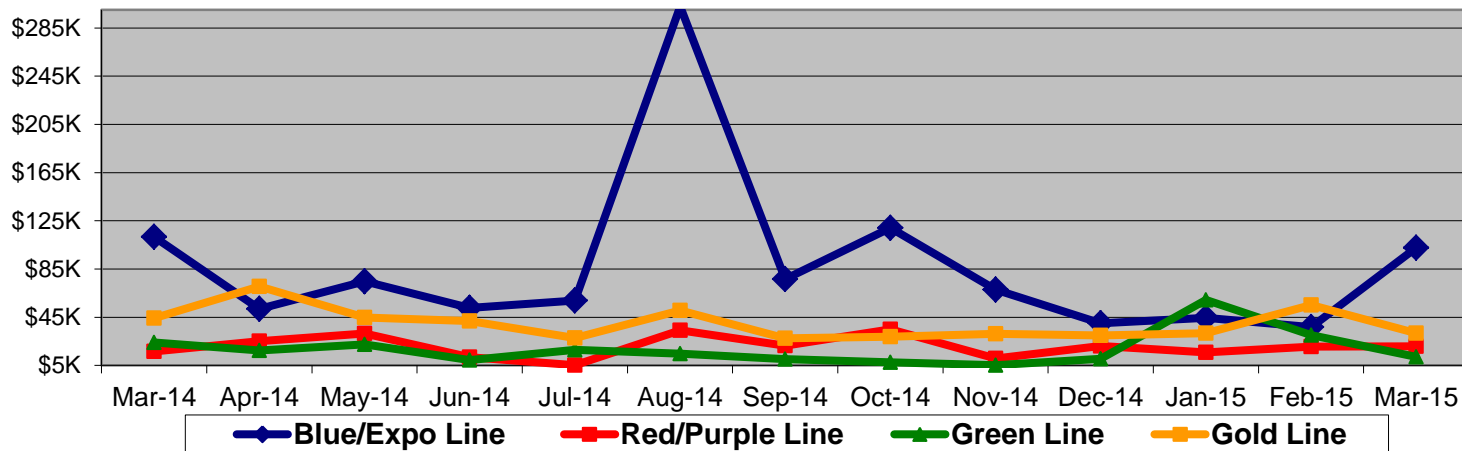


Notes: Labor hours contributed by Maint Specialist Leader, Rail Body/Paint Repair Leader, and Maint Specialist Temporary Leader

Vandalism & Graffiti Report

March 2014-2015

	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	13-Month Period
Blue/Expo Line	\$112K	\$52K	\$75K	\$53K	\$59K	\$303K	\$77K	\$119K	\$68K	\$40K	\$45K	\$37K	\$103K	\$1140K
Red/Purple Line	\$17K	\$25K	\$32K	\$12K	\$5K	\$34K	\$22K	\$35K	\$11K	\$21K	\$16K	\$21K	\$21K	\$270K
Green Line	\$24K	\$17K	\$22K	\$9K	\$18K	\$15K	\$10K	\$8K	\$5K	\$10K	\$59K	\$30K	\$12K	\$242K
Gold Line	\$44K	\$71K	\$45K	\$42K	\$28K	\$51K	\$28K	\$29K	\$31K	\$30K	\$32K	\$55K	\$32K	\$516K
Totals:	\$197K	\$165K	\$173K	\$116K	\$110K	\$402K	\$136K	\$190K	\$115K	\$102K	\$152K	\$143K	\$167K	\$2,168K



March 2015 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows Replaced	347	\$ 30,240	\$ 46,421	\$ 76,661
Vandal Shields Replaced	1,082	\$ 26,986	\$ 23,246	\$ 50,232
Seats Cleaned	392	\$ 1,498	\$ -	\$ 1,498
Seats Inserts Replaced	200	\$ 6,458	\$ 7,314	\$ 13,772
Graffiti Removal - Other	1,121	\$ 9,768	\$ -	\$ 9,768
Repainting Panels	190	\$ 11,970	\$ 3,479	\$ 15,449
Totals	3,332	\$ 86,920	\$ 80,460	\$ 167,380

