



Rail Fleet Services Monthly Report January 2016



Metro

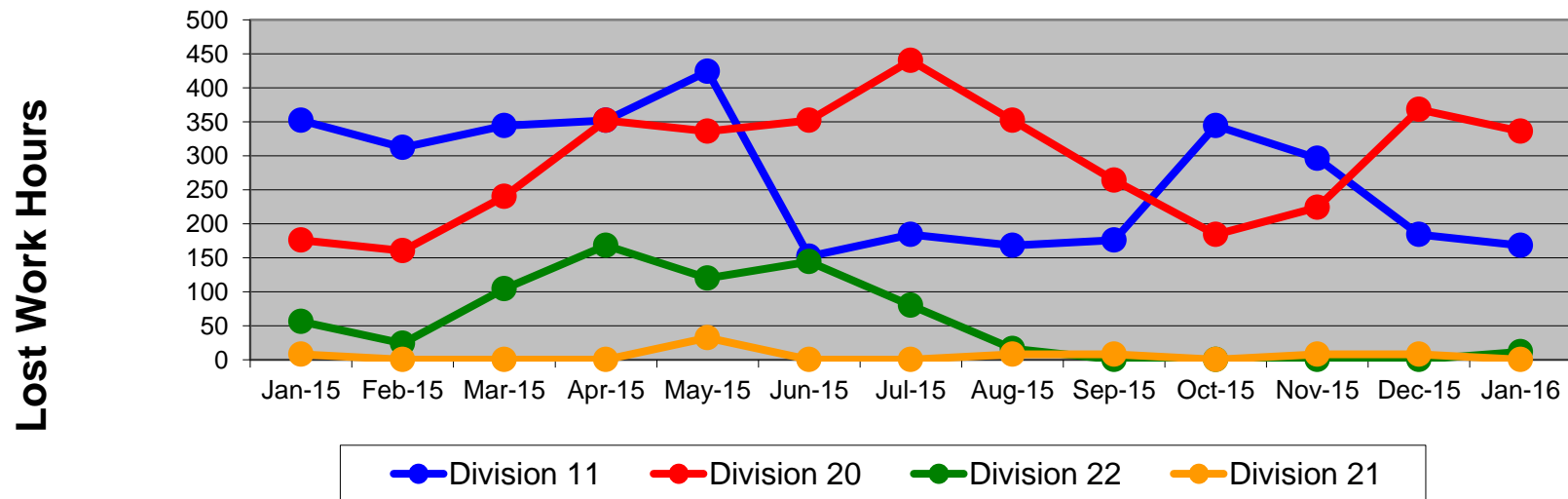
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Industrial Injuries – Lost Work Hours January 2015-2016

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	13-Month Period
Division 11	352	312	344	352	424	152	184	168	176	344	296	184	168	3,456
Division 20	176	160	240	352	336	352	440	352	264	184	224	368	336	3,784
Division 22	56	24	104	168	120	144	80	16	0	0	0	0	12	724
Division 21	8	0	0	0	32	0	0	8	8	0	8	8	0	72
Totals	592	496	688	872	912	648	704	544	448	528	528	560	516	8,036

Industrial Injuries (lost work hours)



Rail Vehicle Accidents & Major Incidents

January 2015-2016

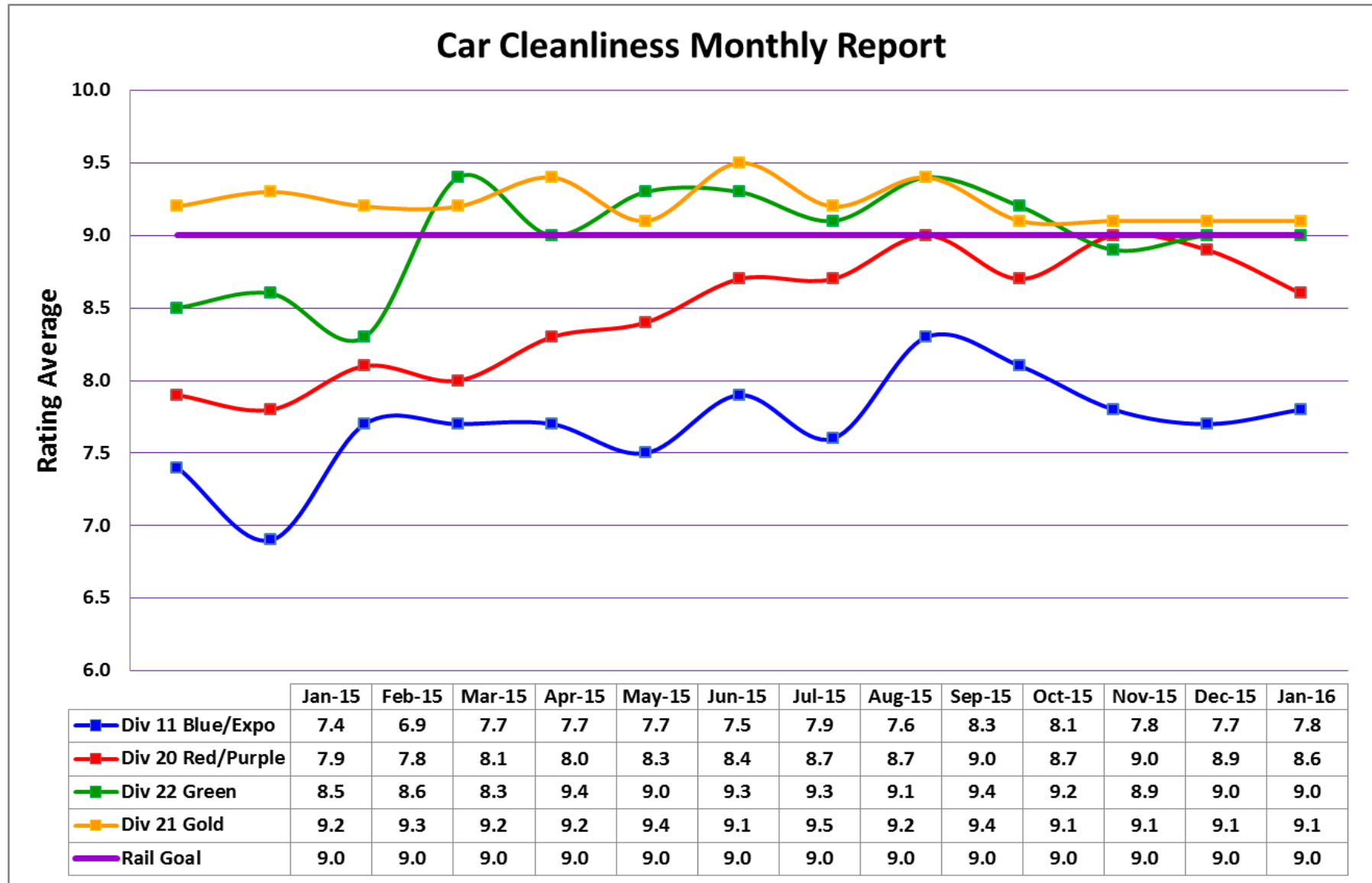
Repair Costs	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	13-Month Period
Blue/Expo Line	\$9,301	\$17,834	\$17,322	\$12,056	\$1,655	\$4,811	\$5,716	\$1,971	\$2,838	\$40,969	\$65,454	\$17,160	\$4,570	\$201,657
Red/Purple Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Green Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,333	\$0	\$1,205	\$0	\$23	\$0	\$6,561
Gold Line	\$0	\$315	\$0	\$0	\$4,833	\$1,494	\$8,204	\$2,611	\$0	\$1,074	\$1,547	\$1,547	\$0	\$21,625
Totals	\$9,301	\$18,149	\$17,322	\$12,056	\$6,488	\$6,305	\$13,920	\$9,915	\$2,838	\$43,248	\$67,001	\$18,730	\$4,570	\$229,843

Rail Vehicle Accident Costs - January 2016				
Date	Incident #	Problem Code	Incident Description	Repair Cost
Metro Blue/Expo Line				
1/5/16	2681226	Train vs. Vehicle	A 10-73 was reported at Burnett, NB Track 1.	\$ 3,673
1/14/16	2684476	Train vs. Vehicle	A 10-73 was reported, at Los Angeles and Washington, SB Track 2.	\$ 506
1/19/16	2686217	Train vs. Pedestrian	A 10-72 was reported, at 103rd Grade Crossing.	\$ 391
			MBL & EXPO Total	\$ 4,570
Metro Gold Line				
1/1/16	2679817	Train vs. Vehicle	A 10-73 was reported, alleged door incident, Fillmore Station, NB.	\$ -
			MGOLD Total	\$ -
			Grand Total	\$ 4,570
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

January 2015-2016



Service Delivery January 2016

Blue/Expo Line Fleet Size: 92

<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	78	75	96%
Weekend:	48	56	117%
Late Pullouts: 1			
Monthly Mileage:	587,332		

