



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

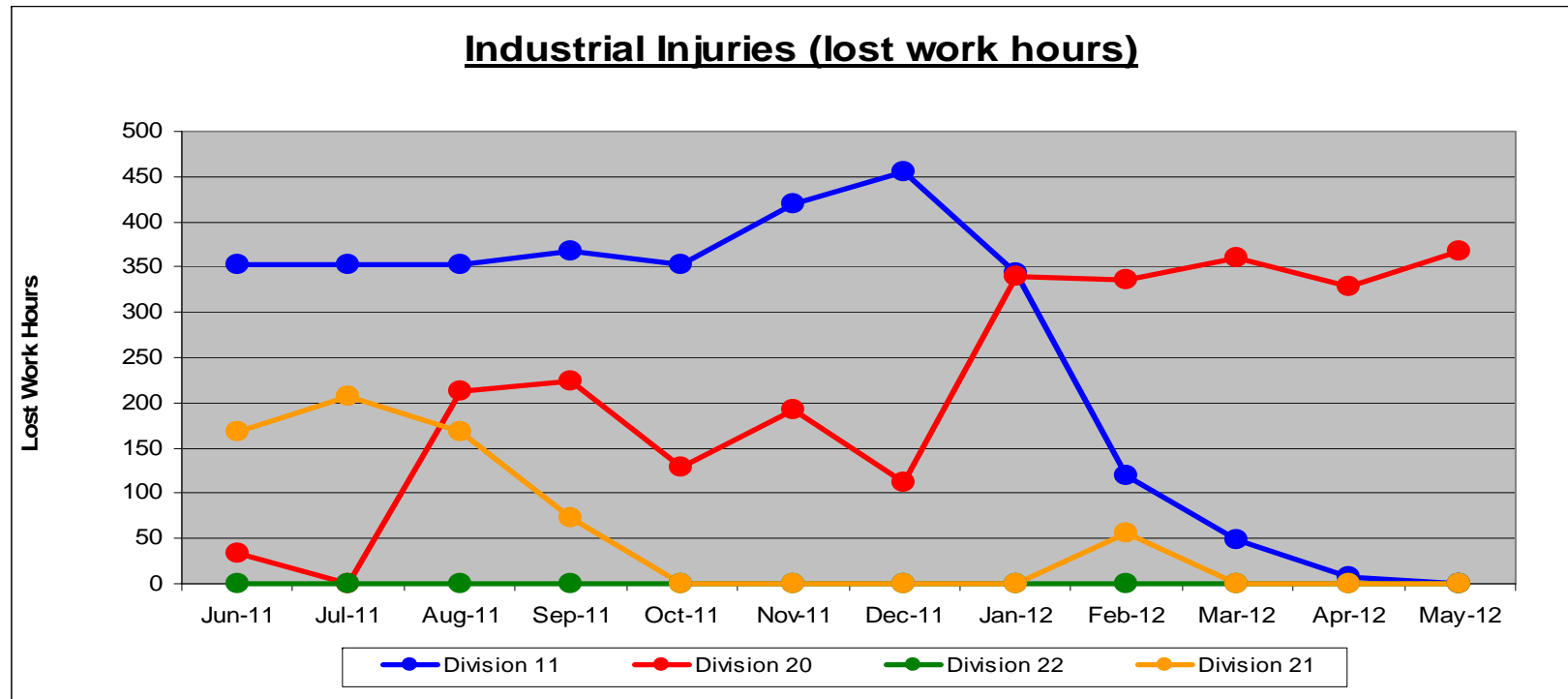


**Metro**

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# Industrial Injuries – Lost Work Hours May 2012



	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Year to Date
Division 11	352	352	352	368	352	420	456	344	120	49	8	0	3,173
Division 20	34	0	213	224	128	192	112	340	336	360	328	368	2,635
Division 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Division 21	168	208	168	72	0	0	0	0	56	0	0	0	672
Totals	554	560	733	664	480	612	568	684	512	409	336	368	6,480

