



# **Rail Fleet Services Monthly Report November 2012**

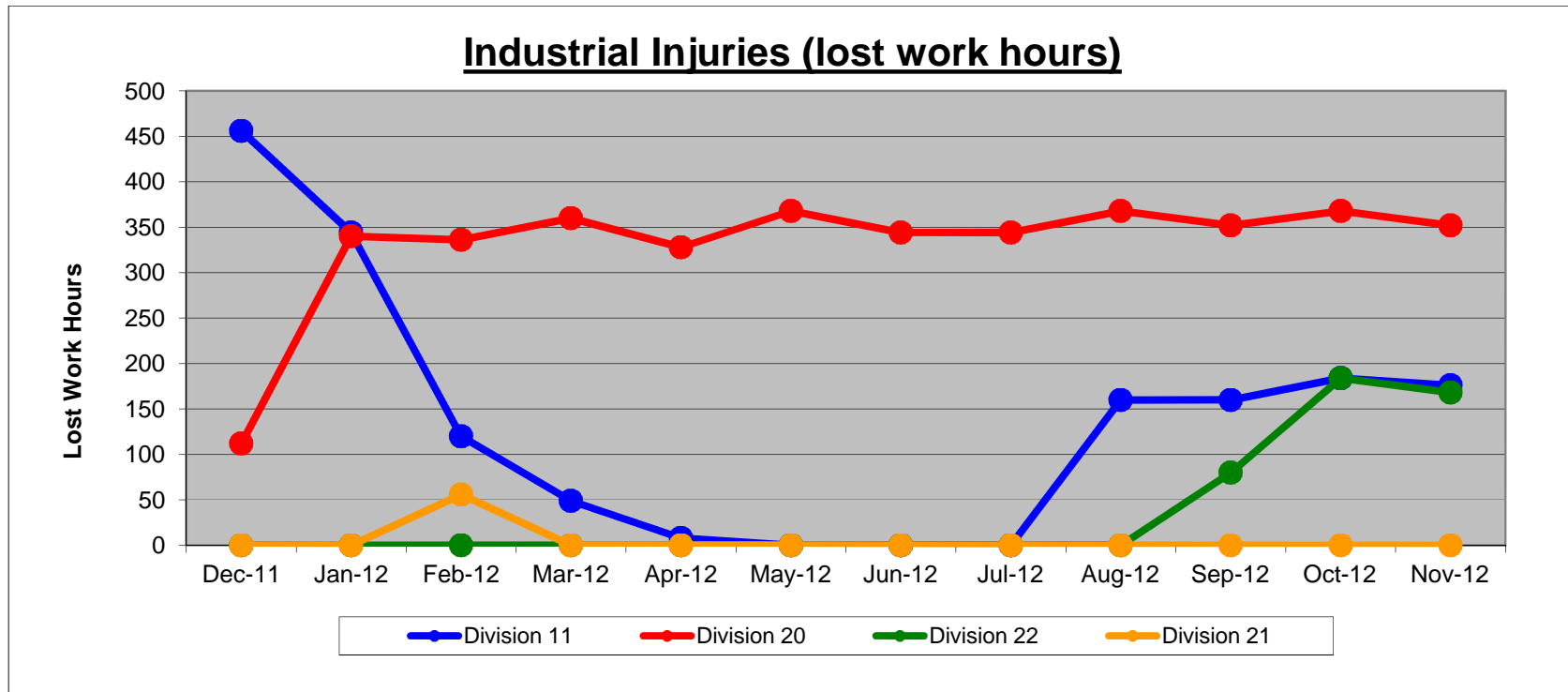


**Metro**

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# Industrial Injuries – Lost Work Hours November 2012



	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Year to Date
Division 11	456	344	120	49	8	0	0	0	160	160	184	176	1,657
Division 20	112	340	336	360	328	368	344	344	368	352	368	352	3,972
Division 22	0	0	0	0	0	0	0	0	0	80	184	168	432
Division 21	0	0	56	0	0	0	0	0	0	0	0	0	56
Totals	568	684	512	409	336	368	344	344	528	592	736	696	6,117

# Rail Vehicle Accidents & Major Incidents

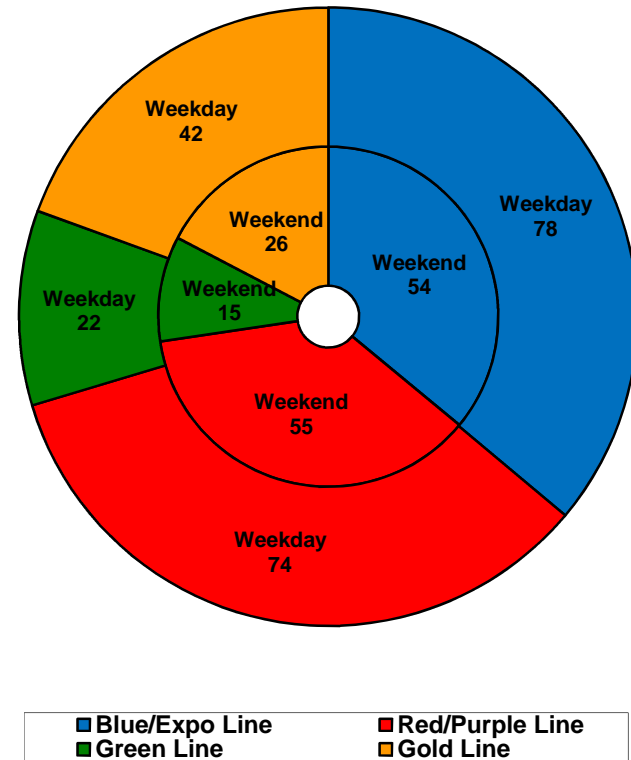
## November 2012

Repair Costs	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Totals
Blue/Expo Line	\$1,199	\$4,704	\$5,087	\$18,570	\$2,675	\$1,718	\$1,186	\$674	\$8,226	\$4,726	\$1,668	\$494	\$50,927
Red/Purple Line	\$0	\$0	\$0	\$0	\$1,115	\$571	\$0	\$0	\$0	\$778	\$0	\$0	\$2,464
Green Line	\$0	\$0	\$0	\$0	\$989	\$0	\$0	\$120	\$0	\$0	\$0	\$0	\$1,109
Gold Line	\$0	\$0	\$0	\$4,134	\$0	\$0	\$752	\$0	\$1,583	\$0	\$0	\$0	\$6,469
Totals	\$1,199	\$4,704	\$5,087	\$22,704	\$4,779	\$2,289	\$1,938	\$794	\$9,809	\$5,504	\$1,668	\$494	\$60,969

Rail Vehicle Accident Costs - November 2012				
Metro Blue Main Line				
Date	Incident #	Problem code	Incident Description	Cost
11/19/2012	2254477	Train vs. Pedestrian	A 10-72 was reported by operator at 5th street station involving train 12 heading southbound on track 2.	\$437.00
				<b>437.00</b>
Expo Main Line				
11/5/2012	2249431	Train vs. Vehicle	A 10-73 was reported at the intersection of Flower and Venice involving train 21.	\$15.00
11/8/2012	2250956	Train vs. Vehicle	A 10-73 was reported at Flower and 23rd Street heading southbound.	\$42.00
				<b>57.00</b>
				<b>GRAND TOTAL \$494.00</b>
(10-71) = Train vs. Object, (10-72) = Train vs. Pedestrian, (10-73) = Train vs. Vehicle (10-74) = Train vs. MTA Vehicle, (10-75) = Derailment				

