



Rail Fleet Services Monthly Report September 2015



Metro

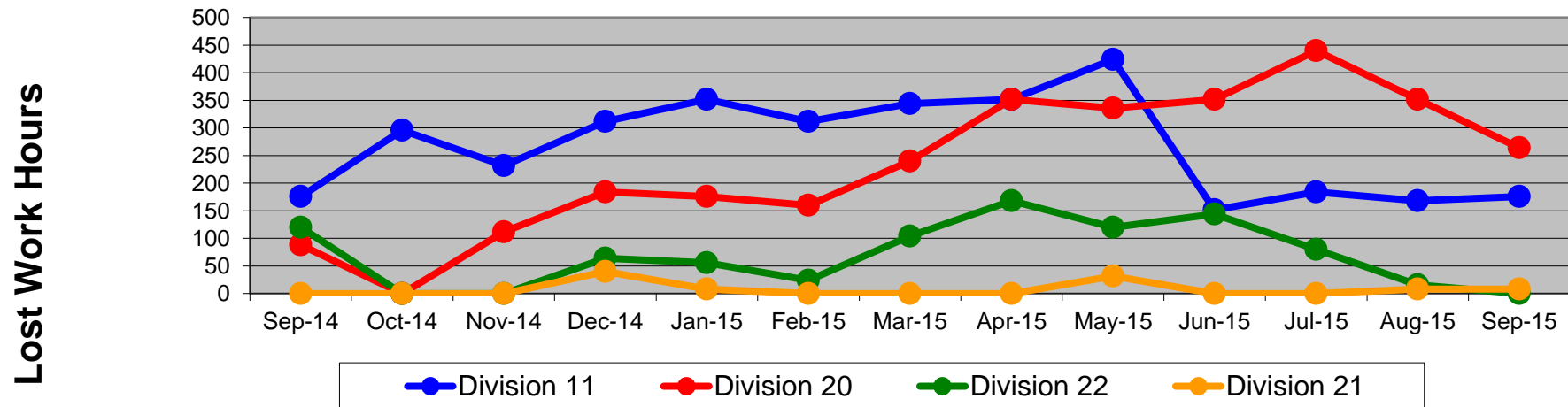
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Industrial Injuries – Lost Work Hours September 2014-2015

	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	13-Month Period
Division 11	176	296	232	312	352	312	344	352	424	152	184	168	176	3,480
Division 20	88	0	112	184	176	160	240	352	336	352	440	352	264	3,056
Division 22	120	0	0	64	56	24	104	168	120	144	80	16	0	896
Division 21	0	0	0	40	8	0	0	0	32	0	0	8	8	96
Totals	384	296	344	600	592	496	688	872	912	648	704	544	448	7,528

Industrial Injuries (lost work hours)



Rail Vehicle Accidents & Major Incidents

September 2014-2015

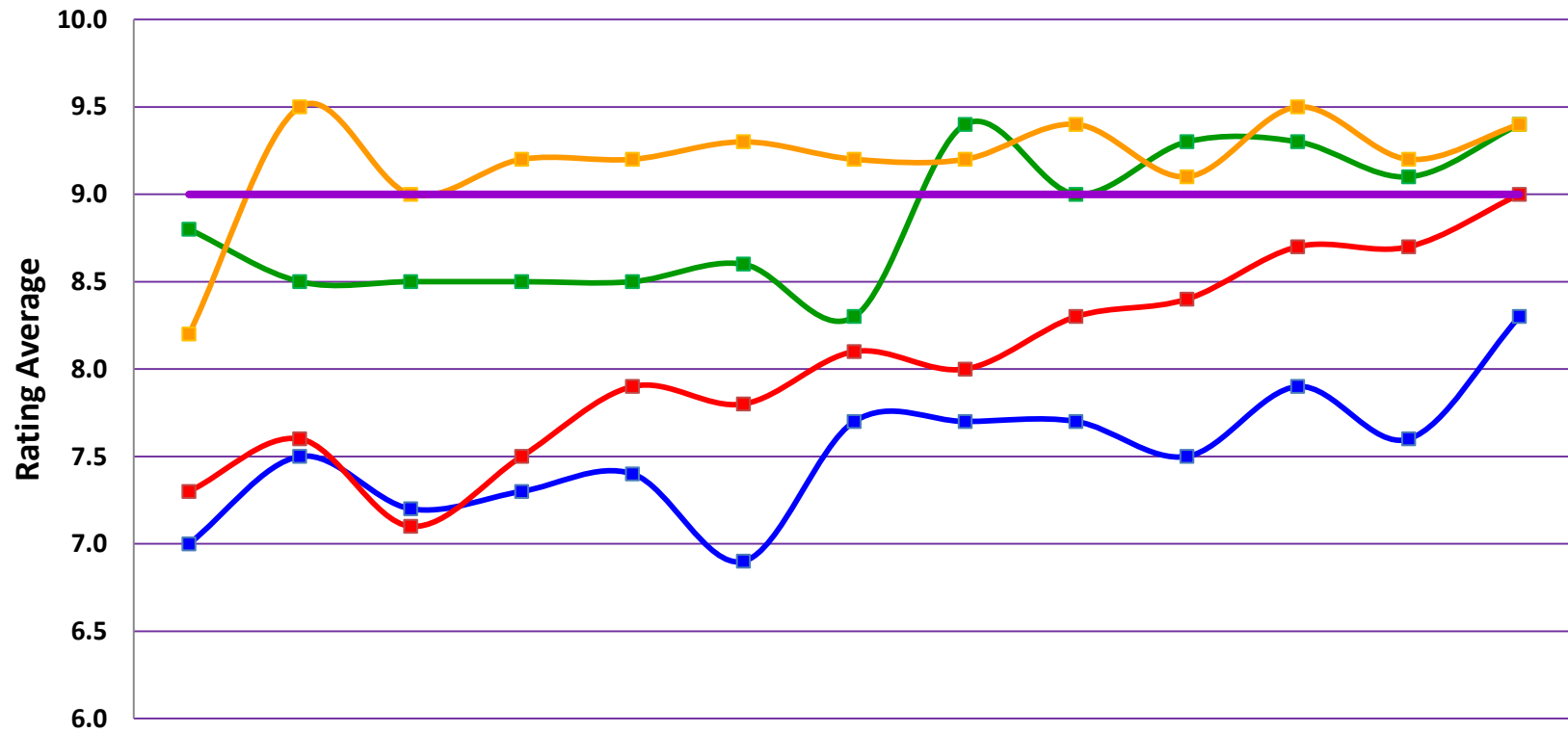
Repair Costs	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	13-Month Period
Blue/Expo Line	\$42,690	\$12,945	\$5,762	\$3,463	\$9,301	\$17,834	\$17,322	\$12,056	\$1,655	\$4,811	\$5,716	\$1,971	\$2,838	\$138,364
Red/Purple Line	\$0	\$4,194	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,194
Green Line	\$0	\$267	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,333	\$0	\$5,600
Gold Line	\$0	\$0	\$0	\$5,664	\$0	\$315	\$0	\$0	\$4,833	\$1,494	\$8,204	\$2,611	\$0	\$23,121
Totals	\$42,690	\$17,406	\$5,762	\$9,127	\$9,301	\$18,149	\$17,322	\$12,056	\$6,488	\$6,305	\$13,920	\$9,915	\$2,838	\$171,279

Rail Vehicle Accident Costs - September 2015				
Date	Incident #	Problem Code	Incident Description	Repair Cost
Metro Blue/Expo Line				
9/4/15	2636104	Train vs. Other	A patron claimed that he was struck by trains mirror.	\$ -
9/6/15	2636418	Train vs. Vehicle	A 10-73 was reported. Train 161, at 28th Street and Flower grade crossing, Track 3, Northbound.	\$ 1,294
9/14/15	2639677	Train vs. Pedestrian	A 10-72 was reported. Train 119, at Myrrh grade crossing, Track 1, Northbound.	\$ 1,217
9/28/15	2644956	Train vs. Pedestrian	A 10-72 was reported. Train 110, at Artesia grade crossing, Track 2, Southbound.	\$ 327
Total				\$ 2,838
Metro Gold Line				
9/16/15	2640263	Derailment	The Sperry Hi Rail Vehicle derailed about ten feet north of Alameda Interlocking, Track 2.	\$ -
Total				\$ -
Grand Total				\$ 2,838
(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.