# Rail Vehicle Accidents & Major Incidents

## May 2012

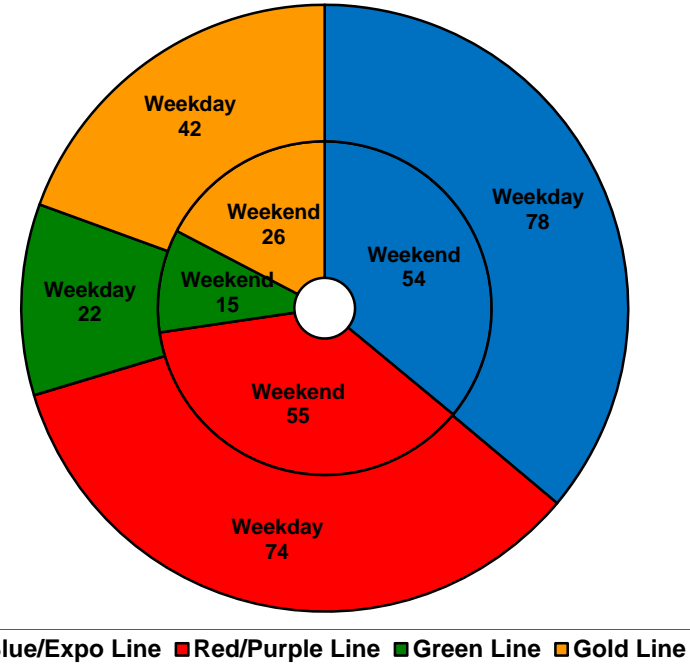
Repair Costs	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Totals
Blue/Expo Lines	\$189	\$0	\$395	\$7,337	\$888	\$16,188	\$1,199	\$4,704	\$5,087	\$18,570	\$2,675	\$1,718	\$58,950
Red/Purple Lines	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,115	\$571	\$1,686
Green Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$989	\$0	\$989
Gold Line	\$5,458	\$3,763	\$2,567	\$0	\$320	\$0	\$0	\$0	\$0	\$4,134	\$0	\$0	\$16,242
Totals	\$5,647	\$3,763	\$2,962	\$7,337	\$1,208	\$16,188	\$1,199	\$4,704	\$5,087	\$22,704	\$4,779	\$2,289	\$77,867

Rail Vehicle Accident Costs - May 2012				
Metro Blue Main Line				
Date	Incident #	Problem code	Incident Description	Cost
5/4/2012	2174739	Train vs. Pedestrian	A 10-72 was reported at Pacific Station involving Cars 136, 135, and 148.	\$1,227.00
5/7/2012	2175928	Train vs. Object	A 10-71 was reported with a bicycle and Train 18.	\$302.00
5/20/2012	2181461	Train vs. Object	A 10-71 was reported at Wardlow Road when train struck a broken crossing gate arm going northbound.	\$189.00
				<b>1,718.00</b>
Metro Gold Line				
5/1/2012	2173649	Train vs. Pedestrian	A 10-72 was reported at the Union Station when a pedestrian was stuck by train's outside mirror on the platform.	\$0.00
				<b>\$0.00</b>
Metro Red Line				
5/9/2012	2176452	Derailment	A 10-75 occurred with a high rail vehicle at North Hollywood pocket track.	\$571.00
				<b>\$571.00</b>
GRAND TOTAL				<b>\$2,289.00</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 May 2012

<b>Blue/Expo Line Fleet Size:</b>		<b>92</b>	
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	78	80	103%
Weekend:	54	66	122%
Late Pullouts: 2 *			
Monthly Mileage:	623,471		
<b>Red/Purple Line Fleet Size:</b>		<b>104</b>	
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	74	83	112%
Weekend:	55	65	118%
Late Pullouts: 0 *			
Monthly Mileage:	581,546		
<b>Green Line Fleet Size:</b>		<b>29</b>	
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	22	24	109%
Weekend:	15	18	117%
Late Pullouts: 1 *			
Monthly Mileage:	234,497		

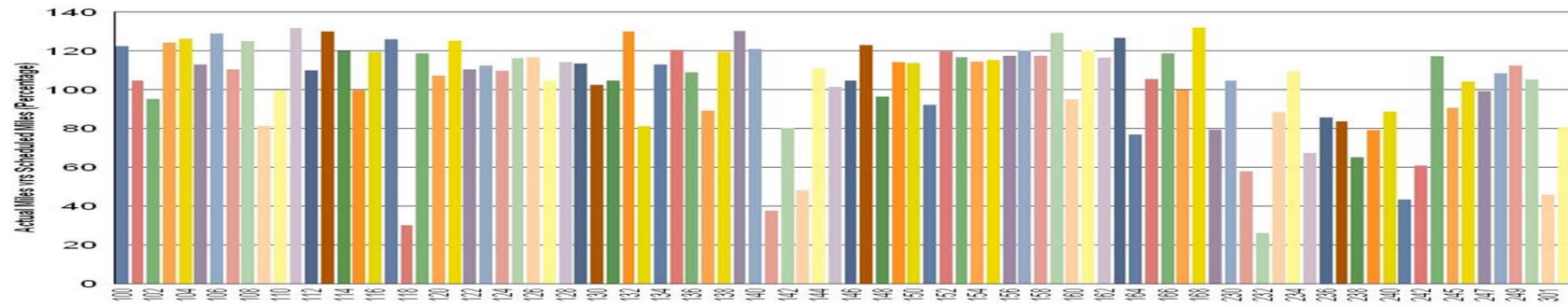
\* Due to a vehicle related problem



<b>Gold Line Fleet Size: 48</b>			
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	42	42	100%
Weekend:	26	38	145%
Late Pullouts: 0 *			
Monthly Mileage:	289,091		