# Service Delivery November 2012

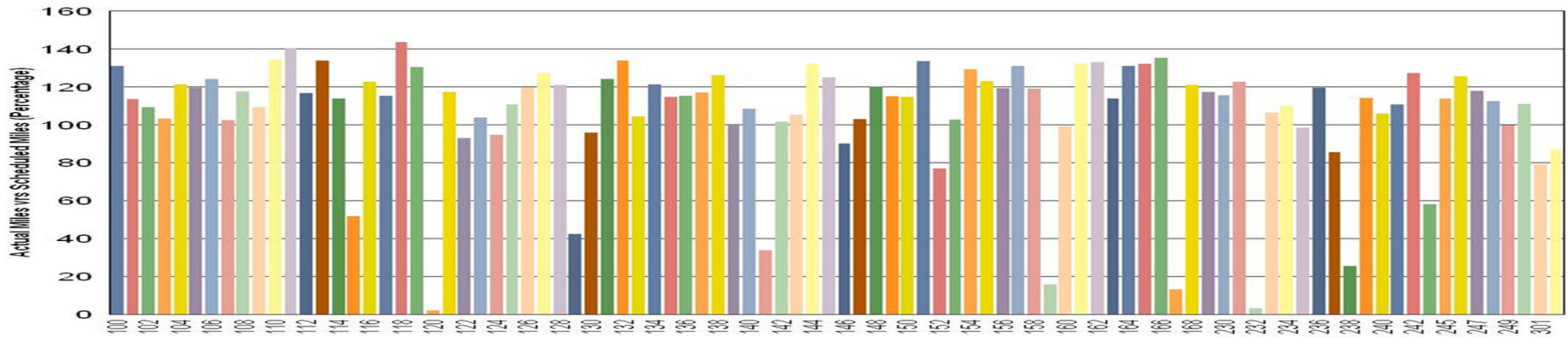
<b>Blue/Expo Line Fleet Size:</b>		<b>92</b>	
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	78	80	103%
Weekend:	54	71	132%
Late Pullouts: 2 *			
Monthly Mileage:		628,895	
<b>Red/Purple Line Fleet Size:</b>		<b>104</b>	
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	74	85	114%
Weekend:	55	77	140%
Late Pullouts: 0 *			
Monthly Mileage:		619,664	
<b>Green Line Fleet Size:</b>		<b>29</b>	
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	22	23	103%
Weekend:	15	19	126%
Late Pullouts: 0 *			
Monthly Mileage:		231,537	
<b>Gold Line Fleet Size:</b>		<b>50</b>	
<u>Pull Out</u>	<u>Vehicles Required</u>	<u>Average Available</u>	<u>% Up (Down)</u>
Weekday:	42	44	104%
Weekend:	26	43	165%
Late Pullouts: 0 *			
Monthly Mileage:		285,803	



\* Due to a vehicle -related problem

# Vehicle Utilization November 2012

Metro Blue/Expo Line Fleet



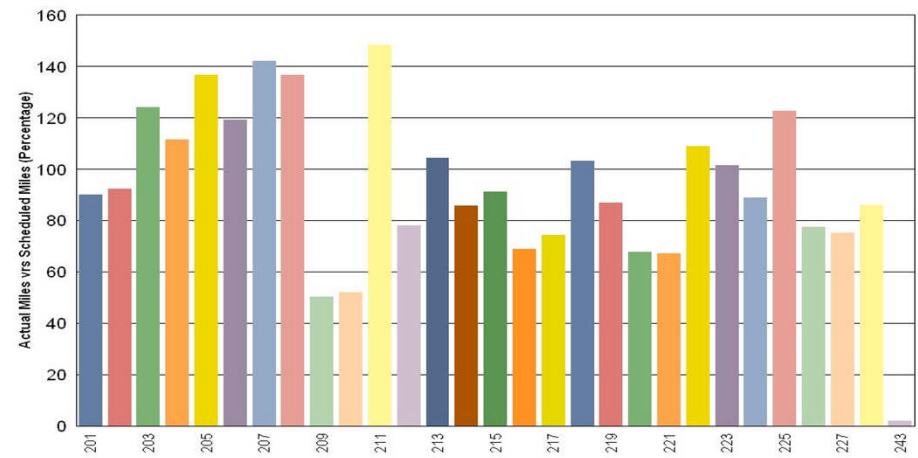
## Blue/Expo Lines:

- 120 Vehicle held out of service due to a friction brake self-applied problem.
- 141 Vehicle held out of service due to low usage involving a 30k inspection and a GRU problem.
- 159 Vehicle held out of service due to low usage involving a 60k inspection and various propulsion problems.
- 167 Vehicle held out of service due to repeated friction brake problems.
- 232 Vehicle held out of service due to training.
- 238 Vehicle held out of service due to low usage involving a 45k inspection and a friction brake overhaul.

## Green Line:

- 243 Vehicle held out of service due to a long term load weight issue that caused propulsion faults. Vehicle 243 has been repaired and is back in service.

Metro Green Line



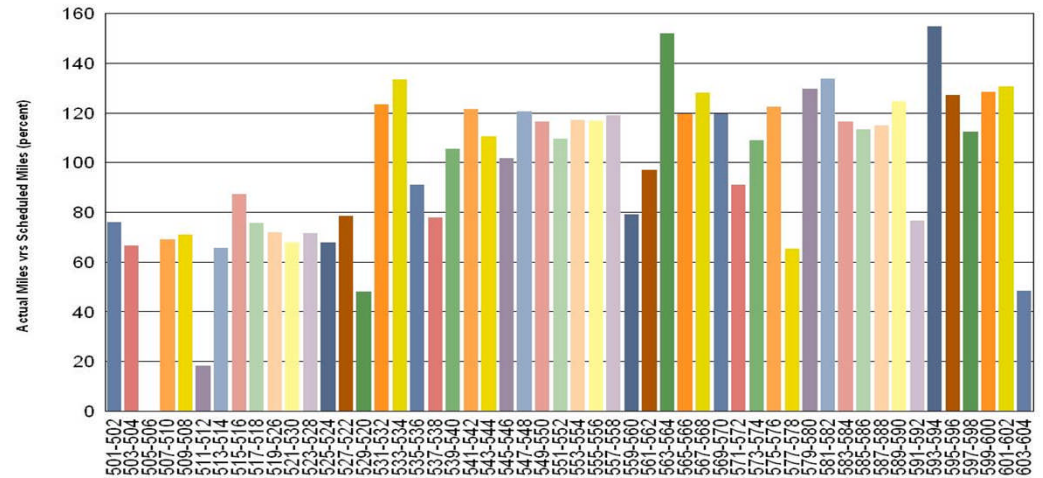
# Vehicle Utilization November 2012

## Red/Purple Lines:

Explanation for under-used vehicles:

- 505-506** Vehicle held out of service due previous mainline failure related to emergency brake application not releasing. Troubleshooting completed and staff continues to work on commission/static testing.
- 511-512** Vehicle held out of service due to the Traction Motor (TM) unwinding from the inside destroying the insulation and windings. This is the third TM with a low megger reading since the overhaul from vendor. Staff is working with engineering and vendor to come to a resolution.