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	70	130%
Late Pullouts: 0			
Monthly Mileage:	621,588		

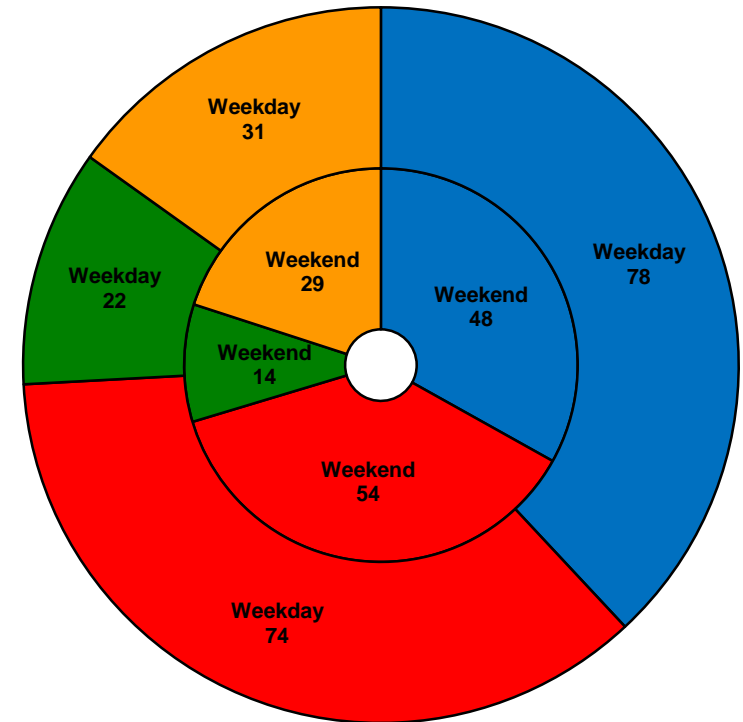
Green Line Fleet Size: 29

<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:	235,356		

Gold Line Fleet Size: 50

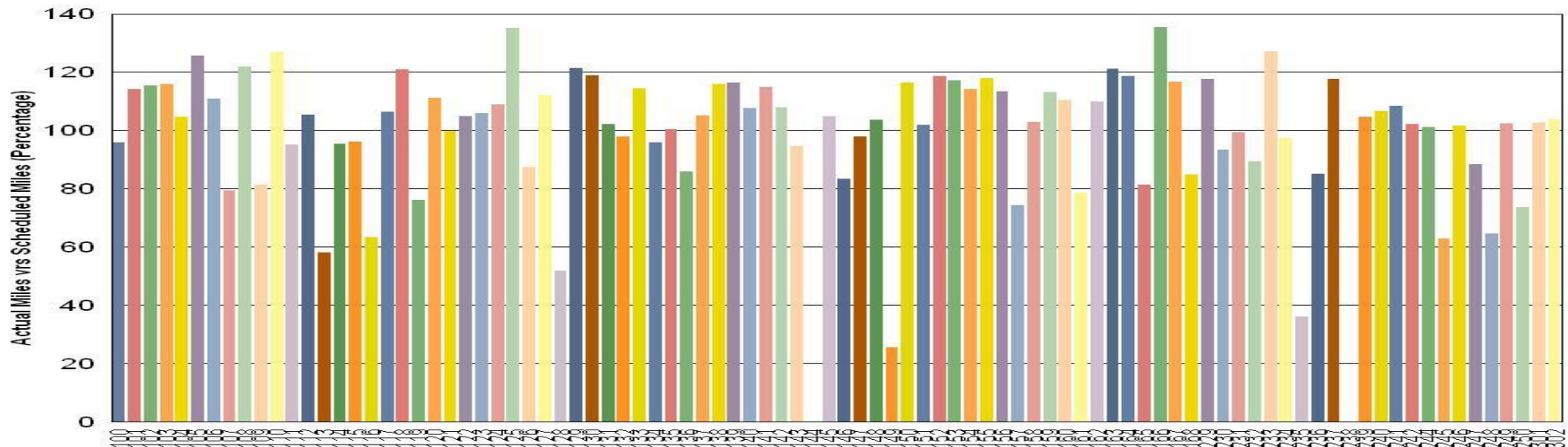
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	31	39	126%
Weekend:	29	37	128%
Late Pullouts: 0			
Monthly Mileage*:	288,481		

* Gold Line monthly mileage includes Division 21 and 24.



Vehicle Utilization January 2016

Metro Blue/Expo Line (92 Cars)



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

Car # 144 Major Accident Repair

Car # 149 Open Work Orders, Broken Mileage Odometer

Car # 235 Held for P2000 Overhaul (Power Trucks, Traction Motors, etc.)

Car # 238 Major Accident Repair

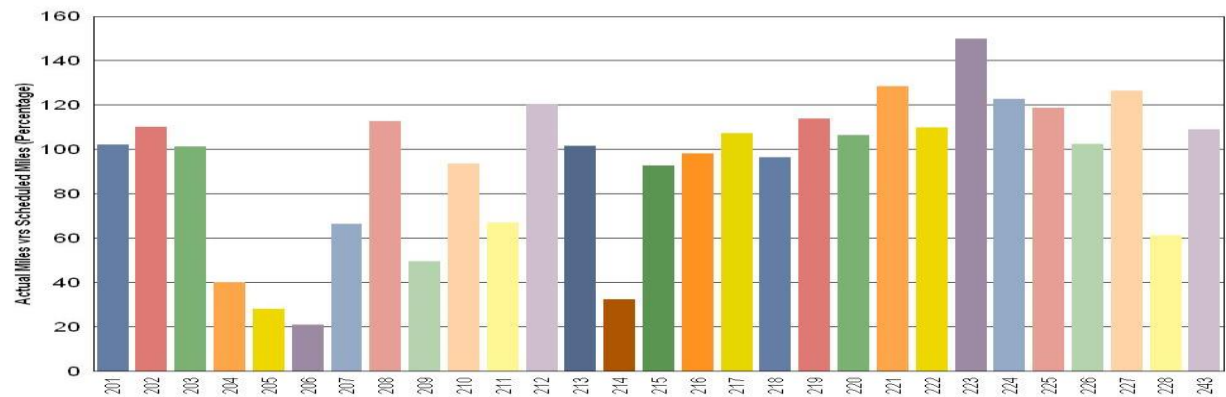
Green Line: The following cars were out of service due to:

Car # 205 45K Inspection, Door Overhaul

Car # 206 EMI Issues and Body Shop Seat Modification

Car # 214 90K Inspection

Metro Green Line (29 Cars)



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

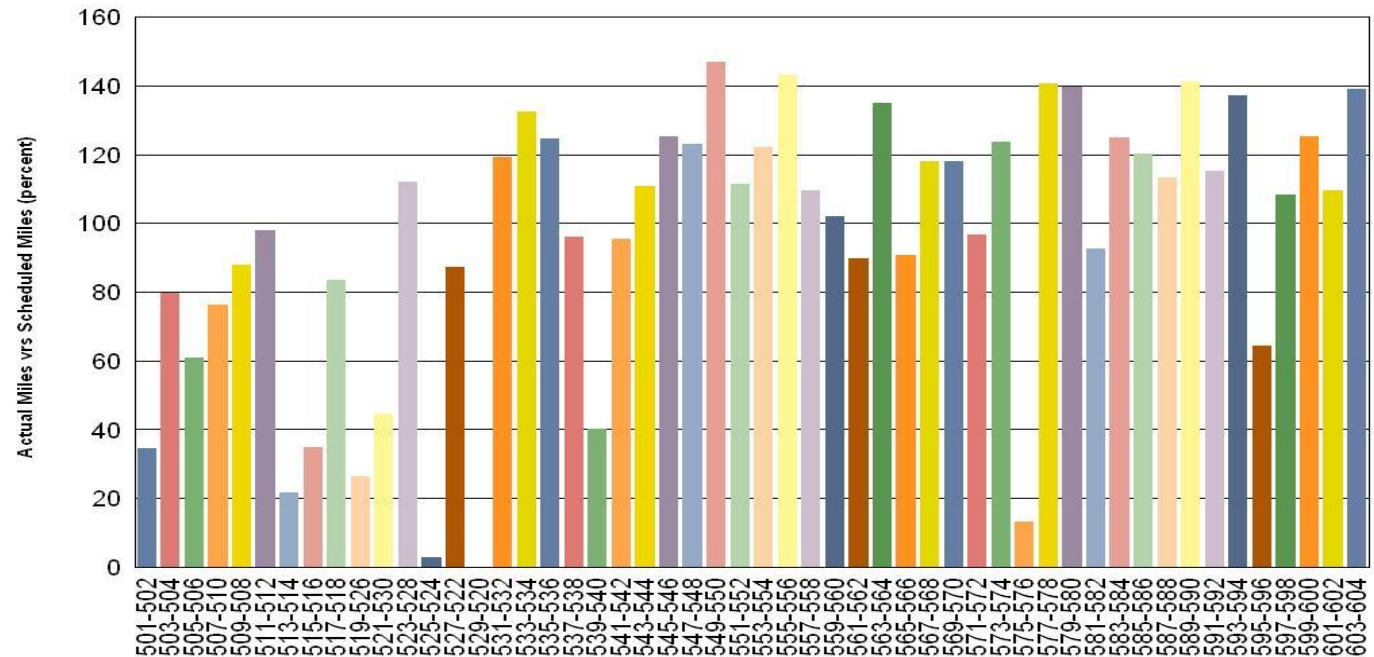
Vehicle Utilization January 2016

Red/Purple Line:

The following cars were out of service due to:

- Car # 501-502 90K Inspection
- Car # 513-514 Propulsion
- Car # 515-516 Friction Brakes
- Car # 519-526 HSBC
- Car # 525-524 Propulsion
- Car # 529-520 Waiting on Traction Motors
- Car # 575-576 45K Inspection

Metro Red/Purple Line (104 Cars)



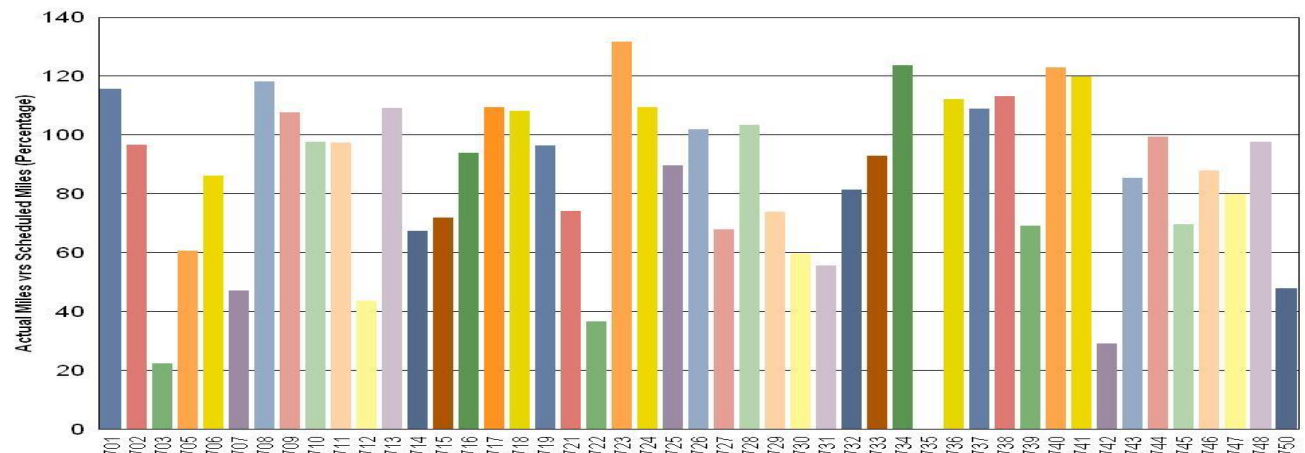
Gold Line:

The following cars were out of service due to:

- Car # 722 Protrans Unit Repair by RailComm; at Div 24 for Operator Training
- Car # 735 Auxiliary Inverter Repair
- Car # 742 Miscellaneous Component Repairs and Modification

Note: Car # 703 is currently at Division 24 for Operator Training.

Metro Gold Line (50 Cars)

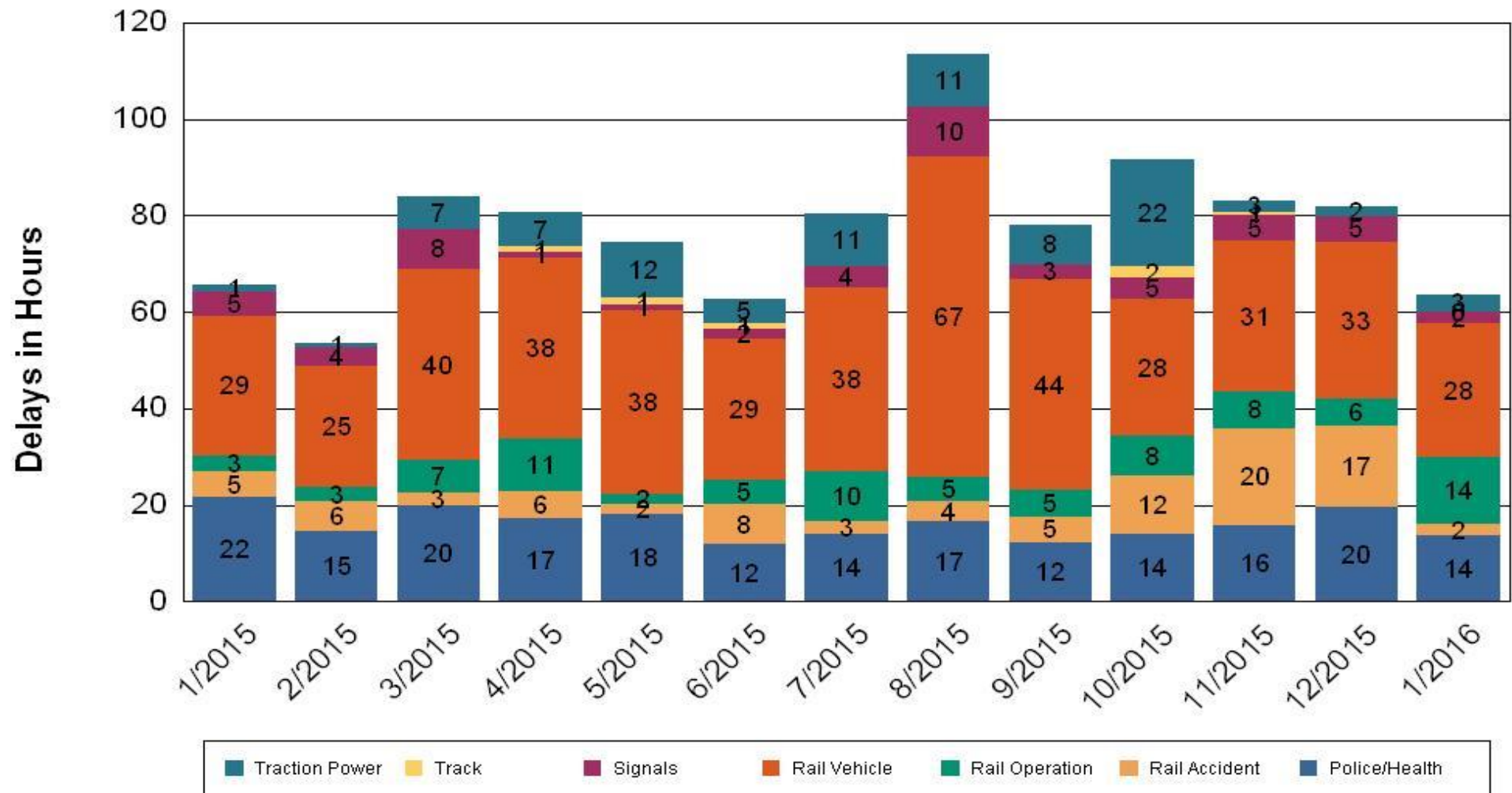


•Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.