Rail Vehicle – Car Cleanliness September 2014-2015

Car Cleanliness Monthly Report



	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15
Div 11 Blue/Expo	7.0	7.5	7.2	7.3	7.4	6.9	7.7	7.7	7.7	7.5	7.9	7.6	8.3
Div 20 Red/Purple	7.3	7.6	7.1	7.5	7.9	7.8	8.1	8.0	8.3	8.4	8.7	8.7	9.0
Div 22 Green	8.8	8.5	8.5	8.5	8.5	8.6	8.3	9.4	9.0	9.3	9.3	9.1	9.4
Div 21 Gold	8.2	9.5	9.0	9.2	9.2	9.3	9.2	9.2	9.4	9.1	9.5	9.2	9.4
Rail Goal	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0

Service Delivery September 2015

September 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	76	97%
Weekend:	60	59	98%
Late Pullouts: 1			
Monthly Mileage:	605,367		

Red/Purple Line Fleet Size: 104

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available*</u>	<u>% Up (Down)</u>
Weekday:	74	80	108%
Weekend:	54	72	133%
Late Pullouts: 0			
Monthly Mileage:	611,096		

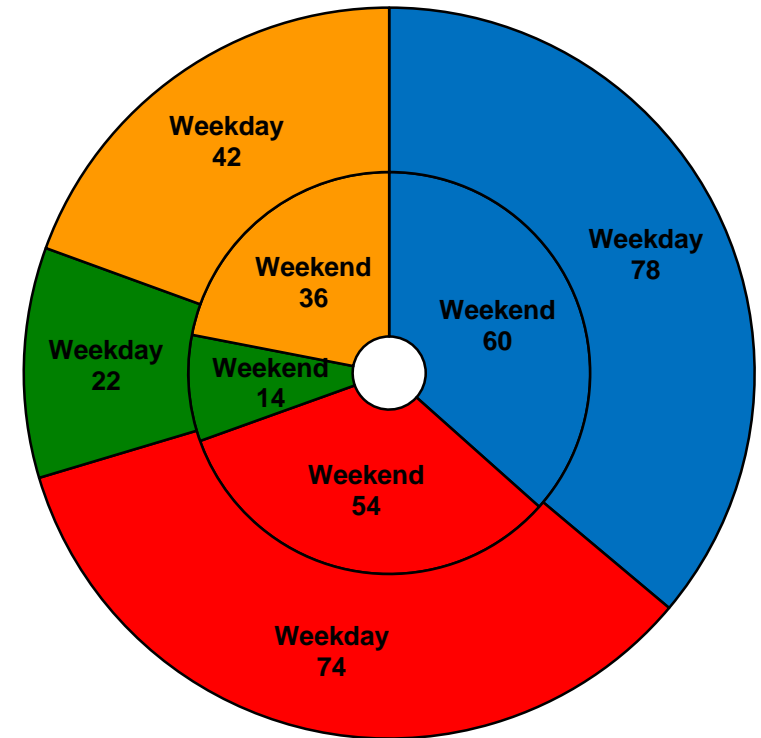
Green Line Fleet Size: 29

<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:	224,186		

Gold Line Fleet Size: 50

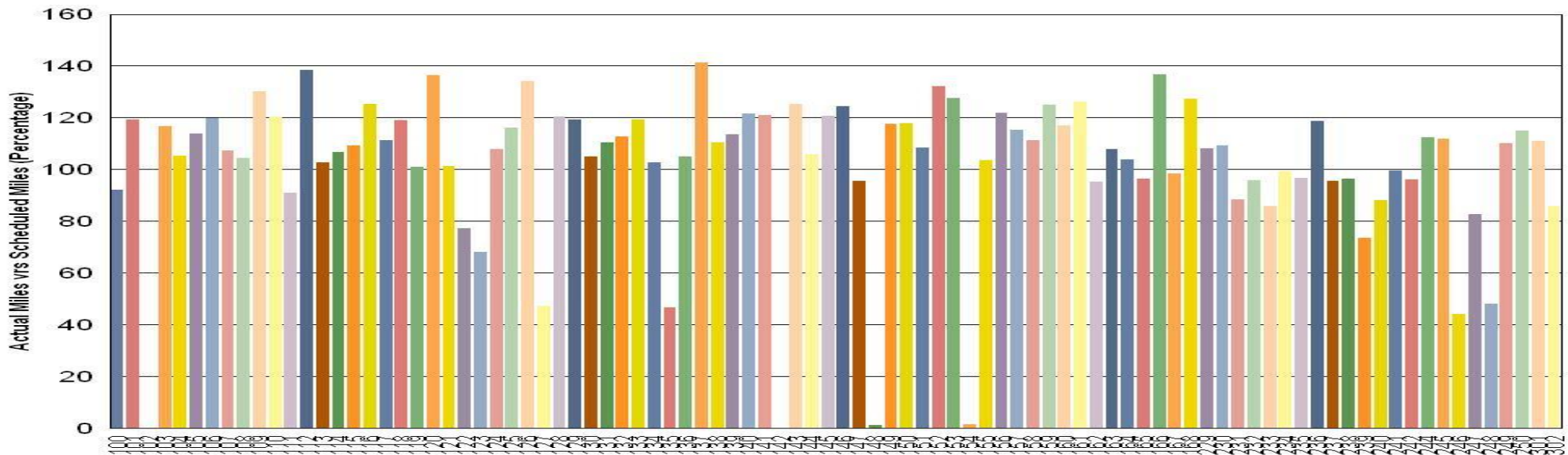
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available*</u>	<u>% Up (Down)</u>
Weekday:	42	42	100%
Weekend:	36	37	103%
Late Pullouts: 0			
Monthly Mileage:	312,725		

* Average available numbers are based on 22-day-data.



Vehicle Utilization September 2015

Metro Blue/Expo Line (92 Cars)



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

Car # 102 Overhaul and Running Repair of Several Major Systems

Car # 142 Long Term Accident Repair

Car # 148 Interior Graffiti Abatement and Exterior Paint/Body Work

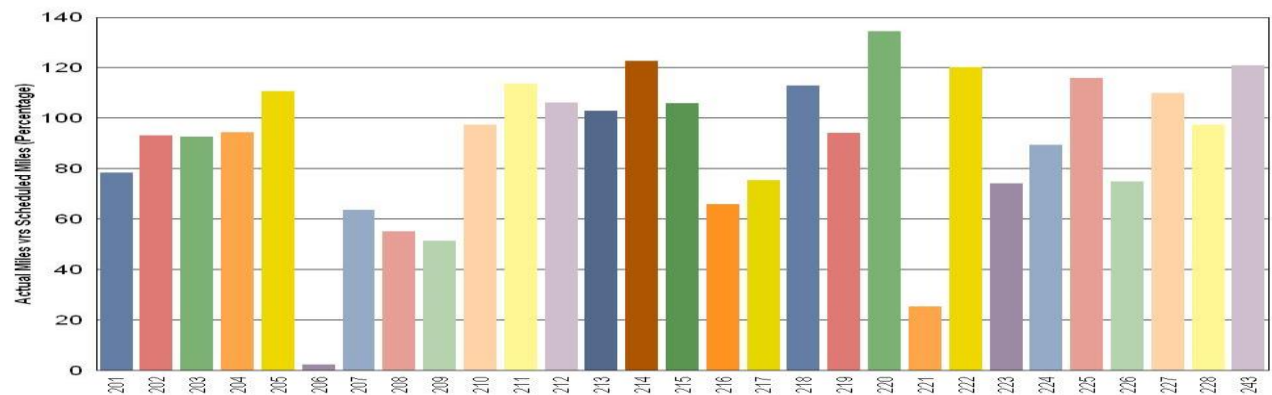
Car # 154 Overhaul Projects and Major Inspections

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

Car # 206 EMI Faults (engineering currently testing)

Car # 221 Propulsion Fault

Metro Green Line (29 Cars)



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

Vehicle Utilization September 2015

Red/Purple Line:

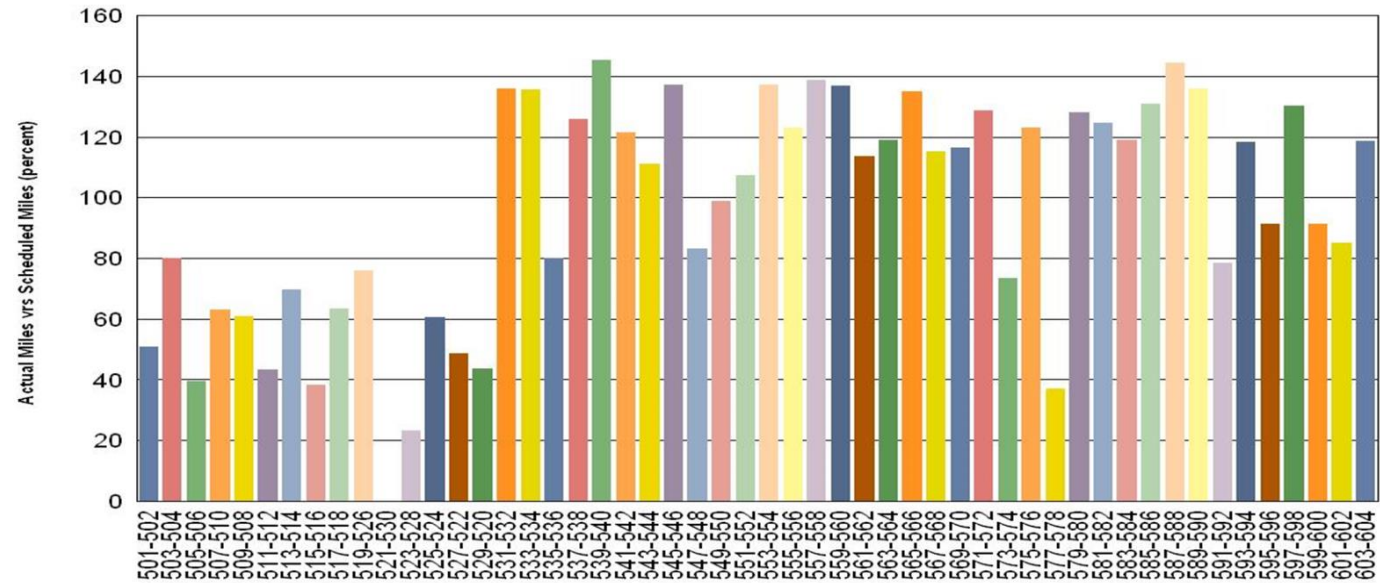
The following cars were out of service due to:

Car # 515-516 Propulsion Fault

Car # 521-530 Trucks/Waiting on Traction Motors

Car # 577-578 Door and HVAC Overhaul

Metro Red/Purple Line (104 Cars)



Gold Line:

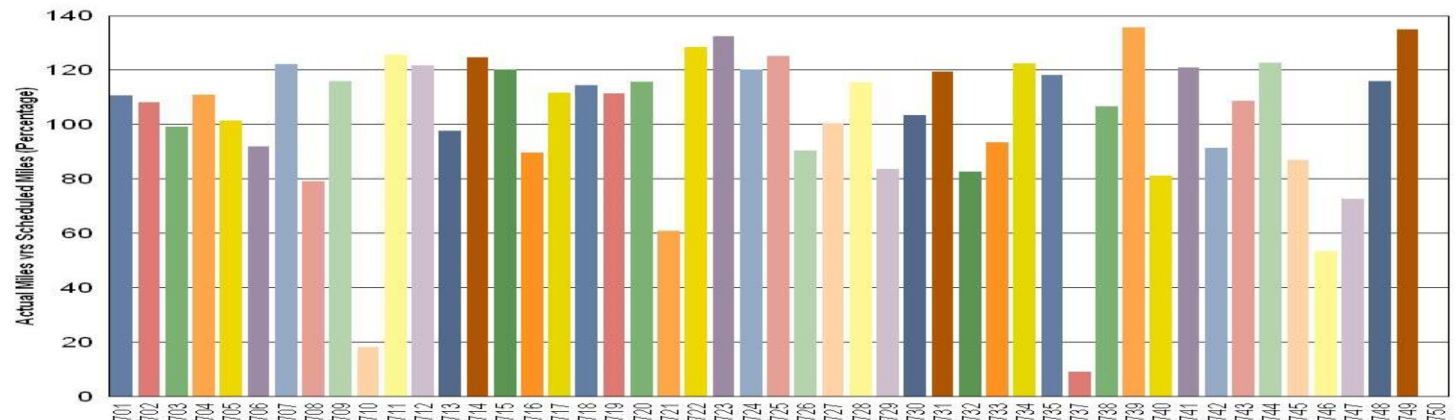
The following cars were out of service due to:

Car # 710 Being used on the Foothill

Car # 737 Being used on the Foothill extension for testing

Car # 750 Auxiliary Inverter flash over

Metro Gold Line (50 Cars)

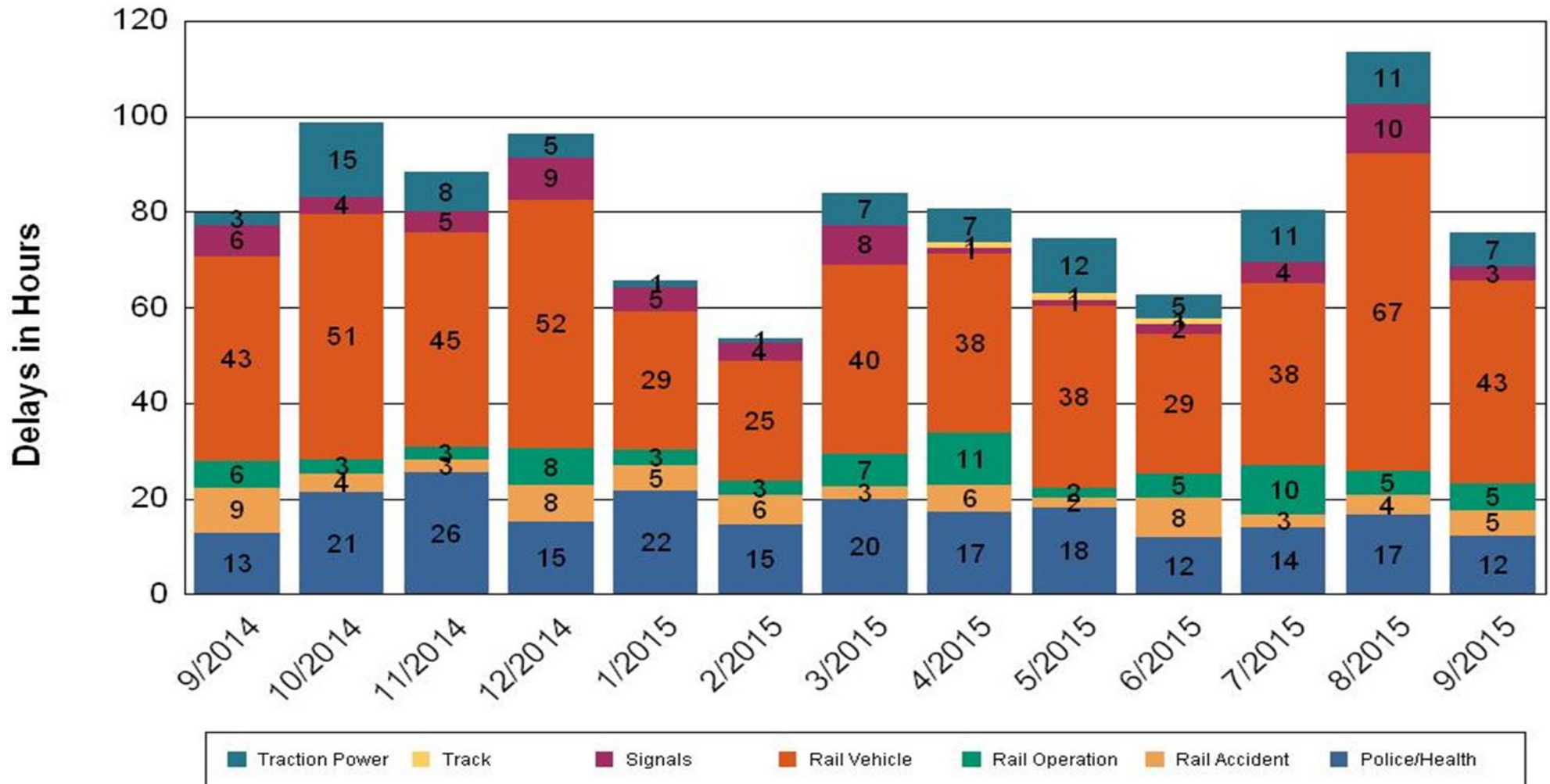


•Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.