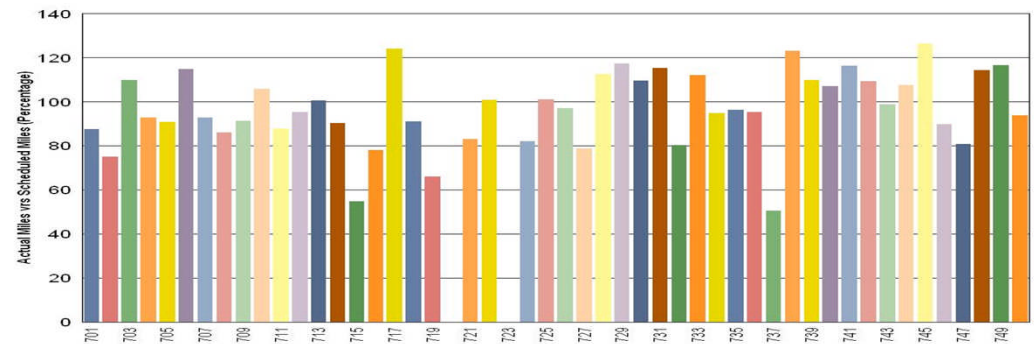
### Metro Red/Purple Lines



### Metro Gold Line

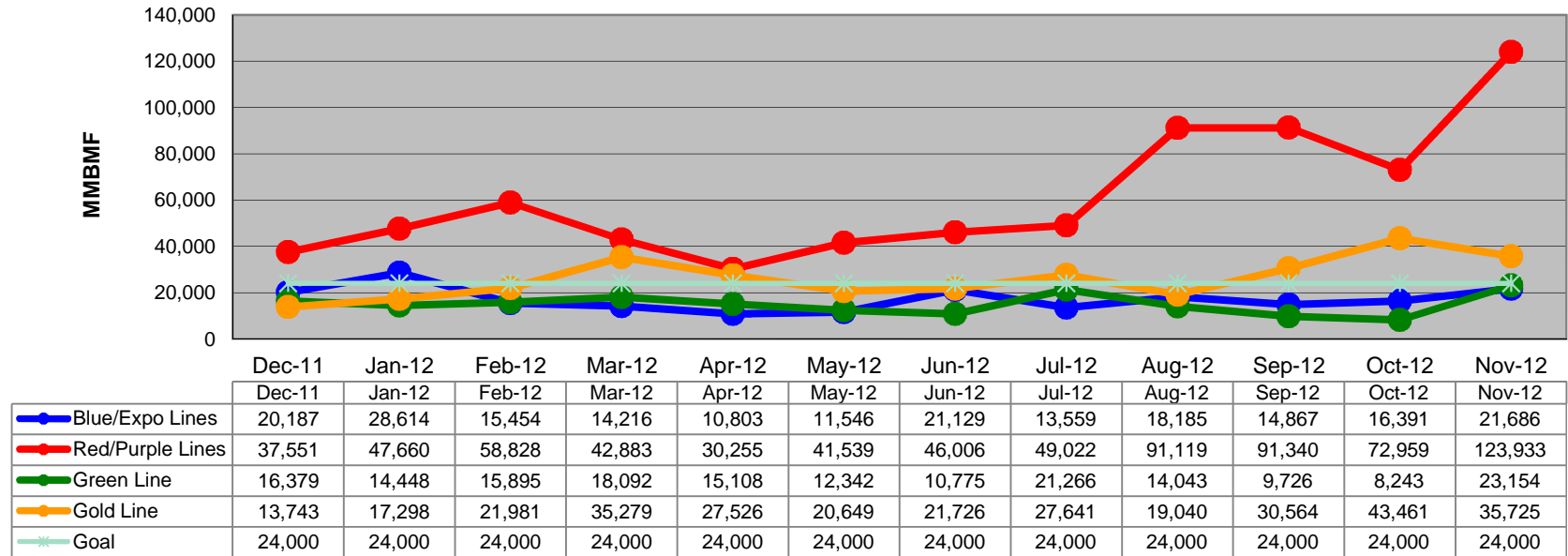
## Gold Line:

- 720** Vehicle wiring and terminations have been completed. Staff is installing and testing parts. Installation to be complete in December. Pre-revenue testing to begin at that time.
- 723** Work order opened on 10/29 for HVAC burned contactor (inside unit). Vendor is awaiting replacement parts.