All Train Delays (Hours) January 2015-2016

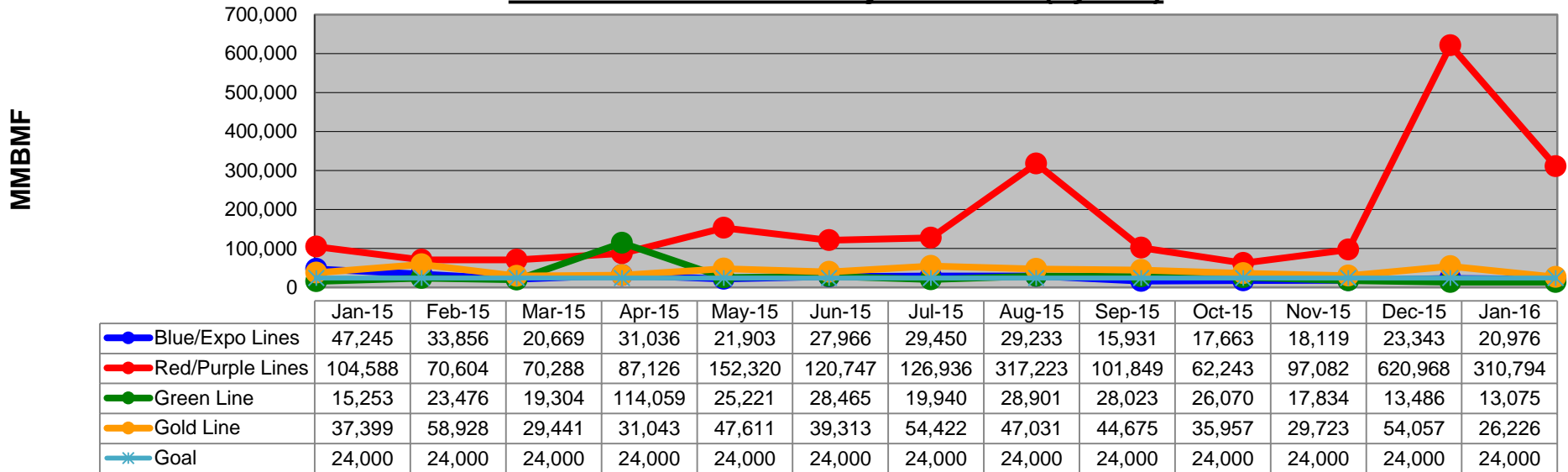
All Train Delays

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

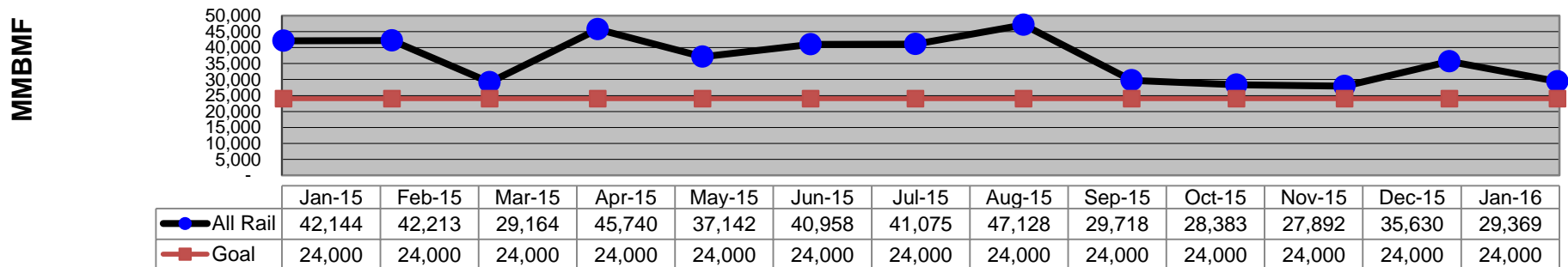


Mean Miles Between Failures (Major) January 2015-2016

Mean Miles Between Major Failures (by line)



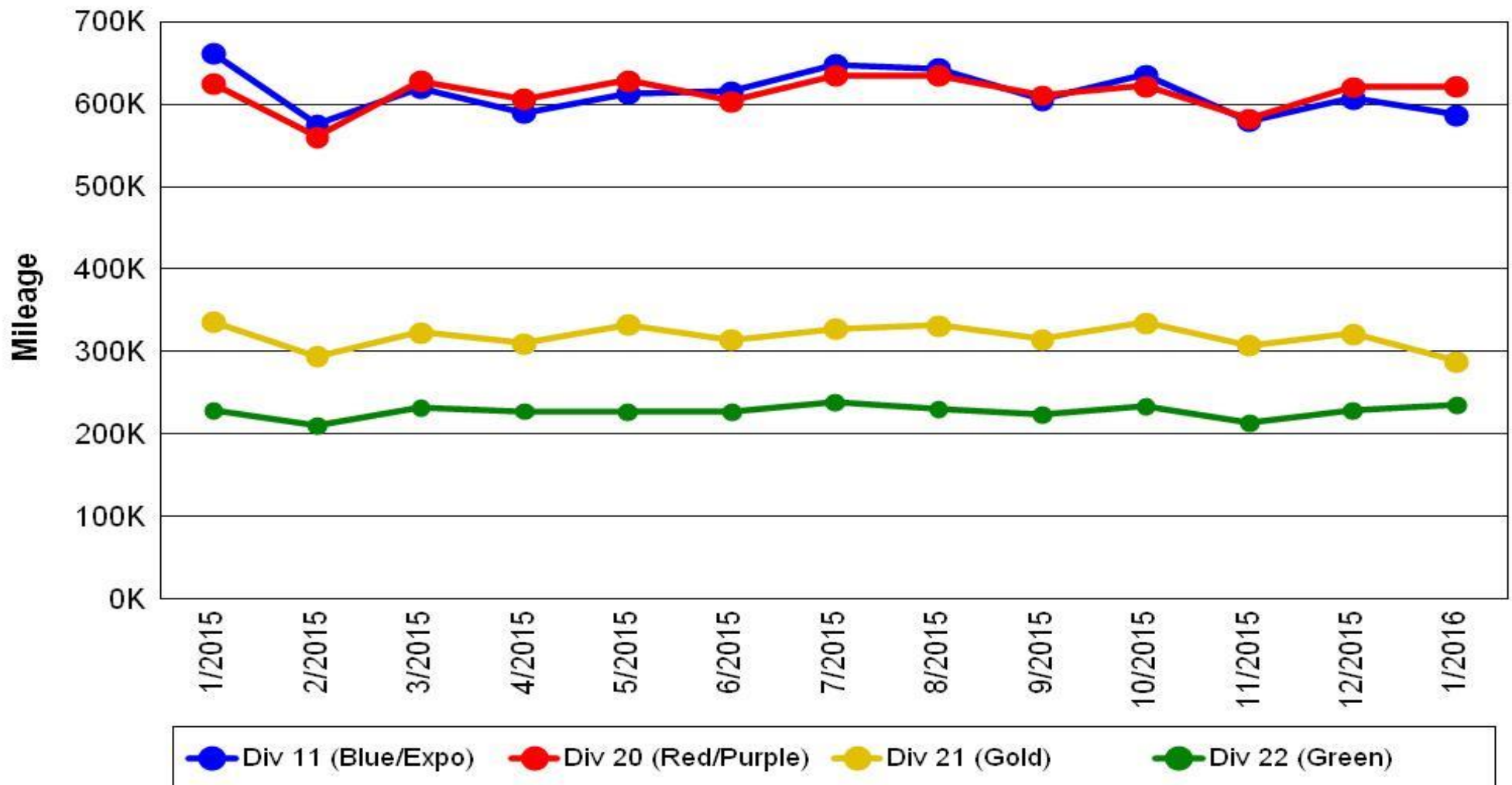
Mean Miles Between Major Failures (all)



Mileage Between Data Range (by month)