Graffiti Pictures

March 2015

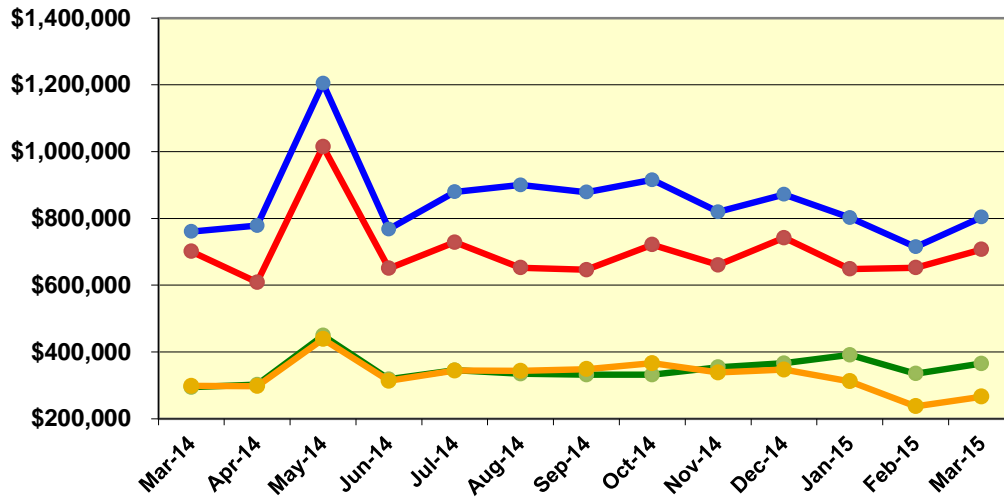
Blue Line



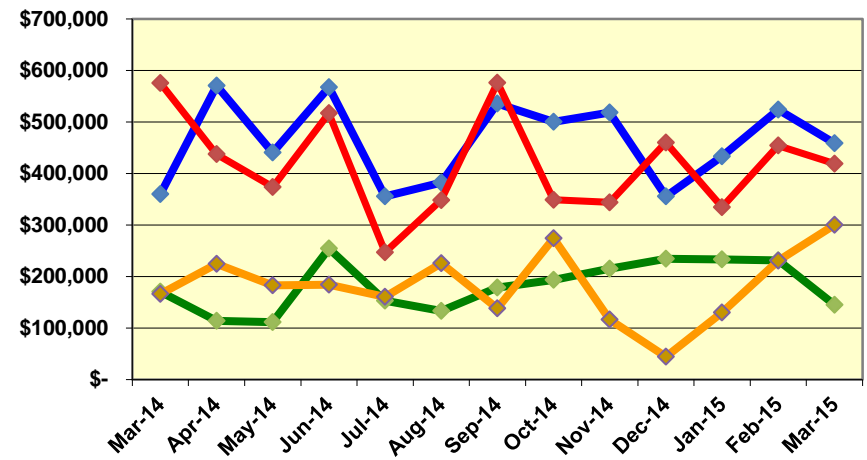
Labor and Material Costs

March 2014-2015

Labor Costs



Material Costs



Mar-14	Apr-14	May-15	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
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Labor Costs