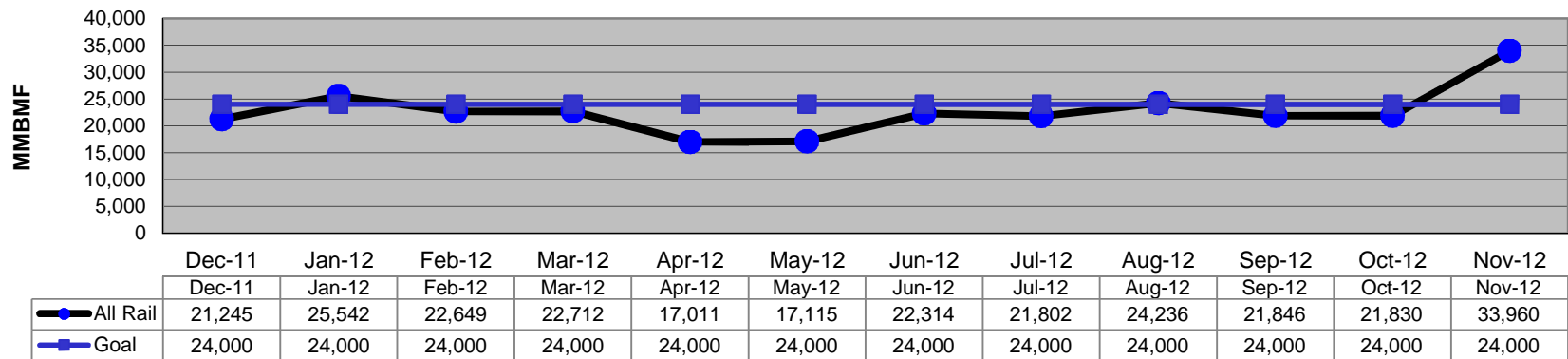


# Mean Miles Between Failures (Major) Year to Date

**Mean Miles Between Major Failures (12 months)**



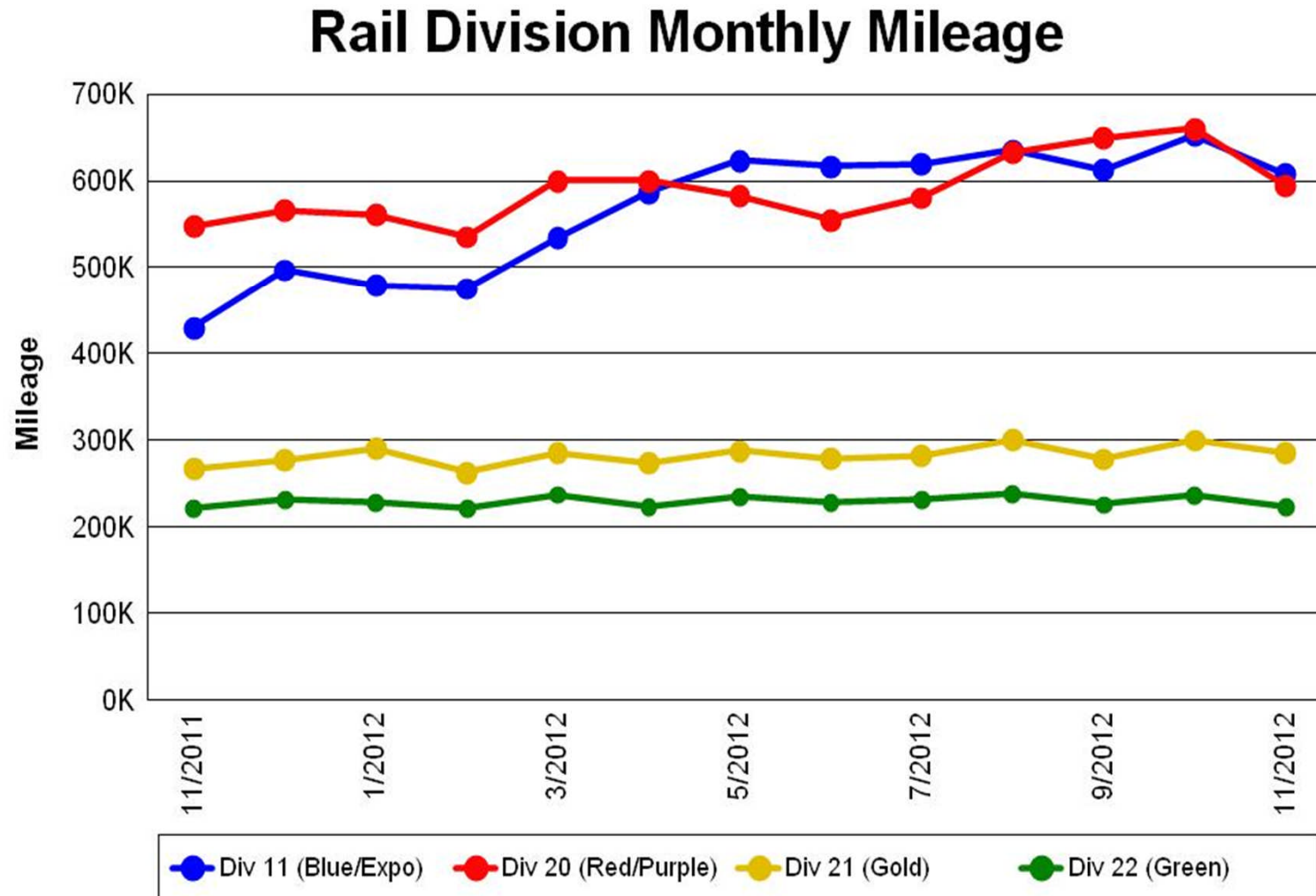
**Mean Miles Between Major Failures (all)**





# Mileage Between Data Range (by month)

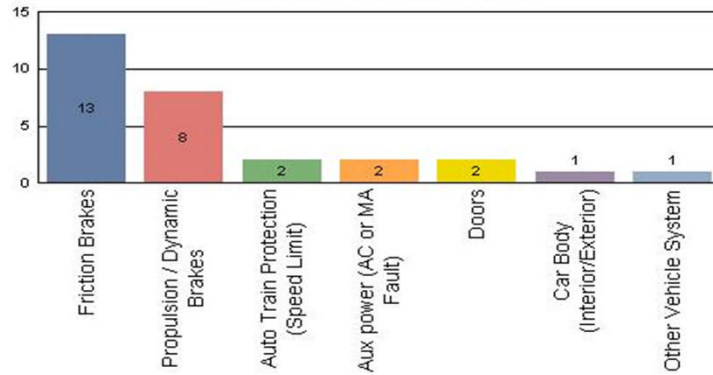
## November 2012



# Major Incidents November 2012

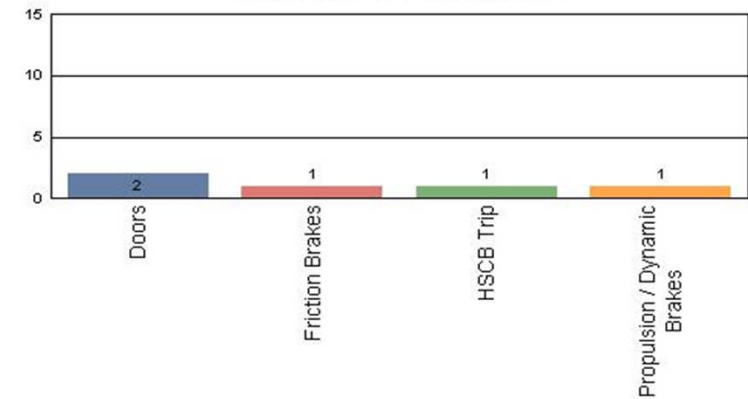
## Metro Blue/Expo Line

Top Incident Categories



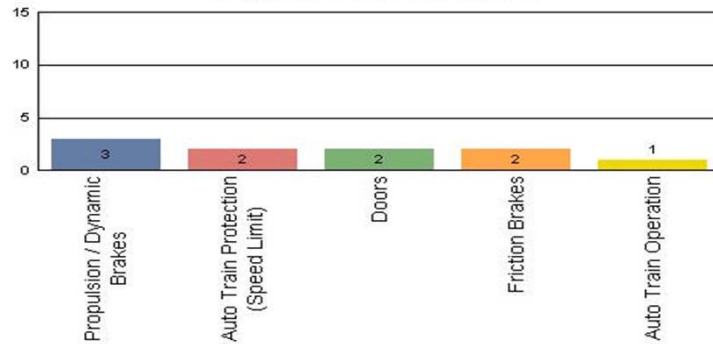
## Metro Red/Purple Line

Top Incident Categories



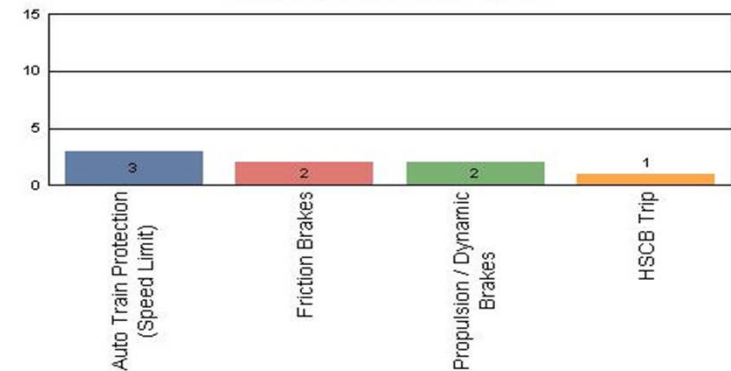
## Metro Green Line

Top Incident Categories



## Metro Gold Line

Top Incident Categories



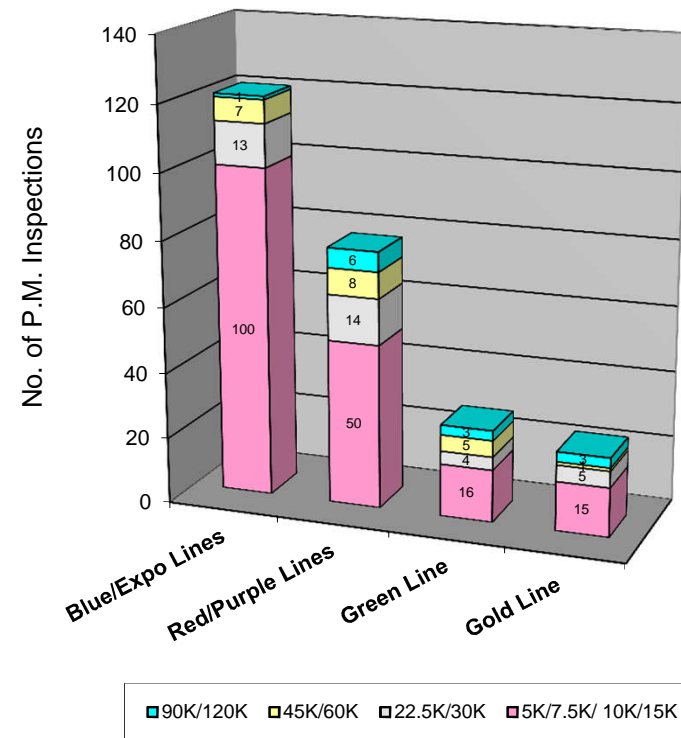
# Preventive Maintenance Compliance

## November 2012

PM Compliance	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Blue/Expo Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Red/Purple Lines	100%	100%	100%	100%	100%	100%	100%	100%	*98%	100%	100%	100%
Green Line	96%	100%	100%	100%	100%	100%	96%	100%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