January 2015-2016

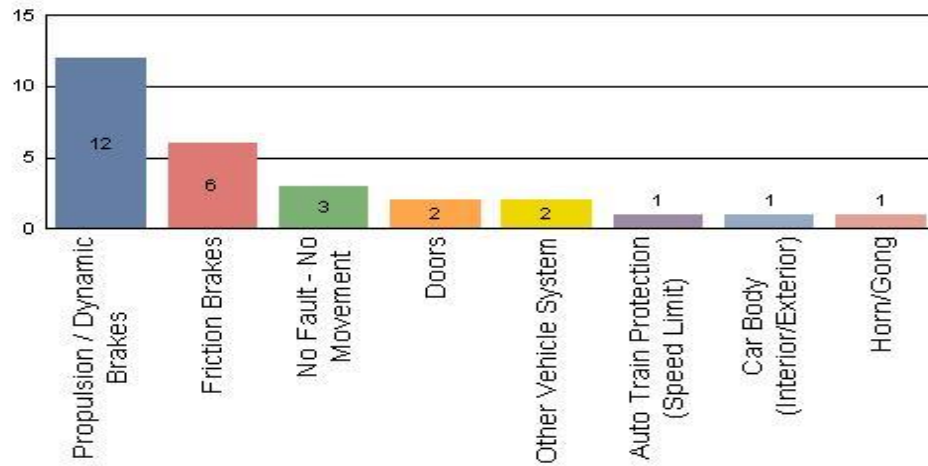
Rail Division Monthly Mileage



Top Incident Categories January 2016

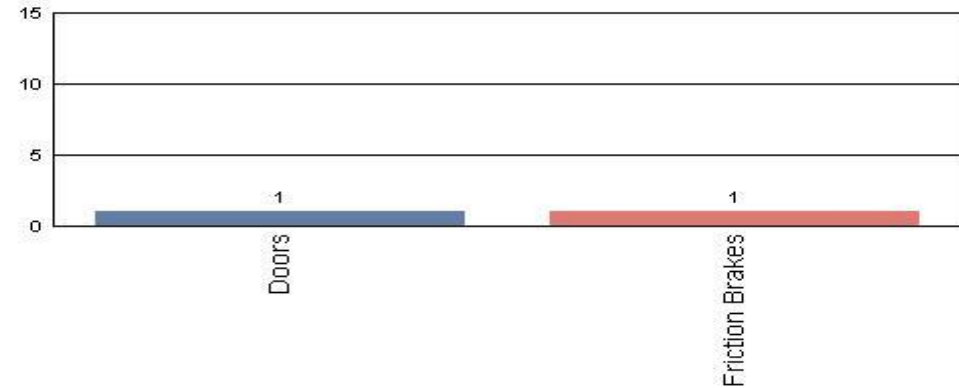
Metro Blue/Expo Line

Top Incident Categories



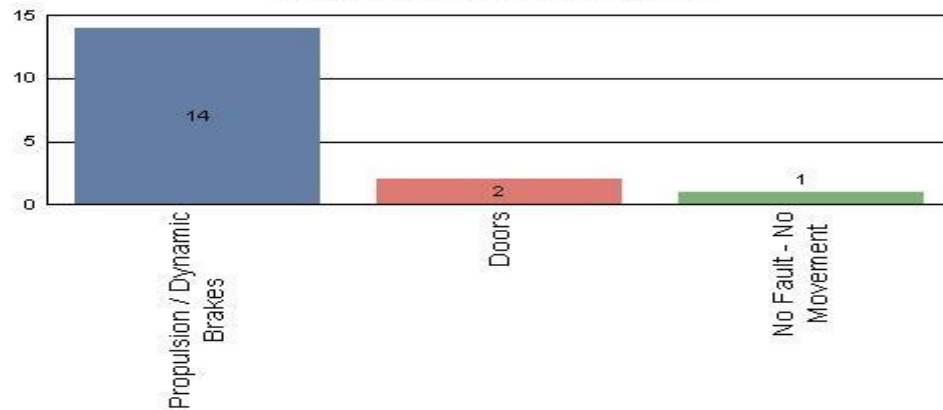
Metro Red/Purple Line

Top Incident Categories



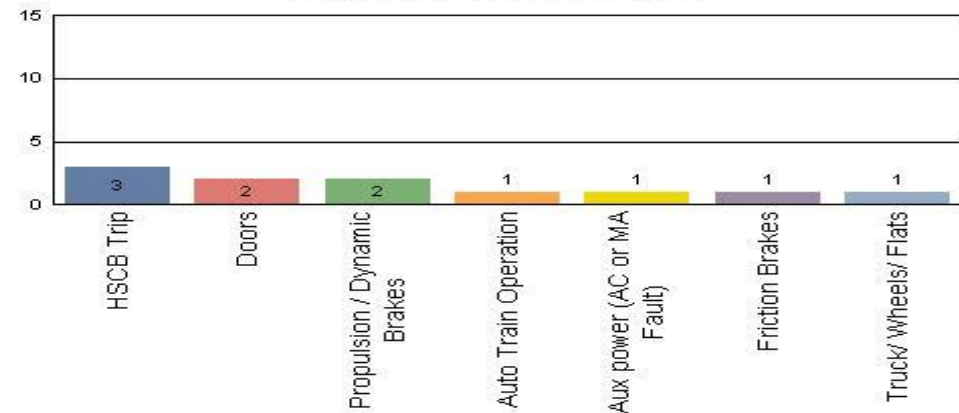
Metro Green Line

Top Incident Categories



Metro Gold Line

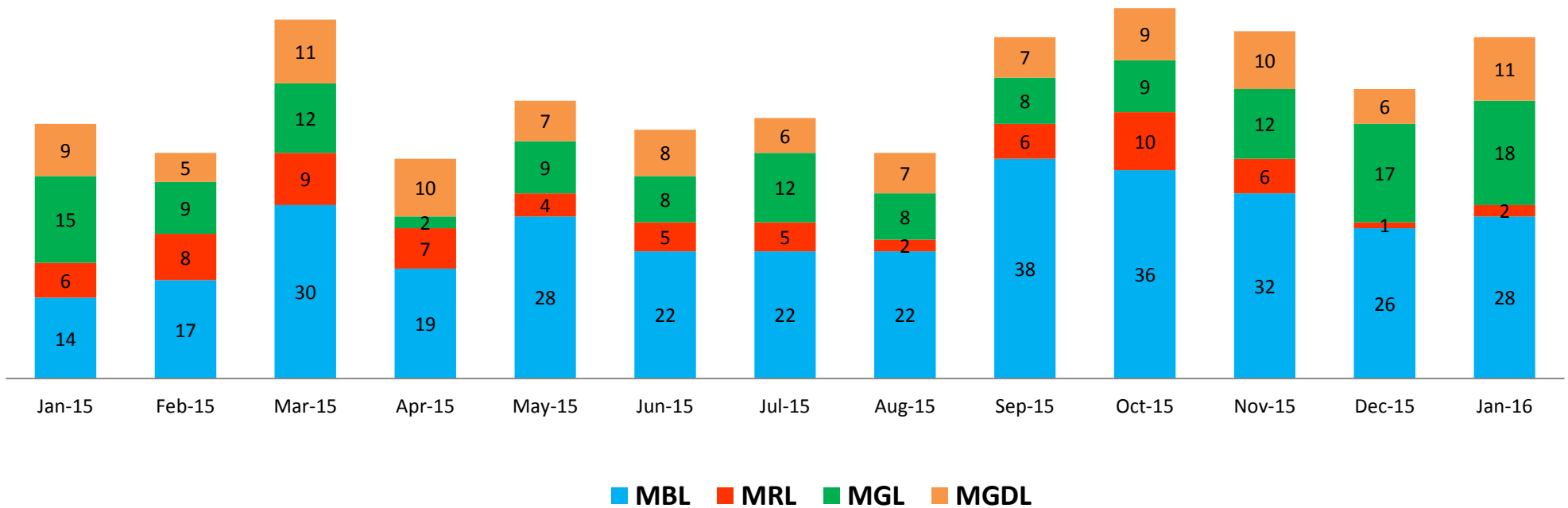
Top Incident Categories



Major Incidents

January 2015-2016

Numbers of Major System Failures (by Line)

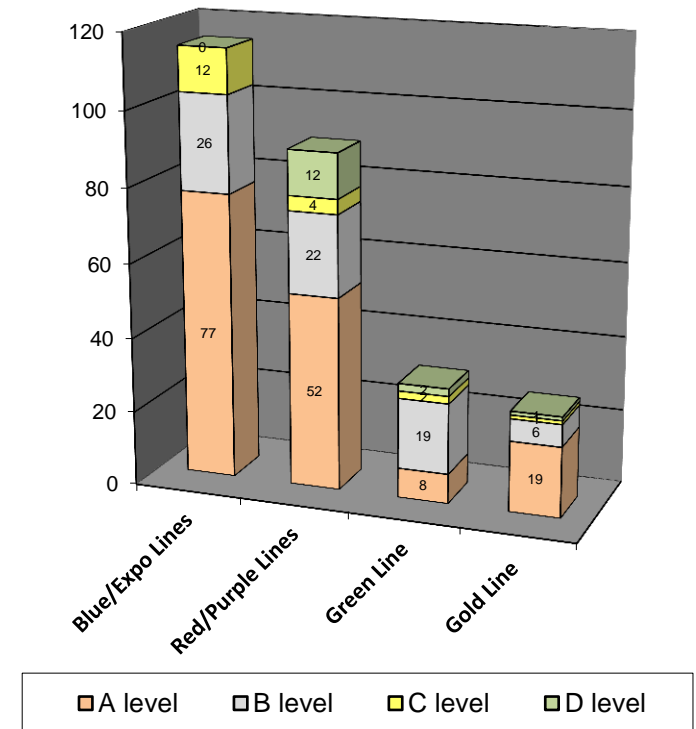


Preventive Maintenance Compliance January 2015-2016

PM Compliance	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16
Blue/Expo Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Red/Purple Lines	100%	100%	100%	97%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Green Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	93%	97%	97%
Gold Line	100%	100%	100%	100%	100%	96%	100%	100%	100%	94%	100%	100%	100%