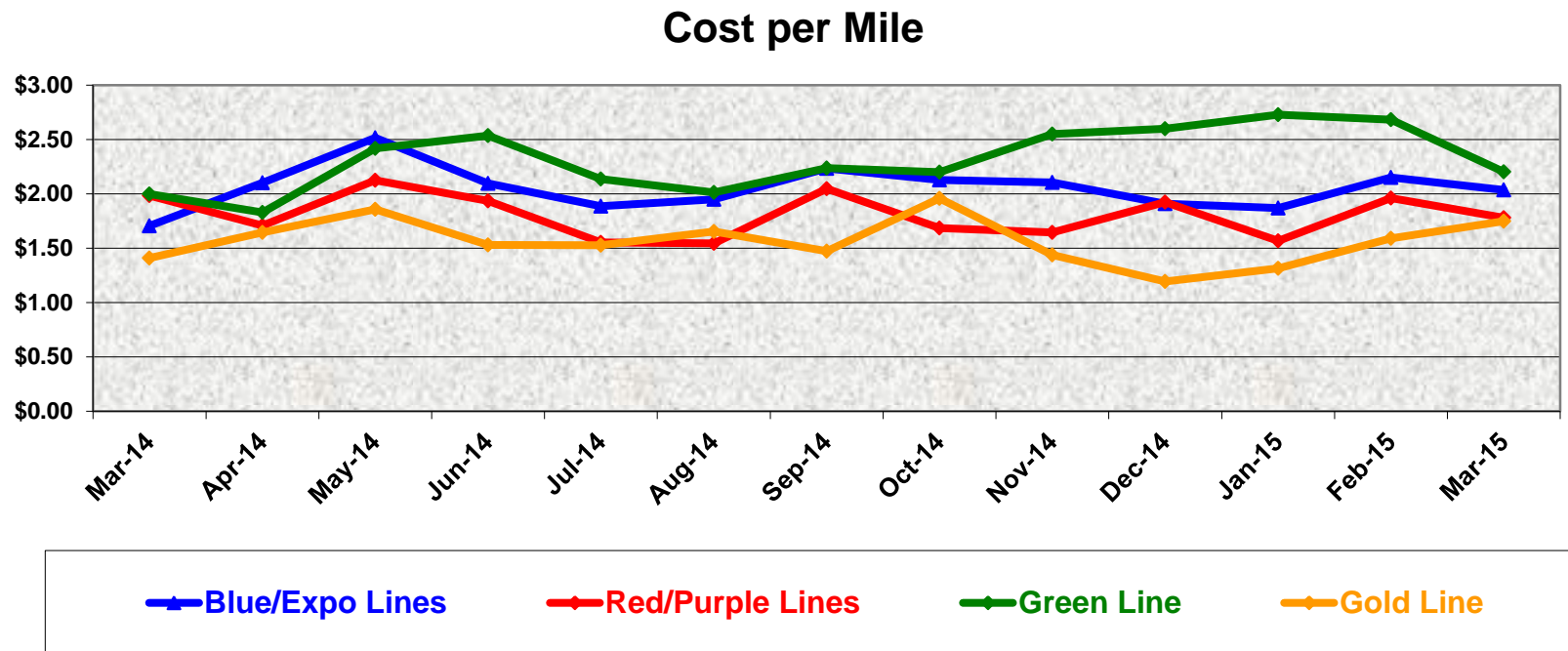
	Mar-14	Apr-14	May-15	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Blue/Expo Lines	\$ 760,511	\$ 778,469	\$ 1,204,234	\$ 767,717	\$ 879,339	\$ 900,043	\$ 878,598	\$ 915,432	\$ 819,497	\$ 871,682	\$ 802,256	\$ 714,349	\$ 803,757
Red/Purple Lines	\$ 701,156	\$ 608,816	\$ 1,015,092	\$ 650,226	\$ 728,383	\$ 652,202	\$ 645,981	\$ 721,060	\$ 660,321	\$ 741,908	\$ 648,538	\$ 652,406	\$ 706,794
Green Line	\$ 294,381	\$ 302,213	\$ 449,117	\$ 318,516	\$ 345,270	\$ 334,772	\$ 331,870	\$ 331,661	\$ 354,058	\$ 366,422	\$ 391,161	\$ 334,919	\$ 365,457
Gold Line	\$ 298,069	\$ 297,634	\$ 438,759	\$ 313,589	\$ 344,331	\$ 343,246	\$ 348,288	\$ 366,248	\$ 338,610	\$ 347,182	\$ 311,868	\$ 237,438	\$ 265,835
Totals	\$ 2,054,117	\$ 1,987,132	\$ 3,107,202	\$ 2,050,048	\$ 2,297,323	\$ 2,230,262	\$ 2,204,736	\$ 2,334,400	\$ 2,172,486	\$ 2,327,193	\$ 2,153,823	\$ 1,939,112	\$ 2,141,842

Material Costs

	Mar-14	Apr-14	May-15	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Blue/Expo Lines	\$ 359,845	\$ 570,775	\$ 440,576	\$ 567,257	\$ 355,405	\$ 382,184	\$ 536,100	\$ 500,390	\$ 518,334	\$ 355,729	\$ 433,347	\$ 524,157	\$ 458,588
Red/Purple Lines	\$ 575,495	\$ 437,612	\$ 373,815	\$ 516,934	\$ 247,048	\$ 348,370	\$ 576,230	\$ 349,031	\$ 343,936	\$ 460,076	\$ 334,623	\$ 454,326	\$ 419,099
Green Line	\$ 170,250	\$ 113,979	\$ 111,344	\$ 254,264	\$ 153,001	\$ 133,386	\$ 178,206	\$ 193,176	\$ 214,902	\$ 234,118	\$ 233,318	\$ 231,562	\$ 144,927
Gold Line	\$ 166,216	\$ 224,430	\$ 183,115	\$ 183,869	\$ 160,751	\$ 225,818	\$ 137,883	\$ 274,059	\$ 116,179	\$ 44,498	\$ 130,036	\$ 230,896	\$ 300,170
Totals	\$ 1,271,807	\$ 1,346,796	\$ 1,108,849	\$ 1,522,323	\$ 916,204	\$ 1,089,759	\$ 1,428,418	\$ 1,316,657	\$ 1,193,351	\$ 1,094,420	\$ 1,131,324	\$ 1,440,941	\$ 1,322,783