### November 2012 Preventive Maintenance Inspections

No. of P.M. Inspections	5K/7.5K/10K/15K	22.5K/30K	45K/60K	90K/120K	Totals
Blue/Expo Lines	100	13	7	1	121
Red/Purple Lines	50	14	8	6	78
Green Line	16	4	5	3	28
Gold Line	15	5	1	3	24
Totals:	181	36	21	13	251

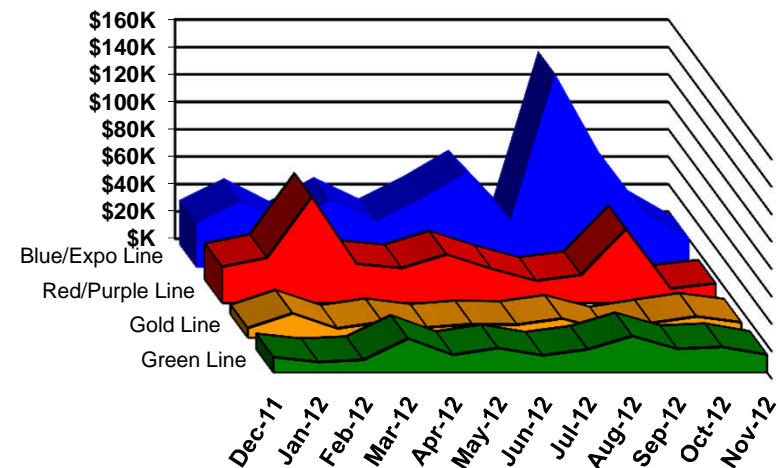


# Vandalism & Graffiti Report

## November 2012

	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Year-to-Date
Blue/Expo Line	\$33K	\$49K	\$32K	\$49K	\$34K	\$50K	\$69K	\$35K	\$142K	\$83K	\$40K	\$21K	\$636K
Red/Purple Line	\$26K	\$33K	\$77K	\$28K	\$25K	\$35K	\$25K	\$16K	\$20K	\$54K	\$10K	\$14K	\$366K
Green Line	\$11K	\$8K	\$9K	\$25K	\$13K	\$18K	\$12K	\$17K	\$27K	\$17K	\$19K	\$13K	\$188K
Gold Line	\$7K	\$18K	\$7K	\$11K	\$7K	\$10K	\$9K	\$14K	\$5K	\$11K	\$15K	\$11K	\$126K
Totals:	\$77K	\$107K	\$125K	\$114K	\$79K	\$113K	\$116K	\$82K	\$194K	\$165K	\$84K	\$59K	\$1,316K

November 2012 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows replaced	23	\$4,788	\$6,372	\$11,160
Vandal Shields	277	\$8,568	\$5,743	\$14,311
Seats Cleaned	203	\$301	\$0	\$301
Seats Replaced	110	\$3,467	\$8,107	\$11,574
Graffiti removal - other	930	\$13,599	\$1,200	\$14,799
Repainting panels	9	\$6,560	\$530	\$7,090
Totals	1,552	\$37,283	\$21,952	\$59,235



# Graffiti Pictures November 2012

Blue Line



Green Line



Gold Line

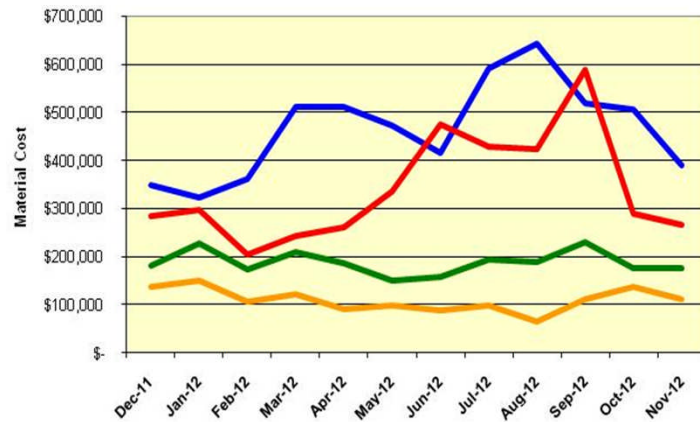


# Material and Labor Costs

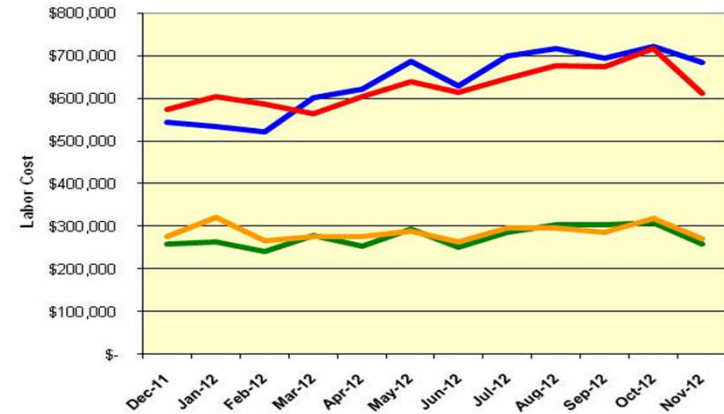
## November 2012

MATERIALS	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Blue/Expo Lines	\$ 346,891	\$ 322,169	\$ 359,911	\$ 510,512	\$ 511,185	\$ 473,281	\$ 414,601	\$ 591,928	\$ 643,006	\$ 520,023	\$ 506,591	\$ 388,758
Red/Purple Lines	\$ 285,916	\$ 296,353	\$ 205,225	\$ 244,902	\$ 260,532	\$ 335,824	\$ 474,908	\$ 428,864	\$ 424,173	\$ 587,362	\$ 289,365	\$ 265,900
Green Line	\$ 180,929	\$ 227,110	\$ 172,152	\$ 210,220	\$ 186,572	\$ 149,660	\$ 157,920	\$ 194,003	\$ 189,811	\$ 230,008	\$ 174,361	\$ 175,923
Gold Line	\$ 138,599	\$ 150,971	\$ 106,736	\$ 121,821	\$ 91,218	\$ 98,407	\$ 88,885	\$ 98,449	\$ 64,112	\$ 112,270	\$ 138,235	\$ 111,198
Totals	\$ 952,335	\$ 996,603	\$ 844,024	\$ 1,087,455	\$ 1,049,507	\$ 1,057,172	\$ 1,136,314	\$ 1,313,244	\$ 1,321,102	\$ 1,449,663	\$ 1,108,552	\$ 941,779