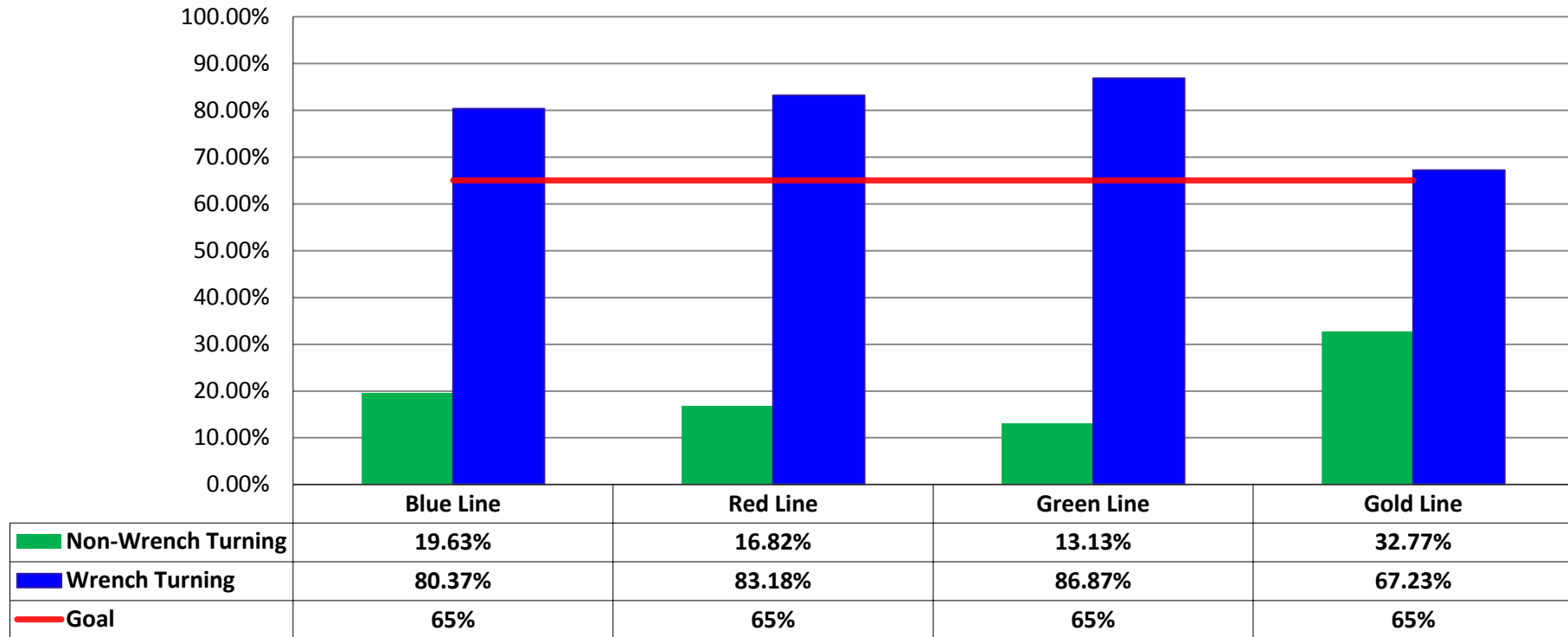
Number of Preventive Maintenance Inspections - January 2016					
Line	A level	B level	C level	D level	Totals
Blue/Expo Lines	77	26	12	0	115
Red/Purple Lines	52	22	4	12	90
Green Line	8	19	2	2	31
Gold Line	19	6	1	1	27
Totals:	156	73	19	15	263

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 January 2016

RFS - Leader Wrench Turning January 2016

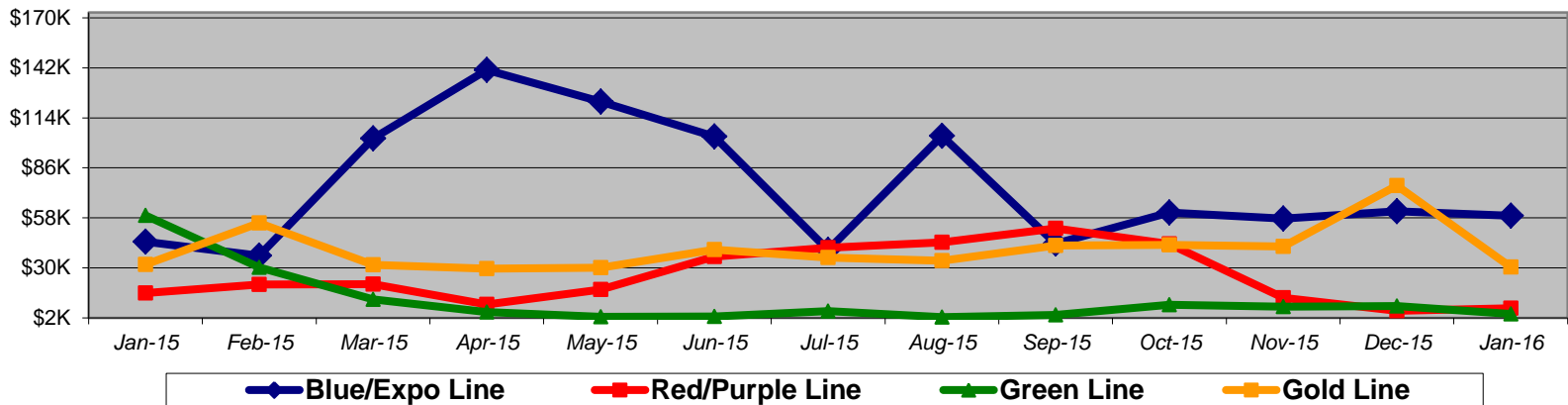


Notes: Labor hours contributed by Maint Specialist Leader, Rail Body/Paint Repair Leader, and Maint Specialist Temporary Leader

Vandalism & Graffiti Report

January 2015-2016

	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	13-Month Period
Blue/Expo Line	\$45K	\$37K	\$103K	\$141K	\$123K	\$104K	\$40K	\$104K	\$43K	\$61K	\$58K	\$62K	\$59K	\$978K
Red/Purple Line	\$16K	\$21K	\$21K	\$9K	\$18K	\$36K	\$41K	\$44K	\$52K	\$43K	\$13K	\$6K	\$7K	\$328K
Green Line	\$59K	\$30K	\$12K	\$5K	\$3K	\$3K	\$6K	\$2K	\$4K	\$9K	\$8K	\$9K	\$4K	\$154K
Gold Line	\$32K	\$55K	\$32K	\$30K	\$30K	\$40K	\$36K	\$34K	\$42K	\$43K	\$42K	\$76K	\$30K	\$522K
Totals:	\$152K	\$143K	\$167K	\$185K	\$173K	\$183K	\$123K	\$185K	\$142K	\$156K	\$121K	\$152K	\$101K	\$1,983K



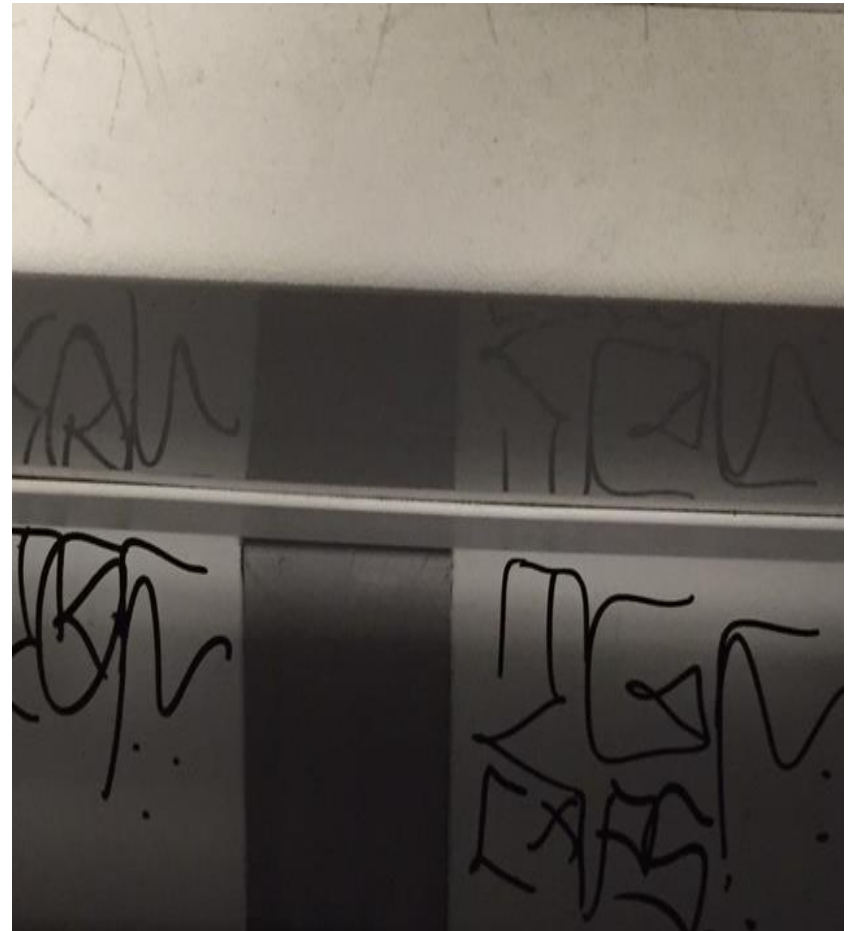
January 2016 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows Replaced	115	\$ 16,065	\$ 24,342	\$ 40,407
Vandal Shields Replaced	411	\$ 9,440	\$ 9,541	\$ 18,981
Seats Cleaned	400	\$ 3,305	\$ -	\$ 3,305
Seats Inserts Replaced	231	\$ 6,836	\$ 7,137	\$ 13,973
Graffiti Removal - Other	507	\$ 14,917	\$ 1,438	\$ 16,355
Repainting Panels	257	\$ 8,096	\$ -	\$ 8,096
Totals	1,921	\$ 58,659	\$ 42,458	\$ 101,117