All Train Delays (Hours) September 2014-2015

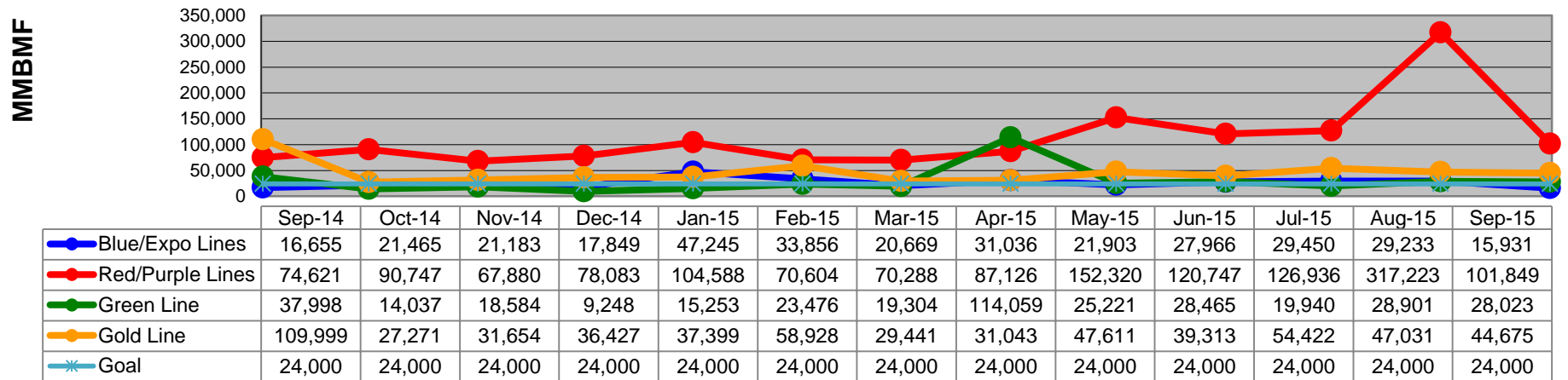
All Train Delays

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

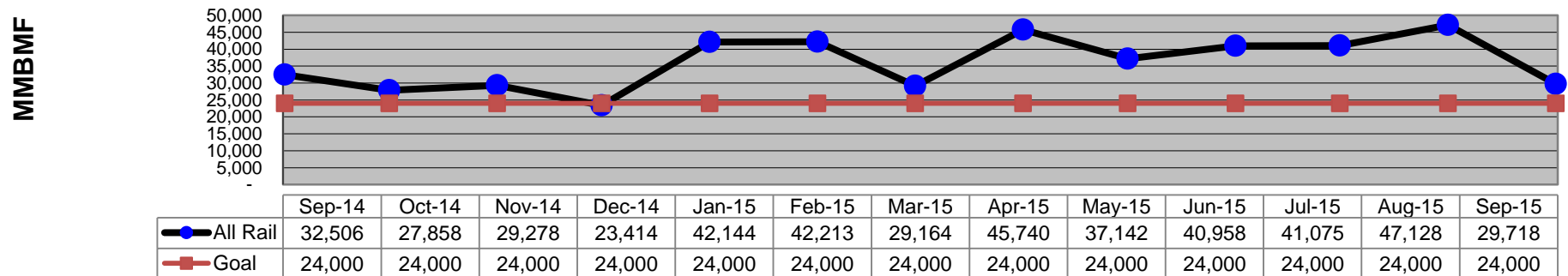


Mean Miles Between Failures (Major) September 2014-2015

Mean Miles Between Major Failures (by line)



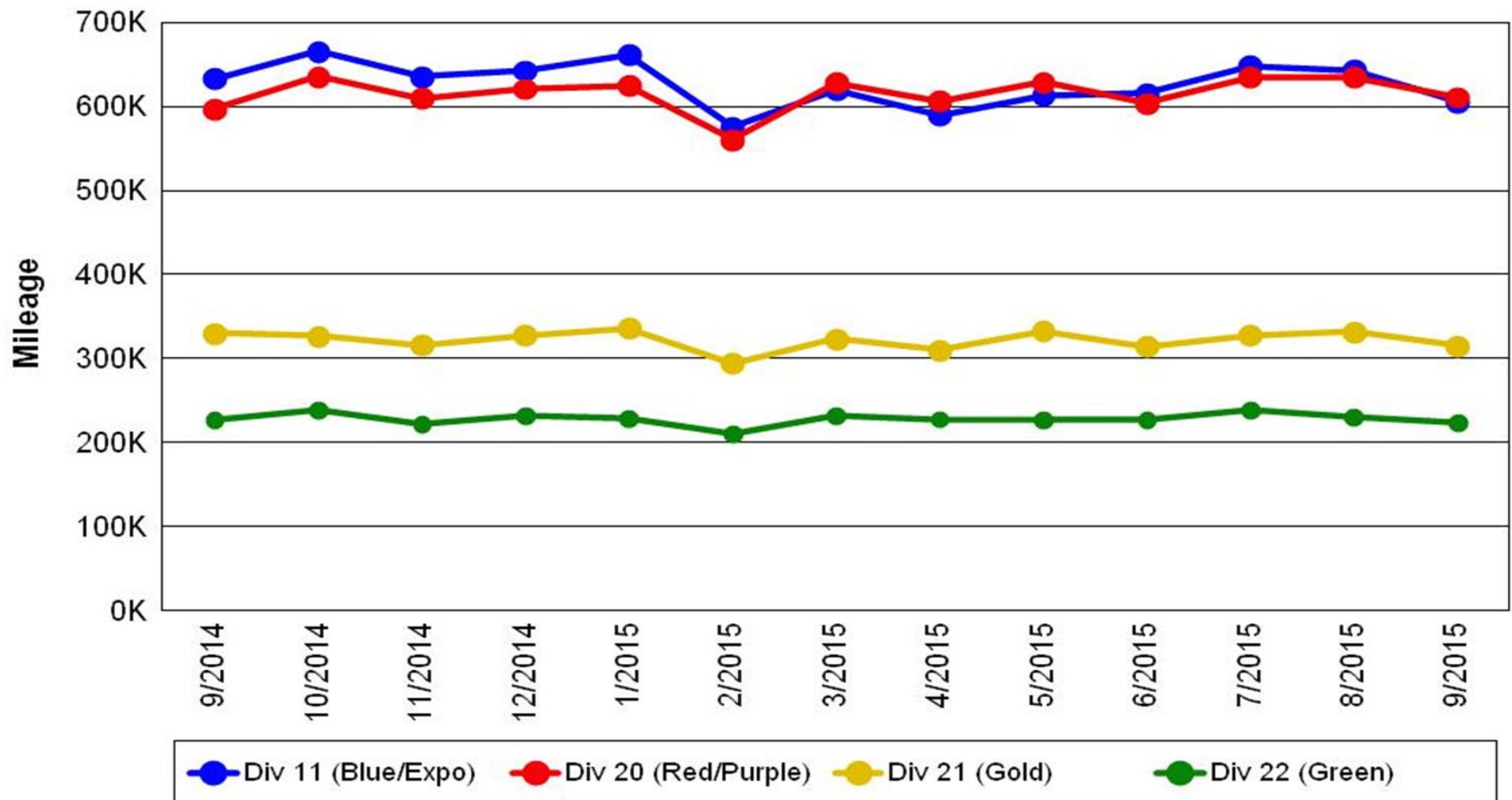
Mean Miles Between Major Failures (all)



Mileage Between Data Range (by month)