Material Costs



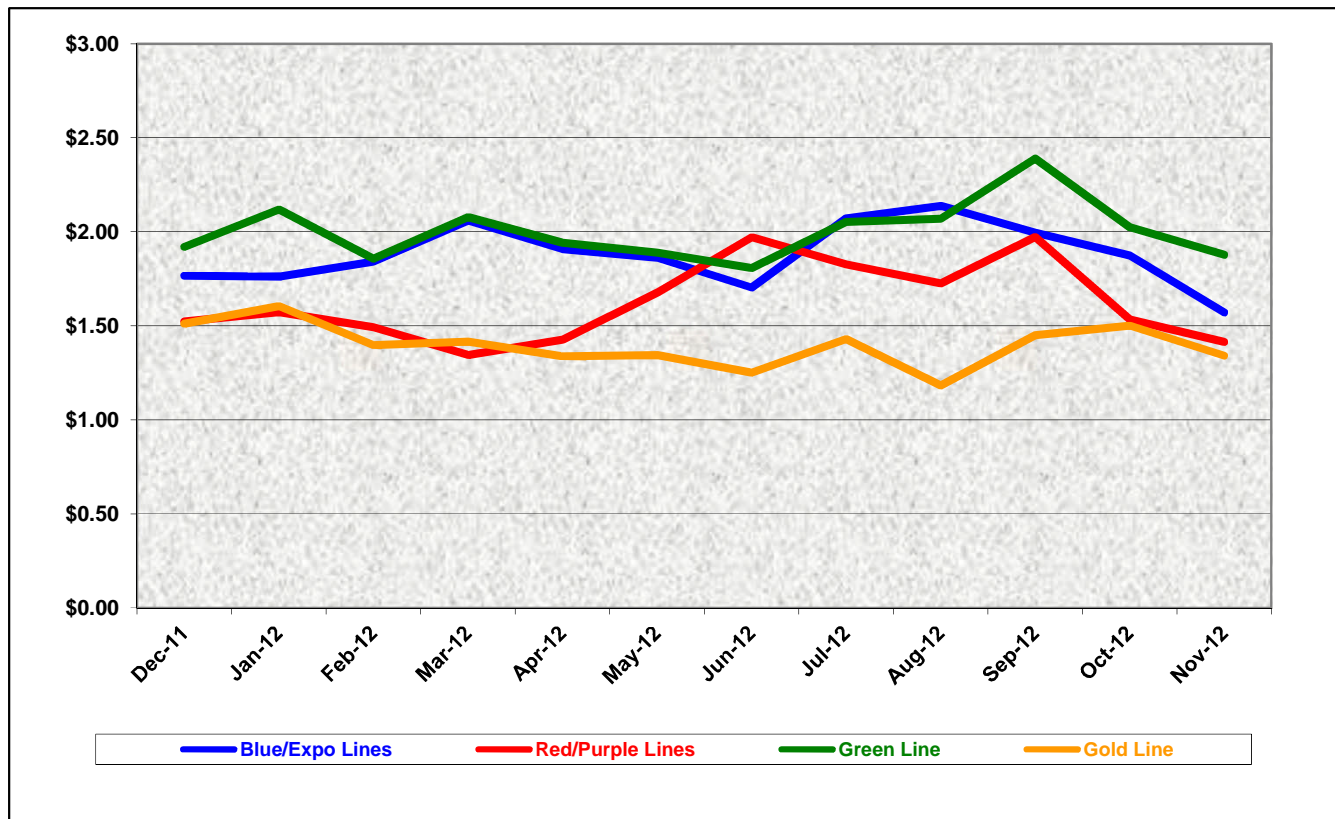
Labor Costs



LABOR	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Blue/Expo Lines	\$ 544,564	\$ 534,797	\$ 522,603	\$ 601,905	\$ 622,113	\$ 687,897	\$ 628,928	\$ 699,849	\$ 716,987	\$ 695,926	\$ 722,379	\$ 683,896
Red/Purple Lines	\$ 571,885	\$ 602,770	\$ 584,940	\$ 562,875	\$ 602,434	\$ 639,102	\$ 613,032	\$ 645,748	\$ 676,501	\$ 674,192	\$ 718,139	\$ 610,872
Green Line	\$ 259,198	\$ 262,563	\$ 241,042	\$ 278,653	\$ 253,643	\$ 293,492	\$ 251,094	\$ 286,110	\$ 304,066	\$ 304,487	\$ 309,399	\$ 258,637
Gold Line	\$ 276,926	\$ 321,152	\$ 267,372	\$ 277,944	\$ 276,975	\$ 290,375	\$ 264,536	\$ 296,565	\$ 296,078	\$ 286,489	\$ 318,284	\$ 272,259
Totals	\$1,652,573	\$1,721,282	\$1,615,957	\$1,721,377	\$1,755,165	\$1,910,866	\$1,757,590	\$1,928,272	\$1,993,632	\$1,961,094	\$2,068,201	\$1,825,664

# Cost Per Mile November 2012

Cost per mile:	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12
Blue/Expo Lines	\$1.77	\$1.76	\$1.84	\$2.06	\$1.91	\$1.86	\$1.70	\$2.07	\$2.14	\$1.99	\$1.87	\$1.57
Red/Purple Lines	\$1.52	\$1.57	\$1.49	\$1.35	\$1.43	\$1.68	\$1.97	\$1.83	\$1.73	\$1.97	\$1.53	\$1.41
Green Line	\$1.92	\$2.12	\$1.86	\$2.08	\$1.94	\$1.89	\$1.81	\$2.05	\$2.07	\$2.39	\$2.02	\$1.88
Gold Line	\$1.51	\$1.61	\$1.40	\$1.42	\$1.34	\$1.34	\$1.25	\$1.43	\$1.18	\$1.45	\$1.50	\$1.34