Cost Per Mile March 2014-2015

Cost per mile:	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
Blue/Expo Lines	\$1.70	\$2.10	\$2.52	\$2.10	\$1.89	\$1.95	\$2.24	\$2.13	\$2.11	\$1.91	\$1.87	\$2.15	\$2.04
Red/Purple Lines	\$1.98	\$1.71	\$2.13	\$1.93	\$1.55	\$1.54	\$2.05	\$1.68	\$1.64	\$1.92	\$1.57	\$1.96	\$1.78
Green Line	\$2.00	\$1.83	\$2.42	\$2.54	\$2.14	\$2.01	\$2.24	\$2.20	\$2.55	\$2.60	\$2.73	\$2.68	\$2.20
Gold Line	\$1.41	\$1.64	\$1.86	\$1.53	\$1.53	\$1.65	\$1.47	\$1.96	\$1.44	\$1.19	\$1.31	\$1.59	\$1.75



ATU Absences vs. Overtime

March 2015

ABSENCE TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	Total
AWP-ABSENT W/O PERMISSION	-	-	96	-	96
BER-BEREAVEMENT	112	48	64	-	224
CTO-COMPENSATORY TIME OFF	449	427	185	204	1,265
CUT-EMPLOYEE LEAVES EARLY	-	1	-	-	1
DSL-DISABILITY LEAVE/LONG	1,008	264	176	-	1,448
EFH-EMG. FLOAT HOL.	8	8	16	8	40
ETO-EXCUSED TIME OFF	90	43	16	35	184
FMI-FAM IND INJURY	168	96	184	-	448
FML-FAMILY CARE LEAVE	552	479	129	172	1,332
FMS-FAMILY LEAVE SICK	160	106	32	60	358
HLF-HOLIDAY FLOATING	264	112	88	152	616
II-INDUSTRIAL INJURY	-	-	104	-	104
IIR-INDUS INJURY -REOCCUR.	-	160	-	-	160
JUR-JURY DUTY	32	8	-	-	40
LC1-LABOR CODE 233	352	329	116	182	978
LTI-OCCPIL/LONGTRM INJ LEAVE	344	80	-	-	424
OWP-OFF WITH PERMISSION	-	16	-	-	16
RTO-REQUESTED TIME OFF-NO PAY	16	-	8	1	25
SCK-SICK PAY	131	258	44	104	537
SCW-SICK WITHOUT PAY	-	94	133	74	301
SPN-SCHOOL PARTNER NOT PAID	-	16	-	-	16
SUS-DISCIPLINARY SUSPENSION	-	-	8	16	24
TAR-TARDY	2	1	2	1	7
UNP-UNION BUS PAID	-	-	5	-	5
VAC-VACATION	1,067	1,024	248	288	2,627
Total Absence Hours	4,755	3,570	1,654	1,297	11,276
ATU Number of Work Force (budget)	125	104	46	48	323
Full Work Force hours/month*	21,663	18,023	7,972	8,318	55,976
Absence as a % of Work Force	22%	20%	21%	16%	20%

OVERTIME TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	Total
CTB-COMPENSATORY TIME TO BANK	208	208	8	72	496
OTP-PREM OVERTIME	5,262	4,198	2,302	1,275	13,037
WLO-Worked Lunch Overtime	175	250	85	46	554
Total Overtime Hours	5,645	4,656	2,394	1,392	14,087
Overtime as a % of Work Force	26%	26%	30%	17%	25%

*Estimated number of work force hours, using budgeted FTE's for calculation

Note: Overtime also covers other required activities, including Training, Component Overhaul, and Special Events.