Graffiti Pictures January 2016

Blue Line

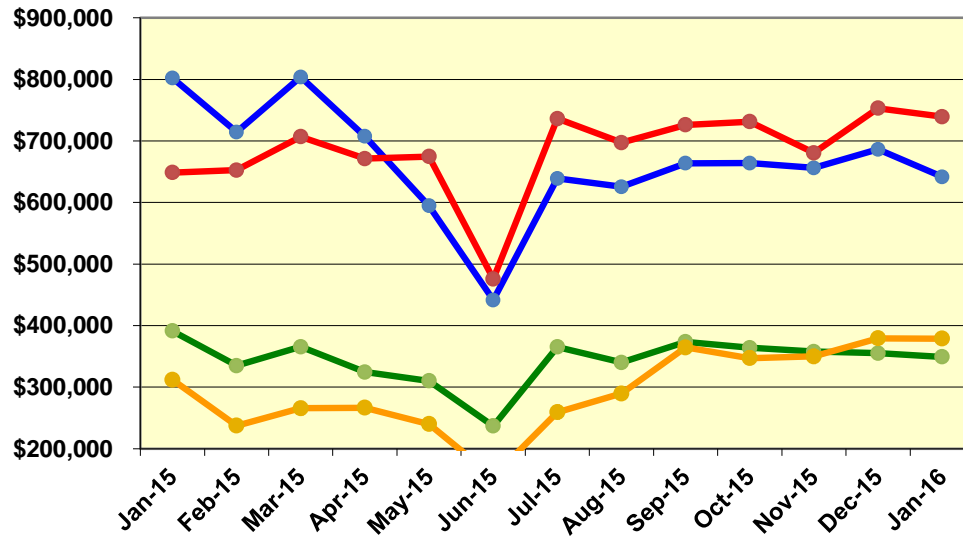


Gold Line

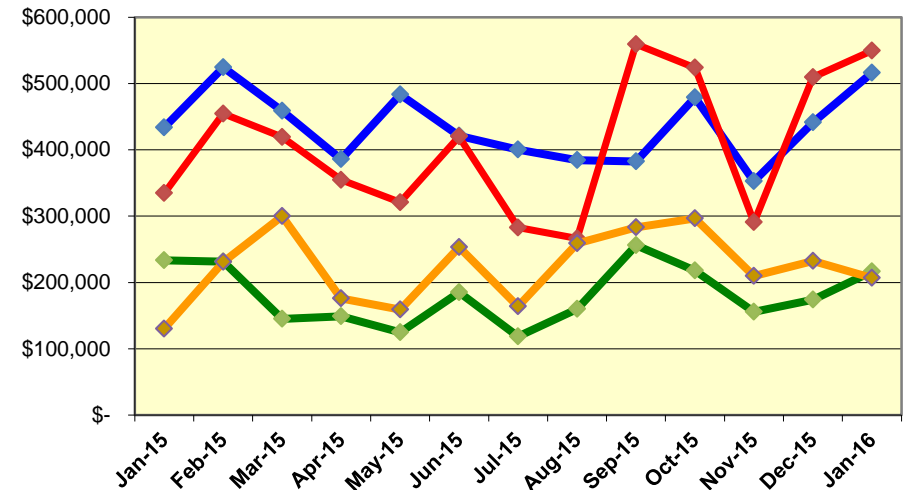


Labor and Material Costs January 2015-2016

Labor Costs



Material Costs



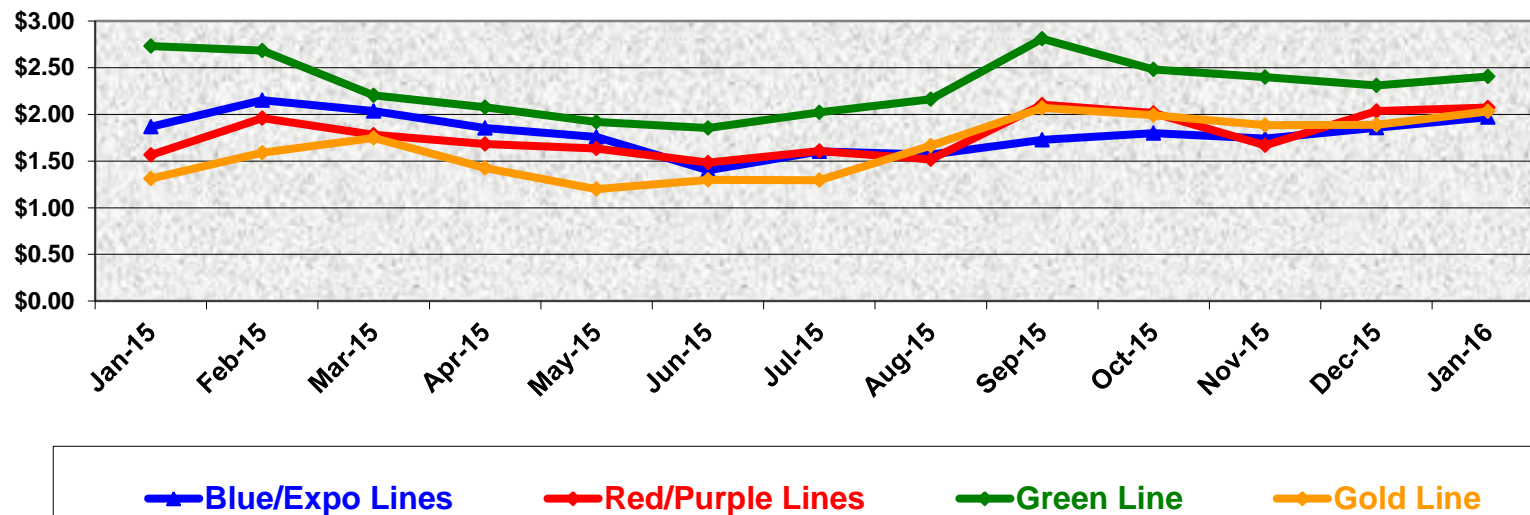
	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15*	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16
Labor Costs													
Blue/Expo Lines	\$ 802,256	\$ 714,349	\$ 803,757	\$ 707,348	\$ 594,550	\$ 441,364	\$ 638,967	\$ 625,577	\$ 663,752	\$ 663,965	\$ 656,195	\$ 686,227	\$ 641,613
Red/Purple Lines	\$ 648,538	\$ 652,406	\$ 706,794	\$ 671,084	\$ 674,681	\$ 475,810	\$ 736,269	\$ 697,095	\$ 726,107	\$ 731,128	\$ 680,629	\$ 753,216	\$ 739,336
Green Line	\$ 391,161	\$ 334,919	\$ 365,457	\$ 324,550	\$ 310,181	\$ 236,931	\$ 365,229	\$ 340,115	\$ 373,698	\$ 363,868	\$ 357,622	\$ 355,057	\$ 349,152
Gold Line	\$ 311,868	\$ 237,438	\$ 265,835	\$ 266,529	\$ 240,056	\$ 154,498	\$ 259,228	\$ 289,571	\$ 364,544	\$ 347,072	\$ 350,038	\$ 379,336	\$ 378,751
Totals	\$ 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	\$ 2,106,033	\$ 2,044,483	\$ 2,173,836	\$ 2,108,852

	Material Costs												
Blue/Expo Lines	\$ 433,347	\$ 524,157	\$ 458,588	\$ 385,794	\$ 483,368	\$ 421,088	\$ 400,315	\$ 384,178	\$ 382,274	\$ 478,960	\$ 352,710	\$ 441,523	\$ 515,933
Red/Purple Lines	\$ 334,623	\$ 454,326	\$ 419,099	\$ 354,492	\$ 320,754	\$ 420,042	\$ 282,744	\$ 266,405	\$ 559,179	\$ 523,558	\$ 290,721	\$ 509,448	\$ 549,576
Green Line	\$ 233,318	\$ 231,562	\$ 144,927	\$ 148,839	\$ 125,054	\$ 185,086	\$ 118,559	\$ 159,916	\$ 256,185	\$ 217,820	\$ 155,914	\$ 174,269	\$ 216,535
Gold Line	\$ 130,036	\$ 230,896	\$ 300,170	\$ 175,922	\$ 159,016	\$ 253,284	\$ 163,954	\$ 258,793	\$ 282,958	\$ 296,684	\$ 209,546	\$ 232,338	\$ 206,856
Totals	\$ 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	\$ 1,517,022	\$ 1,008,891	\$ 1,357,578	\$ 1,488,899

Cost Per Mile January 2015-2016

Cost per mile:	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Average
Blue/Expo Lines	\$1.87	\$2.15	\$2.04	\$1.85	\$1.76	\$1.40	\$1.60	\$1.57	\$1.73	\$1.80	\$1.74	\$1.86	\$1.97	\$1.80
Red/Purple Lines	\$1.57	\$1.96	\$1.78	\$1.68	\$1.63	\$1.48	\$1.61	\$1.52	\$2.10	\$2.02	\$1.67	\$2.03	\$2.07	\$1.78
Green Line	\$2.73	\$2.68	\$2.20	\$2.08	\$1.92	\$1.85	\$2.02	\$2.16	\$2.81	\$2.48	\$2.40	\$2.31	\$2.40	\$2.31
Gold Line	\$1.31	\$1.59	\$1.75	\$1.43	\$1.20	\$1.30	\$1.30	\$1.67	\$2.07	\$1.99	\$1.88	\$1.89	\$2.03	\$1.65