September 2014-2015

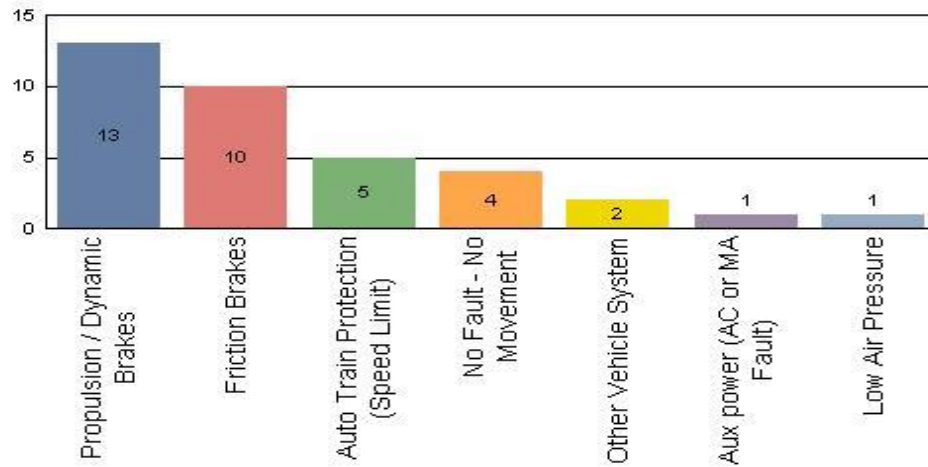
Rail Division Monthly Mileage



Top Incident Categories September 2015

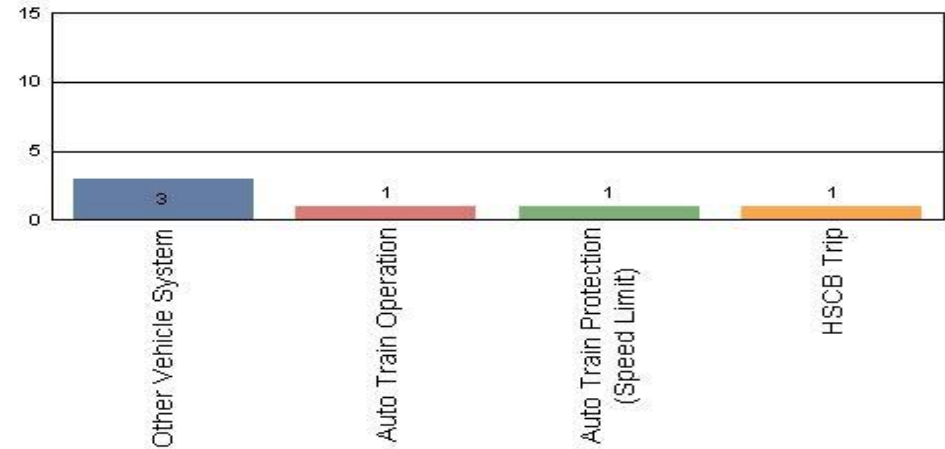
Metro Blue/Expo Line

Top Incident Categories



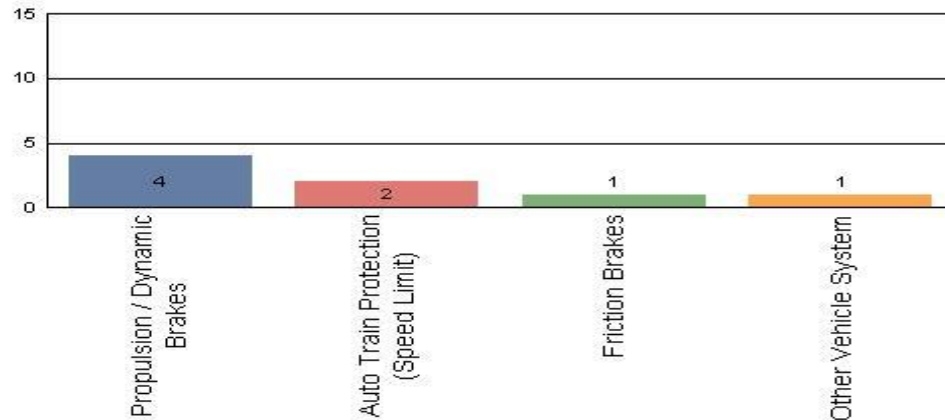
Metro Red/Purple Line

Top Incident Categories



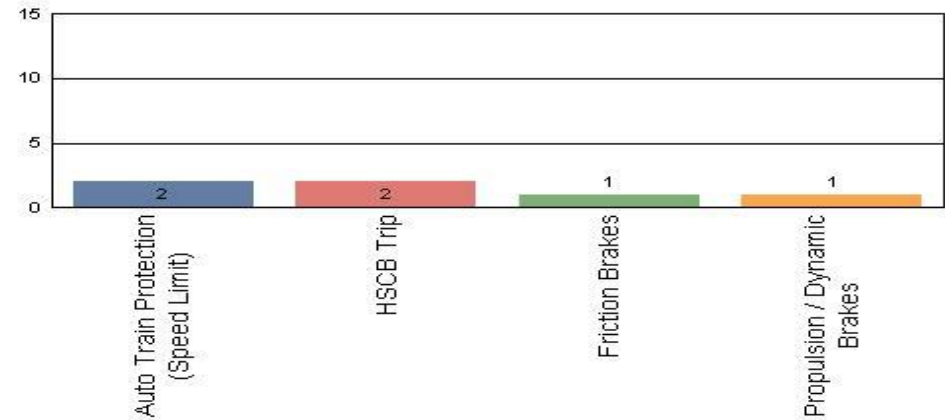
Metro Green Line

Top Incident Categories



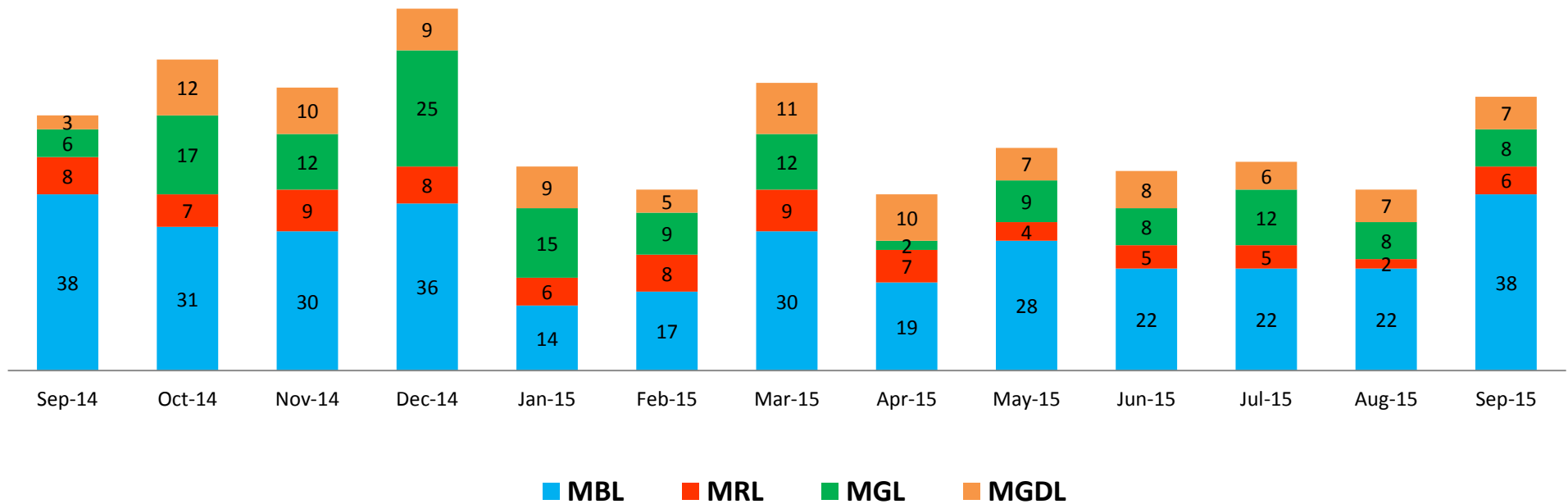
Metro Gold Line

Top Incident Categories



Major Incidents September 2014-2015

Numbers of Major System Failures (by Line)

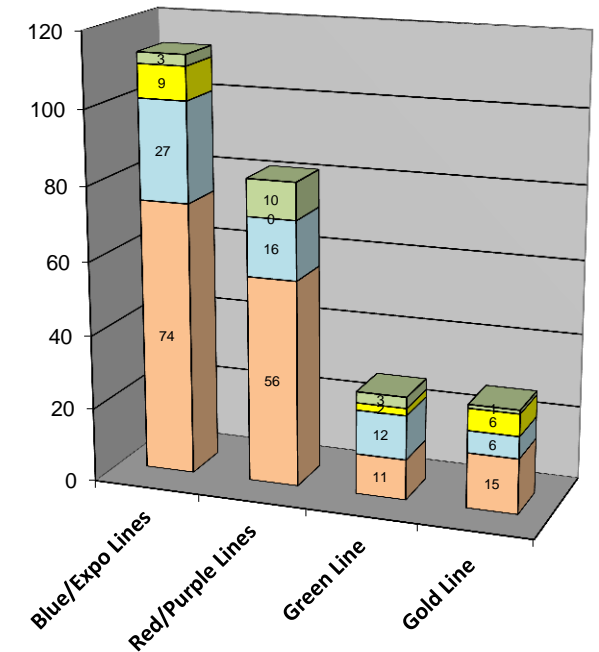


Preventive Maintenance Compliance September 2014-2015

PM Compliance	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-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%	97%	100%	100%	100%	100%	100%
Green Line	100%	100%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	96%	100%	100%	100%