# Vehicle Utilization May 2012

**Metro Blue/Expo Line Fleet**



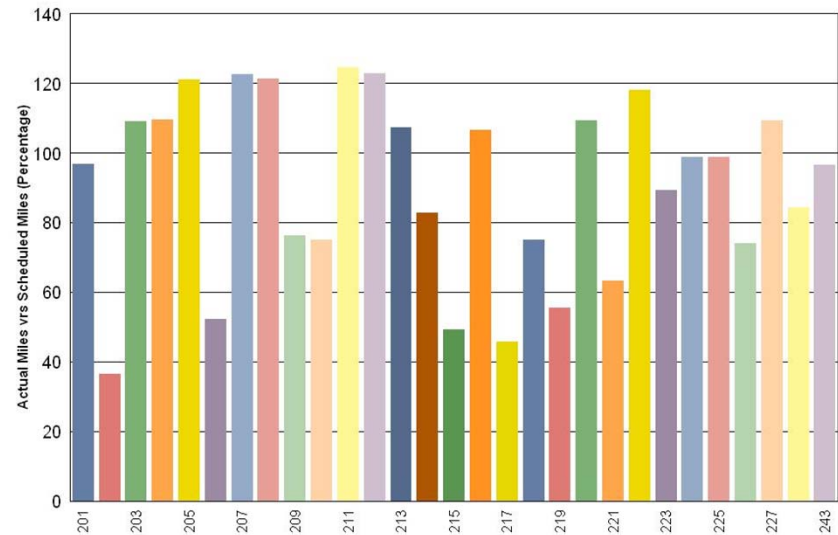
## Blue/Expo Lines:

- 118 Vehicle out of service due to projects and ATP failures.
- 141 Vehicle out of service due to projects, ATP, and propulsion failures.
- 232 Vehicle is out of service due to troubleshooting of propulsion failures.

## Green Line:

- 202 Vehicle out of service due to troubleshooting, propulsion repairs, and major inspections.

**Metro Green Line**



# Vehicle Utilization May 2012

## Red/Purple Lines:

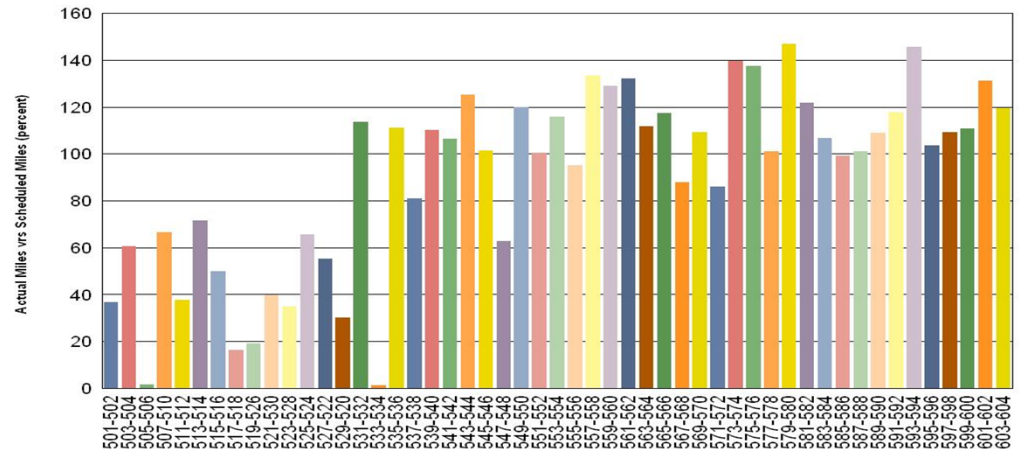
Explanation for under-used vehicles:

- 501-502** Vehicle underutilized by Transportation in the month of May.
- 505-506** Vehicle continues to be mainline tested to accumulate additional mileage. To date, vehicle has accumulated 418 miles without any failures.
- 517-518** Vehicle out of service due to friction brake overhaul and field power supply calibration testing.
- 519-526** Vehicle out of service due to 90k inspection and numerous open work orders resulting from PM inspections.
- 523-528** Vehicle failures due to multiple friction brake and HVAC failures on both cars and awaiting gearbox delivery to mitigate problems.
- 529-520** Vehicle out of service due to open work orders from mainline incidents.
- 533-534** Vehicle out of service since 5/9/12. Staff has been addressing the voltage drop when the vehicle powers through a gap. Staff has requested engineering support on this issue.