Metro

RFS Instruction Department Activities

March 2015

Training classes completed during the month of March 2015

Description	Course Hours	Student Count	Training Hours
Blue & Expo Line Training - (P865/2020 & P2000 LRV):			
RFS 865/2020 M.A. & LVPS	52	6	312
RFS 865/2020 VEHICLE INTRO	16	7	112
RFS 2-WEEK RAIL INTRODUCTION	80	2	160

Total Blue Line Training (Hours): 584

Green Line Training (P2000 LRVs):

RFS SIEMENS 2000 CARBODY	24	3	72
RFS SIEMENS 2000 T/B, SANDERS	8	3	24
RFS SIEMENS 2000 COMMUNICATIONS	24	3	72
RFS SIEMENS 2000 LIGHTS & DEST SIGN	16	3	48
RFS SIEMENS 2000 COUPLER	8	3	24
RFS SIEMENS 2000 PANTOGRAPH	8	3	24
RFS 2-WEEK RAIL INTRODUCTION	80	2	160

Total Green Line Training (Hours): 424

Gold Line Training (P2550 LRVs):

RFS ANSALDOBREDA 2550 PANTOGRAPH/HIGH VOLTAGE DIST.	40	8	320
HAZARD COMMUNICATION FOR EMPLOYEES	1	5	5
RFS ANSALDOBREDA 2550 CARBODY	16	8	128

Total Gold Line Training (Hours): 453

JAC Training (P2000 LRVs):

RFS SIEMENS 2000 VEHICLE SYSTEMS	40	8	48
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Total JAC Training (Hours): 48

Total RFS Instruction for the month of March 2015 (Hours): 1,509

Other Instruction Activities

Wheel True Machine Acceptance (Monrovia)	80
Instructional Design Workshop	72
A650 Curriculum, Administrative, and Technical Support	160
P865/P2020 Curriculum, Administrative, and Technical Support	40
P2000 Curriculum, Administrative, and Technical Support	80
P2550 Curriculum, Administrative, and Technical Support	80

Total Other Instruction Activities 512

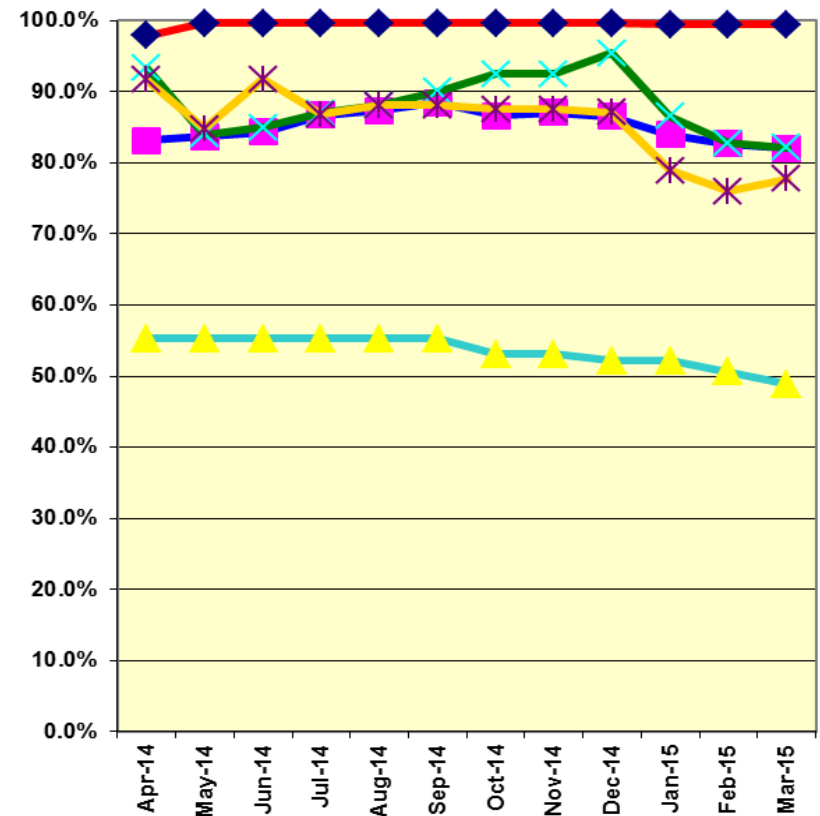
Core Vehicle Training Completed: BLUE RED GREEN GOLD

Percentage of core vehicle training complete: 82.0% 99.5% 82.1% 77.7%

Siemens P2000 training complete: 48.9% N/A N/A N/A

Average Specialist Rail Experience Level in Years: 11.6 11.5 8.7 9.9

Core Training Completed



Variations caused by new hires, employee transfers, & training completed