Cost per Mile



ATU Absences vs. Overtime

January 2016

ABSENCE TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	3948 Monrovia	Total
BER-BEREAVEMENT	56	8	16	16	-	96
CTO-COMPENSATORY TIME OFF	339	248	100	160	16	863
CUT-EMPLOYEE LEAVES EARLY	1	-	-	1	0	3
DSL-DISABILITY LEAVE/LONG	1,160	776	-	416	-	2,352
EFH-EMG. FLOAT HOL.	24	32	8	-	-	64
ETO-EXCUSED TIME OFF	116	38	7	16	12	188
FMI-FAM IND INJURY	-	40	-	16	-	56
FML-FAMILY CARE LEAVE	344	276	128	184	-	932
FMS-FAMILY LEAVE SICK	60	19	24	40	-	143
HLF-HOLIDAY FLOATING	200	232	64	80	32	608
HNP-HOLIDAY NOT PAID	-	-	8	8	-	16
HOL-HOLIDAY LEGAL	712	536	80	160	48	1,536
II-INDUSTRIAL INJURY	-	-	12	-	88	100
IIR-INDUS INJURY -REOCCUR.	-	168	-	-	-	168
JUR-JURY DUTY	-	8	8	8	8	32
LC1-LABOR CODE 233	424	290	168	192	72	1,146
LTI-OCCPIL/LONGTRM INJ LEAVE	168	336	-	-	-	504
MLN-MILITARY ABSENCE-UNPAID	8	-	-	-	-	8
OWP-OFF WITH PERMISSION	5	9	-	-	-	13
RTO-REQUESTED TIME OFF-NO PAY	1	6	32	-	-	39
SCK-SICK PAY	482	280	177	122	16	1,077
SCW-SICK WITHOUT PAY	97	24	64	-	16	201
TAR-TARDY	3	1	2	2	0	8
VAC-VACATION	885	1,004	236	296	156	2,577
VAS-VACATION WHILE SICK	-	57	-	-	-	57
TRAINING	376	472	560	400	968	2,776
Total Absence Hours	5,460	4,859	1,693	2,117	1,432	15,561
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	25%	27%	21%	25%	N/A	28%

OVERTIME TYPE and HOURS	3941 & 3947 Blue & Expo	3942 Red	3943 Green	3944 Gold	3948 Monrovia	Total
CTB-COMPENSATORY TIME TO BANK	133	126	78	53	36	425
OTP-PREM OVERTIME	3,302	4,272	1,206	871	315	9,967
TRO OVERTIME	-	8	-	-	-	8
WLO-Worked Lunch Overtime	152	165	92	49	4	461
Total Overtime Hours	3,587	4,571	1,376	972	354	10,861
Overtime as a % of Work Force	17%	25%	17%	12%	N/A	19%

*Training hours captured by Instruction Department are added to Absences report.

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

RFS Instruction Department Activities

January 2016

LRV Training classes completed during the month of January 2016

Description	Course Hours	Student Count	Training Hours
Blue & Expo Line Training - (P865/2020 & P2000 LRVs):			
RFS 865/2020 KB-POWERTECH INVERTER	24	3	72
RFS SIEMENS 2000 COUPLER	8	2	16
RFS SIEMENS 2000 PANTOGRAPH	8	2	16
RFS SIEMENS 2000 LIGHTS & DEST SIGN	16	2	32
RFS SIEMENS 2000 GE HARMON ATP	48	5	240

Total Blue Line Training (Hours): 376

Light Rail Training [In Monrovia (P3010 LRVs)]:

RFS KINKISHARYO PROPULSION PWR/CTRL ELECT	48	11	528
RFS KINKISHARYO VEHICLE SYSTEMS	40	11	440

Total Light Rail Training (Hours): 968

Gold Line Training (P2550 LRVs):

RFS 1998-WEST-BRANDT HIGH-RAIL TRUCK	8	2	16
RFS ANSALDOBREDA 2550 EVENT RECORDER	16	4	64
RFS ANSALDOBREDA 2550 INTEGRATED DISPLAY	24	4	96
RFS ANSALDOBREDA 2550 DOORS	32	4	128
RFS ANSALDOBREDA 2550 COMMUNICATIONS	24	4	96

Total Gold Line Training (Hours): 400

Green Line Training (P2000 LRVs):

RFS SIEMENS 2000 COUPLER	8	5	40
RFS SIEMENS 2000 COMMUNICATIONS	24	5	120
RFS SIEMENS 2000 HVAC	64	5	320
RFS SIEMENS 2000 LIGHTS & DEST SIGN	16	5	80

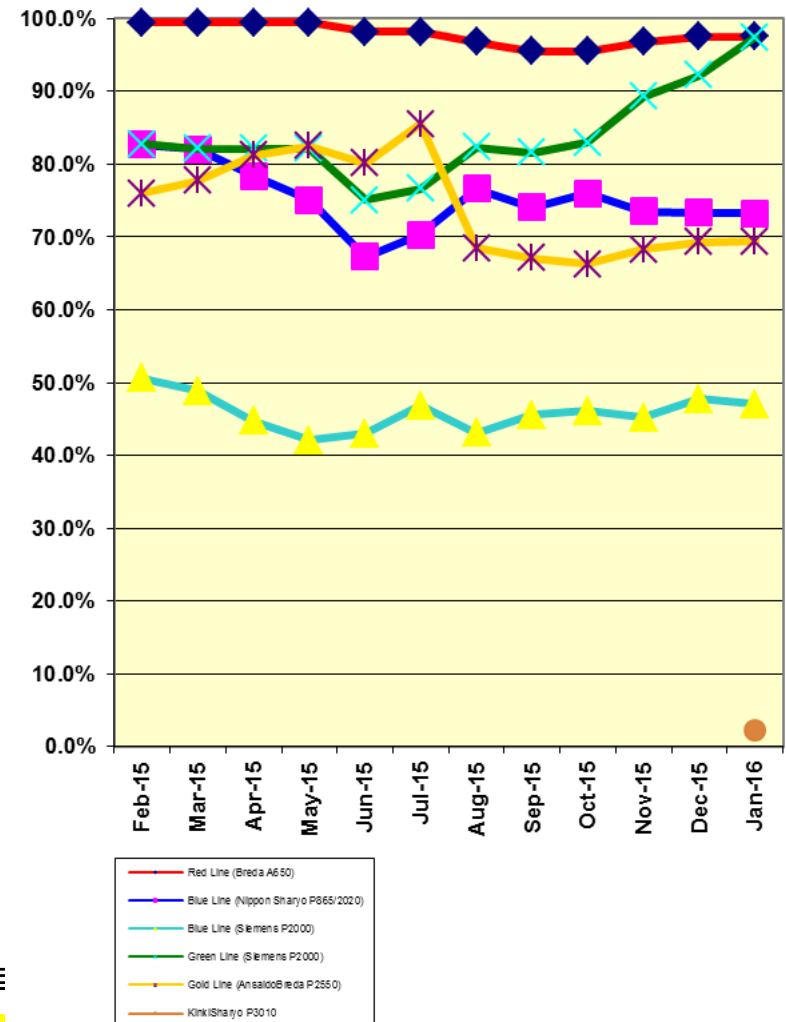
Total Green Line Training (Hours): 560

Total RFS Instruction for the month of January 2016 (Hours): 2,776

Core Vehicle Training Completed: BLUE GOLD RED GREE

Percentage of core vehicle training complete:	73.2%	69.4%	97.5%	97.4%
Siemens P2000 training complete:	47.0%	N/A	N/A	N/A
KinkiSharyo P3010 training complete:	2.2%	N/A	N/A	N/A
Average Specialist Rail Experience Level in Years:	11.0	6.8	12.0	9.6

Core Training Completed



RFS Instruction Department Activities

January 2016

HRV & Other Training classes completed during the month of January 2016

Description	Course Hours	Student Count	Training Hours
<u>Red Line Training (Breda A650 HRV):</u>			
RFS BRED A 650 MAINLINE DUTY, DEAD TOW AND VEHICLE	8	2	16
RFS SIMMONS WHEEL TRUE REFRESHER RFS SIMMONS \	24	2	48
REFRIGERANT RECOVERY SYSTEMS (608)	16	6	96
RFS BRED A 650 HVAC REFRESHER	24	5	120
RFS BRED A 650 GRS A.T.P.	48	4	192

Total Red Line Training (Hours): 472

<u>Other Instruction Activities</u>	C	A	TS	Total
A650 Curriculum, Administrative, and Technical Support	6	6	12	24
P865\P2020 Curriculum, Administrative, and Technical Support	60	20	40	120
P2000 Curriculum, Administrative, and Technical Support	40	24	80	144
P2550 Curriculum, Administrative, and Technical Support	16	8	16	40
P3010 Curriculum, Administrative, and Technical Support	32	16	24	72
Instructor Vacations and Holidays				112
<u>Total Other Instruction Activities</u>				<u>512</u>