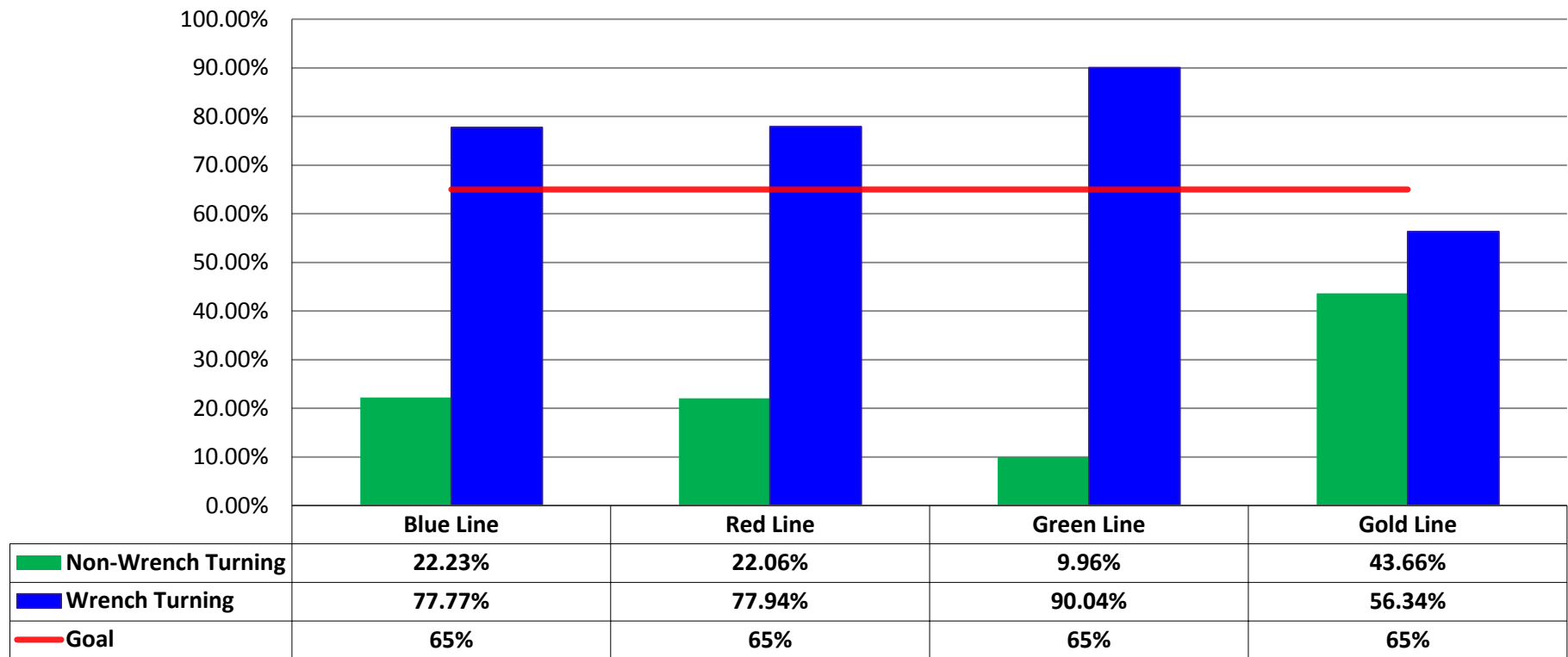
Number of Preventive Maintenance Inspections - September 2015					
Line	A level	B level	C level	D level	Totals
Blue/Expo Lines	74	27	9	3	113
Red/Purple Lines	56	16	0	10	82
Green Line	11	12	2	3	28
Gold Line	15	6	6	1	28
Totals:	156	61	17	17	251

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 Leader Wrench Turning September 2015

RFS – Leader Wrench Turning September 2015



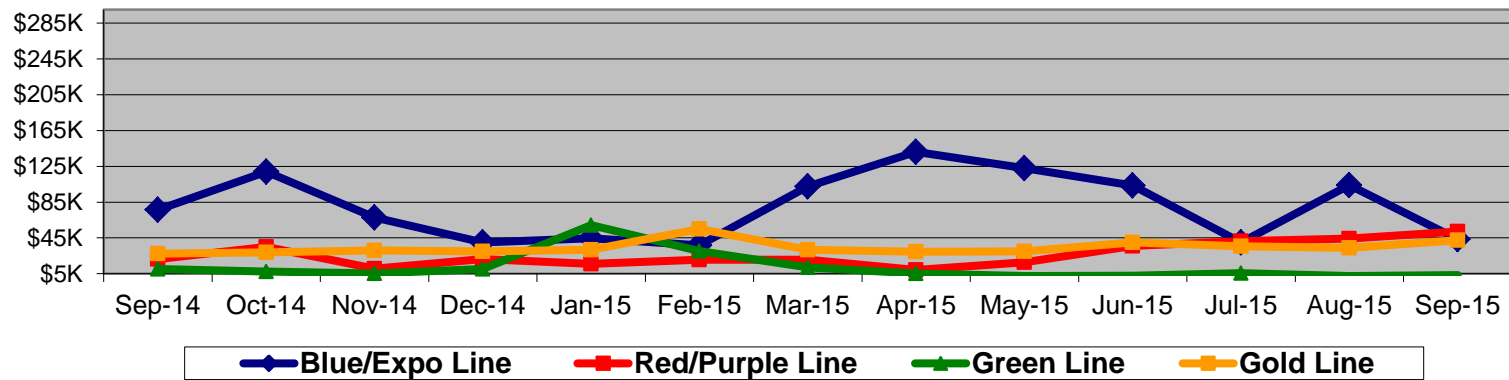
Notes: Labor hours contributed by Maint Specialist Leader, Rail Body/Paint Repair Leader, and Maint Specialist Temporary Leader

Vandalism & Graffiti Report

September 2014-2015

Graffiti Costs

	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	13-Month Period
Blue/Expo Line	\$77K	\$119K	\$68K	\$40K	\$45K	\$37K	\$103K	\$141K	\$123K	\$104K	\$40K	\$104K	\$43K	\$1042K
Red/Purple Line	\$22K	\$35K	\$11K	\$21K	\$16K	\$21K	\$21K	\$9K	\$18K	\$36K	\$41K	\$44K	\$52K	\$347K
Green Line	\$10K	\$8K	\$5K	\$10K	\$59K	\$30K	\$12K	\$5K	\$3K	\$3K	\$6K	\$2K	\$4K	\$158K
Gold Line	\$28K	\$29K	\$31K	\$30K	\$32K	\$55K	\$32K	\$30K	\$30K	\$40K	\$36K	\$34K	\$42K	\$448K
Totals:	\$136K	\$190K	\$115K	\$102K	\$152K	\$143K	\$167K	\$185K	\$173K	\$183K	\$123K	\$185K	\$142K	\$1,995K



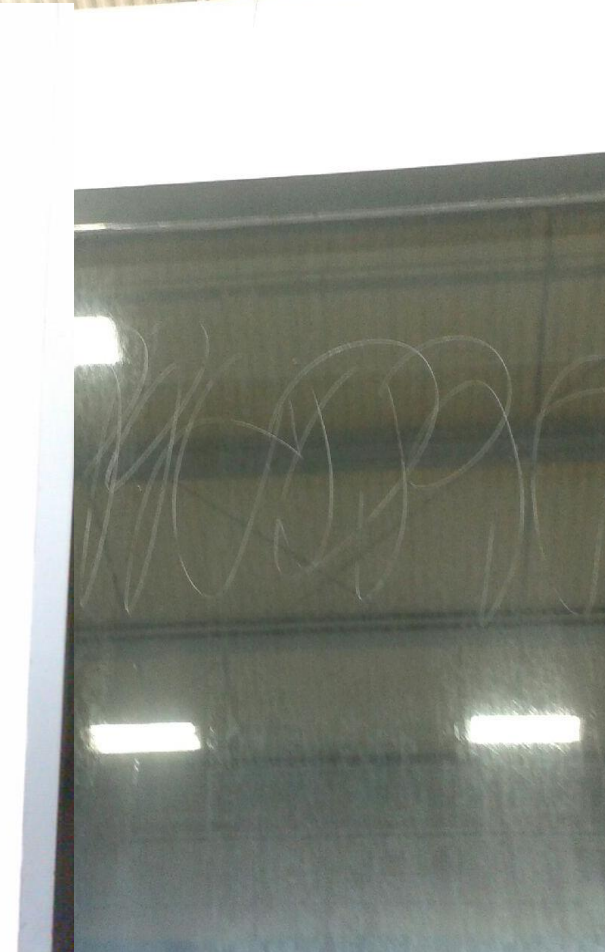
September 2015 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows Replaced	101	\$ 10,290	\$ 20,369	\$ 30,659
Vandal Shields Replaced	588	\$ 13,142	\$ 11,345	\$ 24,487
Seats Cleaned	512	\$ 6,228	\$ -	\$ 6,228
Seats Inserts Replaced	690	\$ 23,561	\$ 21,567	\$ 45,128
Graffiti Removal - Other	780	\$ 10,344	\$ 16,888	\$ 27,232
Repainting Panels	251	\$ 7,907	\$ -	\$ 7,907
Totals	2,922	\$ 71,472	\$ 70,169	\$ 141,641