# ATU Absences vs. Overtime

## November 2012

ABSENCE TYPE and HOURS	3940 Admin.	3941 Blue	3942 Red	3943 Green	3944 Gold	3947 Expo	Total
BER-BEAVEMENT	0.00	80.00	0.00	24.00	0.00	0.00	104.00
CTO-COMPENSATORY TIME OFF	0.00	291.35	379.34	132.86	254.00	36.00	1,093.55
CUT-EMPLOYEE LEAVES EARLY	1.88	1.83	0.43	0.43	0.62	0.00	5.19
CVA - CASUAL VACATION	0.00	230.00	304.00	0.00	216.57	8.00	758.57
DSL-DISABILITY LEAVE/LONG	0.00	656.00	176.00	328.00	336.00	0.00	1,496.00
EFH-EMG. FLOAT HOL.	0.00	0.00	136.00	40.00	32.00	0.00	208.00
ETO-EXCUSED TIME OFF	7.50	42.43	34.44	5.50	39.42	0.50	129.79
FMI-FAM IND INJURY	0.00	24.00	48.00	0.00	176.00	0.00	248.00
FML-FAMILY CARE LEAVE	0.00	545.05	128.00	303.00	8.00	0.00	984.05
FMS-FAMILY LEAVE SICK	0.00	157.65	16.00	8.00	0.00	0.00	181.65
HLF-HOLIDAY FLOATING	8.00	376.00	264.00	72.00	152.00	8.00	880.00
HNP-HOLIDAY NOT PAID	0.00	8.00	0.00	32.00	8.00	0.00	48.00
HOL-HOLIDAY LEGAL	56.00	528.00	568.00	168.00	136.00	64.00	1,520.00
II-INDUSTRIAL INJURY	0.00	0.00	352.00	168.00	0.00	0.00	520.00
IIR-INDUS INJURY-REOCCUR.	0.00	176.00	0.00	0.00	0.00	0.00	176.00
JUR-JURY DUTY	0.00	8.00	0.00	0.00	8.00	0.00	16.00
LC1-LABOR CODE 233	0.00	80.00	125.59	56.00	48.00	24.00	333.59
OWP-OFF WITH PERMISSION	0.00	0.00	52.03	0.00	46.00	0.00	98.03
RTO-REQUESTED TIME OFF-NO PA	0.00	14.20	4.00	1.12	0.00	0.00	19.32
SCK-SICK PAY	0.00	144.00	161.27	132.00	40.00	0.00	477.27
SCW-SICK WITHOUT PAY	0.00	124.00	16.00	0.00	64.00	0.00	204.00
TAR-TARDY	0.88	1.04	2.21	1.22	0.12	0.05	5.52
VAC-VACATION	32.00	660.97	612.00	315.53	188.00	48.00	1,856.50
<b>Total Absence Hours</b>	<b>106</b>	<b>4,149</b>	<b>3,379</b>	<b>1,788</b>	<b>1,753</b>	<b>189</b>	<b>11,363</b>
ATU Number of Work Force (assigned)	7	121	110	46	46	8	338
Full Work Force hours/month	1,213	20,969	19,063	7,972	7,972	1,386	58,575
<b>Absence as a % of Work Force</b>	<b>9%</b>	<b>20%</b>	<b>18%</b>	<b>22%</b>	<b>22%</b>	<b>14%</b>	<b>19%</b>
<b>OVERTIME TYPE and HOURS</b>	<b>3940</b>	<b>3941</b>	<b>3942</b>	<b>3943</b>	<b>3944</b>	<b>3947</b>	<b>Total</b>
CTB-COMPENSATORY TIME TO BANK	30	188	176	22	61	11	488
OTP-PREM OVERTIME	580	4832	5005	1077	1335	136	12965
WLO-Worked Lunch Overtime	17	149	194	81	90	12	541
<b>Total</b>	<b>627</b>	<b>5169</b>	<b>5375</b>	<b>1180</b>	<b>1485</b>	<b>159</b>	<b>13993</b>
<b>Overtime as a % of Work Force</b>	<b>52%</b>	<b>25%</b>	<b>28%</b>	<b>15%</b>	<b>19%</b>	<b>11%</b>	<b>24%</b>
<b>UNCOVERED ABSENCES</b>	<b>3940</b>	<b>3941</b>	<b>3942</b>	<b>3943</b>	<b>3944</b>	<b>3947</b>	<b>Total</b>
Absences FTE	1	24	19	10	10	1	66
OTP FTE	4	30	31	7	9	1	81
<b>FTE Difference</b>	<b>-3</b>	<b>-6</b>	<b>-12</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>-15</b>

Note: Overtime also covers other required activities.



# Rail Vehicle Engineering Project Summary

## November 2012

Preparation of Engineering Technical Specifications	Tracking #	Status
Red Line AC Gear Box (Rev. 0)	A650/TS/026	IFB 12-0024 issued and schedule to close 01/11/2013
MBL Battery Set	P865/P2020/TS/069	Draft in review
Vital Relay Calibration P865/P2020	Sole Source	In Process by Procurement
Windows glass and rubber glazing specification	P865-P2020/TS-066	Released to Procurement for bid - In DEOD
Friction Brake Kit Less Air Compressor Overhaul	P2000/TS/035 Rev 0	Released to Procurement for bid - SS was signed - Going to December 13 Board for approval
A650 Battery Specification	A650/TS/39	Released to Procurement for bid - Hoppeke to deliver 1st article for testing and approval
Powered Axle Overhaul SOW	P865-P2020/TS/063 and 052	Released to Procurement for bid - In DEOD
Seat Insert	P865-P2020/TS/62	Released to Procurement - Awarded to Sardo -PO# SD259396 due end of December, 2013
Red Line DC Gear Box (Rev. 0)	P650/TS/040	Released to Procurement for bid - Dealing with Flender as OEM
Vandal Shield for all lines	A650-P865-P2000-P2550/TS/012	Competitive bid is on HOLD bending Flender resolution
Aux power supply equipment (APSE) - Static Inverter	P865-P2020/TS/065 Rev. 0 [2 Parts]	Released to Procurement- Contract awarded
Tire kit specification	P865-P2020/TS/064	Released to Procurement for bid - In DEOD
Red Line (Base Buy) DC Traction Motor	P650/TS/041	Released to Procurement for bid
MBL HVAC Compressor	P865/P2020/TS/067 Rev. 0	Released to Procurement - Bid is on Hold (Resin verification)
Head Sing LED	P2000/TS/xx	Released to Procurement for bid - Reply to Bid questions.
Chevron springs	P865/P2020/TS/068 Rev. 0	Draft in process
Filter-Fresh Air	P2550/TS/004	Released to Procurement for bid - IFB 13-0015 issued, Bid due on 01/23/2013
Filter-Return Air	P2550/TS/005	In review process
Chopper Air Filter	P865-P2020/TS/050	In review process
Motor Alternator Filter	P865-P2020/TS/051	Draft in review
Inverter Air Filter	A650/TS/036	Draft in review
General - All Lines		Status
Roadway Worker Protection		CPUC/Installing ProTran1 Device-P865/P2020/P2000 completed, A650/P2550 in installation
Fleet Failure Analysis		CH2M Hill - LTK
New Radios installed to replace old radios		Meeting 3/7/2012-Contract awarded, MBL and P2000 completed. A650 in installation process
Bike Space		P2550 in prototype completed.
St. Louis LRV		P2000/P2550/A650 Fleet modification completed.
		Testing flooring for fire rating - investigating computability.
P2000 Overhaul Program		Status
Mapping mainline		Conducted mapping the entire line in 2 weeks for ATP/ATO/TWC
Master Controller - Bombardier Refurbish		Ongoing Program
RSS and EOSS Bundle Cables/Connectors - Glenair		In Progress
CCH possible replacement (Focon)		Send information to Focon
TWC Calibration procedure.		Base Line data confirmed and existing TWC test equipment mapped for performance. Systra on board - TWC calibration procedures completed.
Speed Sensors		Testing new speed sensors from Smith System
Friction Brake failure investigation		Metro technical team with Wabtec (OEM) ongoing investigation.
P865/P2020 Program		Status
Remove the remotely reset CB1 Breaker		Fleet modification completed.
"G" force measurement on Transponder installed on P865/P2020		H&K installed "G" sensor on transponder and collected data for analysis - 03/08/12. New carbody mounted bracket were tested and completed fleet modification. New antennas are in installation progress.
Under seat - No motion relays		ABB Prototype installed on 07/24/12 for one month test period. Test was successful. In process of procuring kits.
Replace air compressor DC motor with AC motor		Knorr prototype on order - Due in October 2012 - Modifying 1 unit is in process by Knorr
ATP Antenna investigation		Survey 100% of the fleet - Recommend to replace all ATP antenna. Installed 2 each, new antennas on car 129 and 160. Data on 160 loop test was too high for series old new installation. ALSTOM did not release any antenna schematic or testing procedures.
Cardan Failure Investigation		Lab testing failed components and evaluate those in service - Kar's Lab