Graffiti Pictures September 2015

Blue Line



Green Line

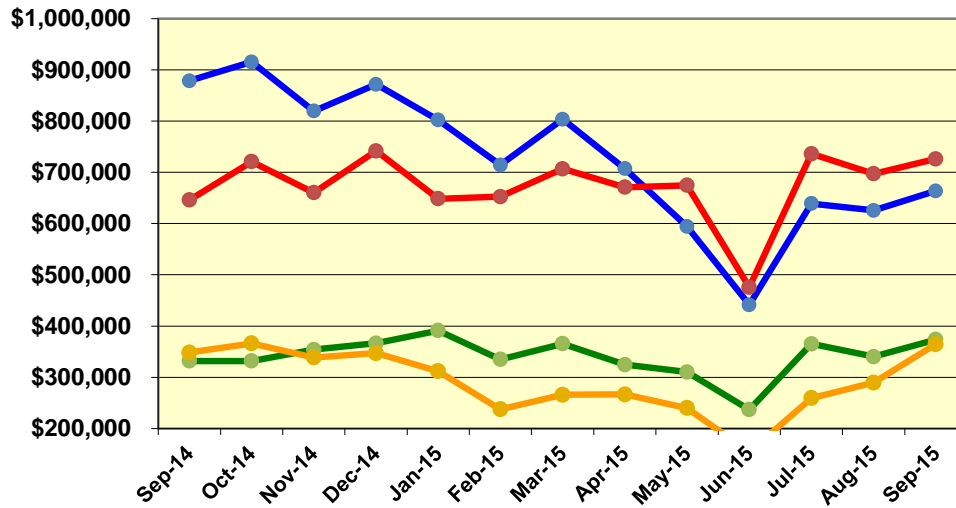


Gold Line

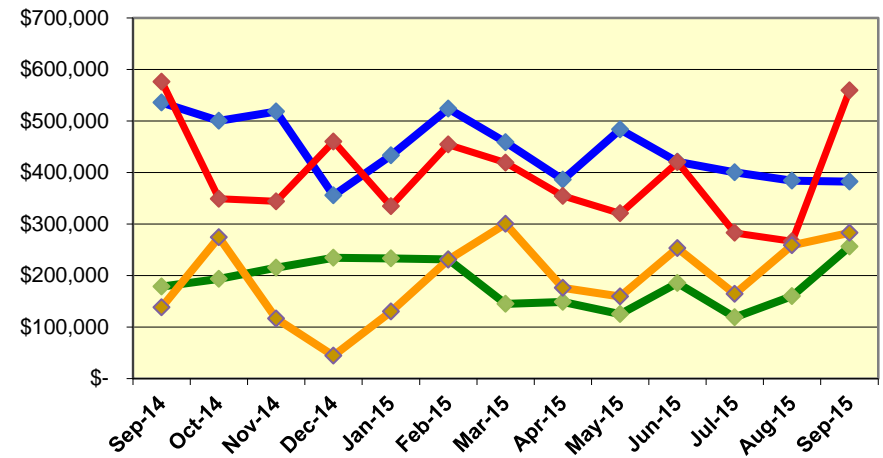


Labor and Material Costs September 2014-2015

Labor Costs



Material Costs



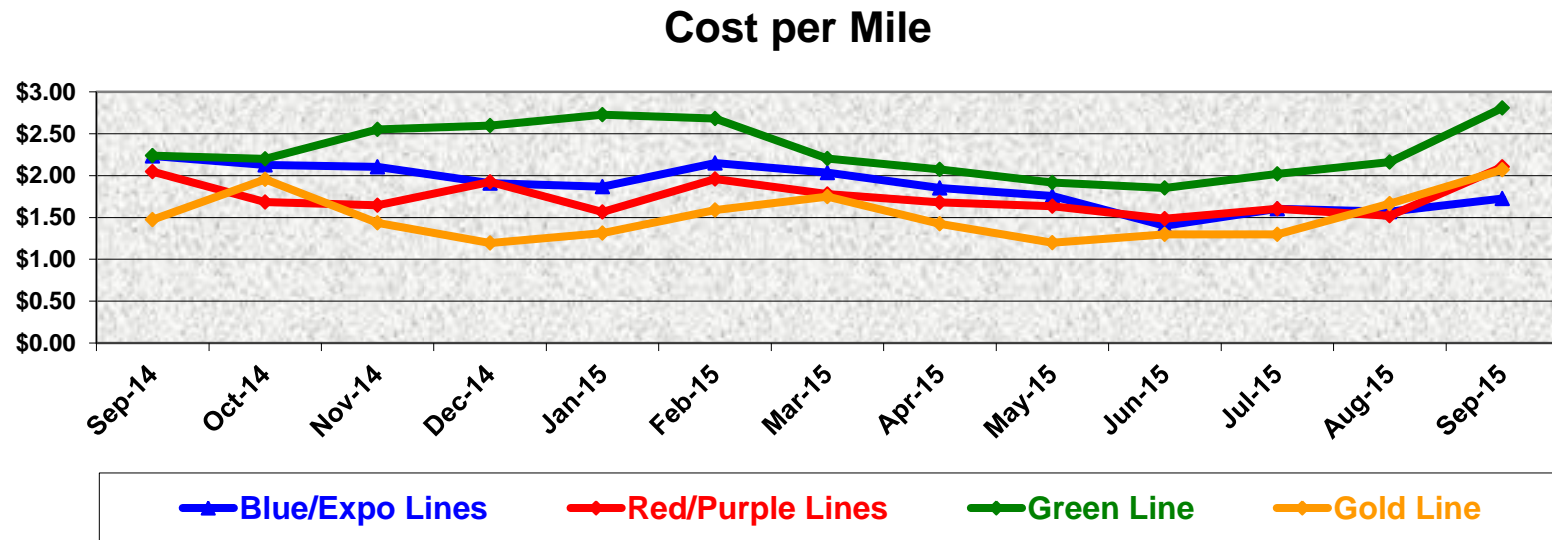
	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15*	Jul-15	Aug-15	Sep-15
Labor Costs													
Blue/Expo Lines	\$ 878,598	\$ 915,432	\$ 819,497	\$ 871,682	\$ 802,256	\$ 714,349	\$ 803,757	\$ 707,348	\$ 594,550	\$ 441,364	\$ 638,967	\$ 625,577	\$ 663,752
Red/Purple Lines	\$ 645,981	\$ 721,060	\$ 660,321	\$ 741,908	\$ 648,538	\$ 652,406	\$ 706,794	\$ 671,084	\$ 674,681	\$ 475,810	\$ 736,269	\$ 697,095	\$ 726,107
Green Line	\$ 331,870	\$ 331,661	\$ 354,058	\$ 366,422	\$ 391,161	\$ 334,919	\$ 365,457	\$ 324,550	\$ 310,181	\$ 236,931	\$ 365,229	\$ 340,115	\$ 373,698
Gold Line	\$ 348,288	\$ 366,248	\$ 338,610	\$ 347,182	\$ 311,868	\$ 237,438	\$ 265,835	\$ 266,529	\$ 240,056	\$ 154,498	\$ 259,228	\$ 289,571	\$ 364,544
Totals	\$ 2,204,736	\$ 2,334,400	\$ 2,172,486	\$ 2,327,193	\$ 2,153,823	\$ 1,939,112	\$ 2,141,842	\$ 1,969,511	\$ 1,819,467	\$ 1,308,603	\$ 1,999,693	\$ 1,952,358	\$ 2,128,101

	Material Costs												
Blue/Expo Lines	\$ 536,100	\$ 500,390	\$ 518,334	\$ 355,729	\$ 433,347	\$ 524,157	\$ 458,588	\$ 385,794	\$ 483,368	\$ 421,088	\$ 400,315	\$ 384,178	\$ 382,274
Red/Purple Lines	\$ 576,230	\$ 349,031	\$ 343,936	\$ 460,076	\$ 334,623	\$ 454,326	\$ 419,099	\$ 354,492	\$ 320,754	\$ 420,042	\$ 282,744	\$ 266,405	\$ 559,179
Green Line	\$ 178,206	\$ 193,176	\$ 214,902	\$ 234,118	\$ 233,318	\$ 231,562	\$ 144,927	\$ 148,839	\$ 125,054	\$ 185,086	\$ 118,559	\$ 159,916	\$ 256,185
Gold Line	\$ 137,883	\$ 274,059	\$ 116,179	\$ 44,498	\$ 130,036	\$ 230,896	\$ 300,170	\$ 175,922	\$ 159,016	\$ 253,284	\$ 163,954	\$ 258,793	\$ 282,958
Totals	\$ 1,428,418	\$ 1,316,657	\$ 1,193,351	\$ 1,094,420	\$ 1,131,324	\$ 1,440,941	\$ 1,322,783	\$ 1,065,048	\$ 1,088,194	\$ 1,279,500	\$ 965,571	\$ 1,069,291	\$ 1,480,596

Note: *Preliminary labor and material costs for June 2015 due to FY15 fiscal year ending awaiting accrual process.