# Rail Vehicle Engineering Project Summary (cont'd)

## November 2012

A650 Overhaul Program		Status
Investigate car 505/506		Satatic test completed, dynamic yard test completed, mainline dynamic test scheduled the week of 12/10.
HPT Upgrade		Wabtec Proposal received. NTP issued 08/08/12. .One car set prototype in testing
ABI New Traction Motor Mount		ABI for Fleet Modification in progress. A total of seventy seven (88) trucks were completed.
Friction Brake Kit Overhaul		Overhaul program in place - Wabtec (30 Base cars were added and approved)
Ribbed Rubber Flooring PRF		Dealing with OEM - No bids received from others. Proceeding with PRF.
Door Operator Gearbox and Rollers Overhaul		In Progress - Buying kits from Vapor Stone to overhaul GB and motor in house.
H-4 electronic units		Unit upgrade - Fleet issues (Wabtec) to provide new unit proposal.
Base Buy DC fleet investigation		LJ-CH2M and engineering addressing PECE testing, Capacitors replacement, and modifying A17-A22-A23 boards. Field power supply calibration completed.
HVAC Evaporator AC motor/Inverter		Testing 1st article from Vapor Stone on one car.
Traction motor Blower- AC motor/Inverter		Testing 1st article from ATS on one car.
12 GTO (6 GTO+ and 6 GTO-) will be bench tested and installed on the train for dynamic testing.		In progress
P2550		Status
Vehicle Acceptance		Fifty cars have been Final Accepted.
3P Flip Up Seat Finger Guard		Submitted SS to Procurement - Testori - 1st prototype received and requires modification.
Find alternative Vendor for Reverse Engineer PCB Boards P2550		In Progress
Compressor Desiccant Material		In Progress
Rubber Boots (High Voltage )		In Progress - Vulcanite. Bought from OEM through A&E Telecom.
Cyclope light and Destination Sign Glass		In Progress - NASG
Ground Brush Schunk (Lamellar Seal failure investigation)		Awaiting ABI/Schunk final update.
HVAC investigation		Water drain and smoking filter issues
Lateral shock absorber		Investigating the failure of the resilient bushing.
Expo		Status
P2000 Couple/un-couple issues		Investigation completed - Test was successful - Fleet modification in process.
Mapping entire MBL and Expo line		Mapped entire MBL and Expo line ATP/ATO/Line voltage/ track signals.
Junction of Blue line and Expo line Testing - ATP		Testing indicated signal track problem at Culver City. Wayside are recertify track circuits. Testing completed on 10/18/12 indicated track circuit installation problem. GE investigating.
35 Cab Flips @ Culver City Platform and La Cianega Interlocking		Coordinate with Wayside to resolve the problems. GE vendor get involved to resolve a system design problem on E2C. (diode vs. no diode) Latest updated from BNC: No Diode for EXPO. Awaiting GE&BNC completion to finalize this issue.

# P2550 Vehicle Acceptance Program

## November 2012

### **Vehicle Status Update:**

- Project staff working with AB to close out open items.
- AB performing ATP-by pass switch modification. To date, 33 cars completed.

### **Engineering Activities Update:**

- Event recorder: Configuration finalized and event recorders activated. Software revision being installed for final qualification. 44 cars completed.
- ATP/TWC Configuration: Testing system to finalize resolution. A-STS continues to test software / wiring remedies.

### **Project Management:**

- Contract spares continue to be delivered to Metro and estimated to be 90% complete. All parts needed for day-to-day maintenance have been received. Critical parts needed for heavy repairs are beginning to arrive.
- Daily and bi-weekly meetings are scheduled with contractor management to address project issues.

# QA-Warranty Program Projects Summary

## November 2012

### QA-WARRANTY ACTIVITIES

- On-Going, P2550 Car Mod Campaign / Testing Oversight, Component Reliability Trend Tracking
- On-Going, P2550 parts tracking: Contract Spares, Capital Spares, Warranty Spares & Metro Loaned Parts. Loaned parts turn-over in progress.
- On-Going, P2550 Warranty Claims Processing
- A650 Base Buy & Option Car Fleet Warranty Truck Frame Mod Campaign (55 of 220 Trucks modified to date). MRL Warranty Cost Avoidance savings accrued to date \$407,798.56.
- On-Going, Management's Special Interest Articulation / Cab Wiring Tightness Checks MBL & MGL P2000 Fleet Cars (34 of 52 completed). 9/25/12 Management decision to suspend Wire Tightness Inspections for the remainder of the 2000 fleet. (Mgt discontinued program)
- On-Going, Management's Special Interest 7.5K Supplemental Inspections & Articulation MBL & MGL P2000 Fleet Cars (46 of 52 completed)
- Special Interest CCTV Camera operational function inspections MRL (104 of 104 cars completed), MBL (44 of 92 cars completed), MGL (3 of 26 completed), MGD (50 of 50 cars completed)
- QA PMI Audits, Spot Checks & Surprise/Unannounced Audits performed (25)
- FAI's or equipment inspection/failure investigations (18)
- QA oversight, MBL & MGL Fleets, (25 of 92 LRV's) Truck Inspections, Journal Bearing Housing Inspections, Damper Inspections, Wheel Back-to-Back Measurements, Wheel Flange Measurements, Wheel Residual Mount Inspections.
- On-Going Warranty-QA interest oversight & tracking: Overhauls / Mod Programs, (A650/P2000/P2020/865/P2550) Propulsion System, Master Controllers, Capacitor Banks, Air Compressors, Aux Power, Couplers, Gearboxes, Articulation Diaphragms, Friction Brakes, HPT's, Brake Resistor Grids, T/M's, MA's, HVAC, Doors, A/C Motors – (Blowers & Evaporators)

# RFS Instruction Department Activities

## November 2012

### Training classes completed during the month of November 2012

Description	Course Hours	Student Count	Training Hours
<b><u>Blue &amp; Expo Line Training - (P865/2020 &amp; P2000 LRV):</u></b>			
RFS HEGENSCHIEDT WHEEL TRUE	40	3	120
RFS SIEMENS 2000 DOOR CONTROLS	40	10	400
<b>Total Blue Line Training (Hours):</b>			<b>520</b>

<b><u>Red Line Training (Breda A650 HRV):</u></b>			
RFS BRED A 650 MTO SYSTEMS	24	1	24
RFS BRED A 650 COUPLER	8	7	56
RFS BRED A 650 TRANSRAIL LVPS	16	7	112
RFS BRED A 650 PROPULSION GE	40	7	280
<b>Total Red Line Training (Hours):</b>			<b>472</b>

**Total RFS Instruction for the month of November 2012 (Hours):** **992**

### **Other Instruction Activities**

Train-the-Trainer class at LATTC	120
Instr. VAC & HOL	120
A650 & P2000 Vehicle Course Preparation	80

**Total Other Instruction Activities** **240.0**

**Core Vehicle Training Completed:** **BLUE** **RED** **GREEN** **GOLD**

**Percentage of core vehicle training complete:** **76.4%** **91.3%** **83.8%** **83.8%**  
**Siemens P2000 training complete:** **45.3%** **N/A** **N/A** **N/A**

**Average Specialist Rail Experience Level in Years:** **10.8** **10.2** **9.0** **10.0**

### **Core Training Completed**