Cost Per Mile September 2014-2015

Cost per mile:	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Average
Blue/Expo Lines	\$2.24	\$2.13	\$2.11	\$1.91	\$1.87	\$2.15	\$2.04	\$1.85	\$1.76	\$1.40	\$1.60	\$1.57	\$1.73	\$1.87
Red/Purple Lines	\$2.05	\$1.68	\$1.64	\$1.92	\$1.57	\$1.96	\$1.78	\$1.68	\$1.63	\$1.48	\$1.61	\$1.52	\$2.10	\$1.74
Green Line	\$2.24	\$2.20	\$2.55	\$2.60	\$2.73	\$2.68	\$2.20	\$2.08	\$1.92	\$1.85	\$2.02	\$2.16	\$2.81	\$2.31
Gold Line	\$1.47	\$1.96	\$1.44	\$1.19	\$1.31	\$1.59	\$1.75	\$1.43	\$1.20	\$1.30	\$1.30	\$1.67	\$2.07	\$1.51



ATU Absences vs. Overtime

September 2015

ABSENCE TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	Total
BER-BEREAVEMENT	48	72	24	8	152
CTO-COMPENSATORY TIME OFF	252	178	96	84	610
CUT-EMPLOYEE LEAVES EARLY	1	-	-	-	1
DSL-DISABILITY LEAVE/LONG	760	600	-	192	1,552
EFH-EMG. FLOAT HOL.	16	64	32	104	216
ETO-EXCUSED TIME OFF	115	26	3	26	169
FMI-FAM IND INJURY	-	168	-	-	168
FML-FAMILY CARE LEAVE	648	393	113	288	1,442
FMS-FAMILY LEAVE SICK	90	48	32	16	186
HLF-HOLIDAY FLOATING	456	328	64	192	1,040
HNP-HOLIDAY NOT PAID	16	8	-	-	24
HOL-HOLIDAY LEGAL	712	512	104	256	1,584
II-INDUSTRIAL INJURY	-	-	-	8	8
JUR-JURY DUTY	16	24	-	-	40
LC1-LABOR CODE 233	103	115	56	112	386
LTI-OCCPIL/LONGTRM INJ LEAVE	176	264	-	-	440
MLN-MILITARY ABSENCE-UNPAID	-	120	-	-	120
OWP-OFF WITH PERMISSION	-	8	-	-	8
RTO-REQUESTED TIME OFF-NO PAY	32	-	3	-	35
SCK-SICK PAY	192	96	108	56	452
SCW-SICK WITHOUT PAY	57	16	39	-	112
TAR-TARDY	3	1	2	0	6
UB-UNION BUSINESS	-	-	4	4	8
UNP-UNION BUS PAID	16	8	-	-	24
VAC-VACATION	1,303	1,224	560	848	3,935
VAS-VACATION WHILE SICK	-	7	-	-	7
Total Absence Hours	5,013	4,280	1,240	2,194	12,726
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	23%	24%	16%	26%	23%

OVERTIME TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	Total
CTB-COMPENSATORY TIME TO BANK	312	254	40	174	781
OTP-PREM OVERTIME	3,543	4,857	1,329	597	10,326
WLO-Worked Lunch Overtime	129	139	82	37	386
Total Overtime Hours	3,984	5,250	1,451	808	11,492
Overtime as a % of Work Force	18%	29%	18%	10%	21%

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



RFS Instruction Department Activities

September 2015

Training classes completed during the month of September 2015

Description	Course Hours	Student Count	Training Hours
Blue & Expo Line Training - (P865/2020 & P2000 LRV):			
RFS SIEMENS 2000 VEHICLE SYSTEMS	48	6	288
RFS SIEMENS 2000 CARBODY	24	9	216
RFS SIEMENS 2000 TRUCK	32	3	96
RFS SIEMENS 2000 COMMUNICATIONS	24	3	72

Total Blue Line Training (Hours): 672

Red Line Training (Breda A650 HRV):

M3 MAINTENANCE LEADER	8	3	24
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Total Red Line Training (Hours): 24

Gold Line Training (P2550 LRVs):

RFS 2015-FRHT-BRANDT HIGH-RAIL TRUCK	8	1	8
RFS ANSALDOBREDA 2550 VEHICLE SYSTEMS	24	4	96
RFS ANSALDOBREDA 2550 MAINLINE DUTY, DEAD TOW AND VEHICLE RECK	24	3	72

Total Gold Line Training (Hours): 176

Green Line Training (P2000 LRVs):

RFS SIEMENS 2000 CARBODY	24	1	24
RFS SIEMENS 2000 TRUCK	32	1	32
RFS SIEMENS 2000 COMMUNICATIONS	24	1	24

Total Green Line Training (Hours): 80

Total RFS Instruction for the month of September 2015 (Hours): 928

Other Instruction Activities

	C	A	TS	Total
A650 Curriculum, Administrative, and Technical Support	160	16	24	200
P865/P2020 Curriculum, Administrative, and Technical Support	40	8	152	200
P2000 Curriculum, Administrative, and Technical Support	160	24	16	200
P2550 Curriculum, Administrative, and Technical Support	40	8	40	88
P3010 Curriculum, Administrative, and Technical Support	200	24	168	392
Instructor Vacation & Holiday				176

Total Other Instruction Activities 1,256

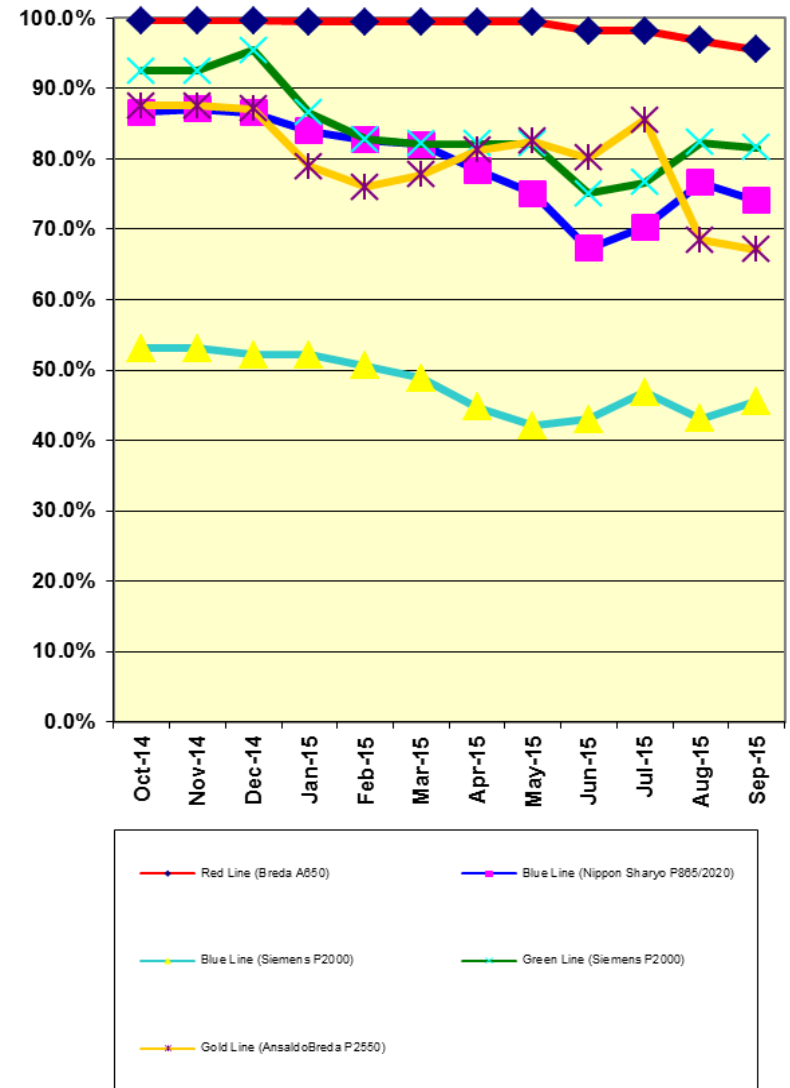
Core Vehicle Training Completed: BLUE RED GREEN GOLD

Percentage of core vehicle training complete: 74.1% 95.5% 81.6% 67.1%

Siemens P2000 training complete: 45.6% N/A N/A N/A

Average Specialist Rail Experience Level in Years: 10.8 11.7 9.4 6.9

Core Training Completed



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



Metro