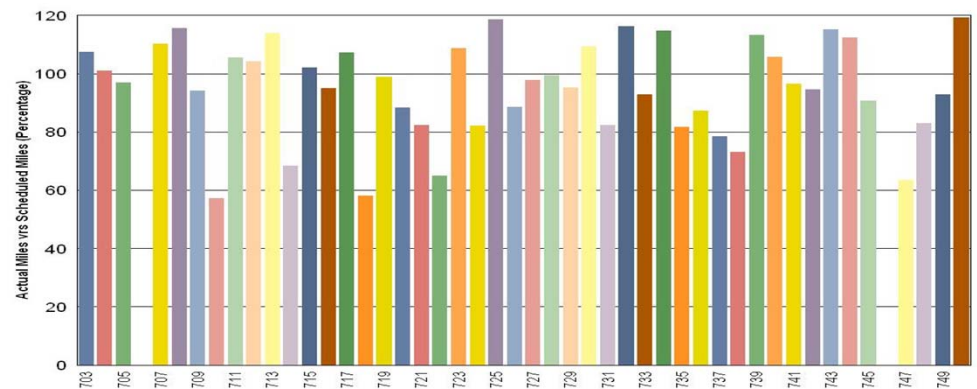
## Gold Line:

- 706** Vehicle remains out of service and is awaiting parts delivery for repairs and inspection.
- 746** Vehicle remains out of service and is awaiting parts delivery for repairs and inspection.

## Metro Red/Purple Lines

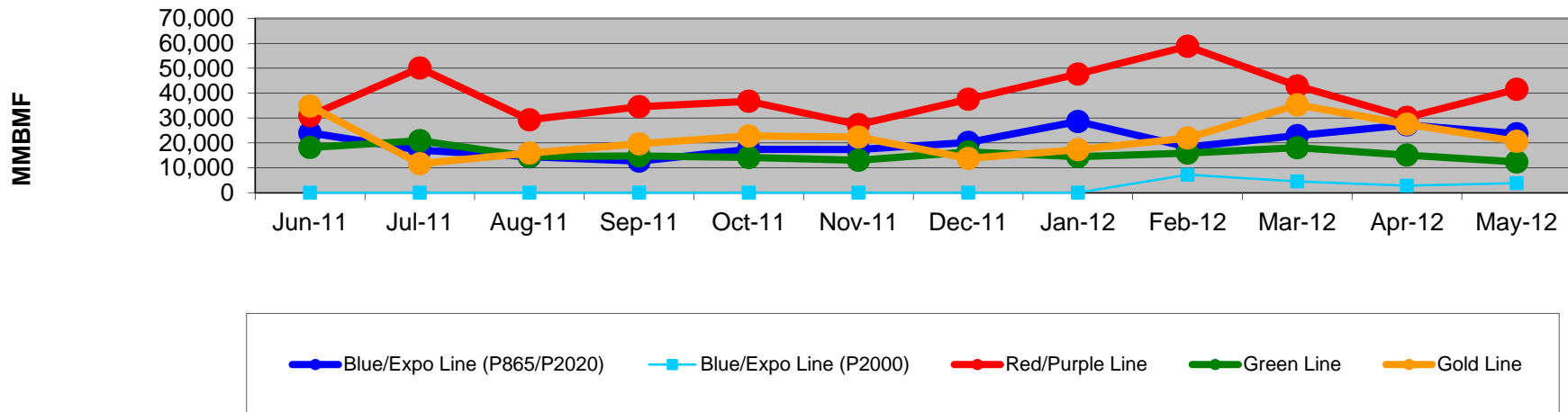


## Metro Gold Line



# Mean Miles Between Failures (Major) Year to Date

## Mean Miles Between Major Failures (12 months)

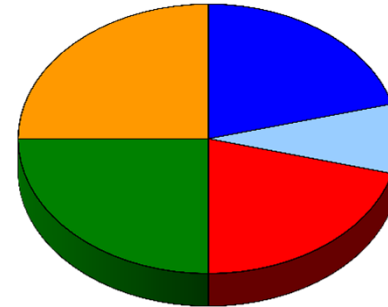


	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
Blue/Expo Line (P865/P2020)	24,050	17,123	14,425	12,679	17,397	17,322	20,187	28,614	18,322	22,943	27,235	23,678
Blue/Expo Line (P2000)	0	0	0	0	0	0	0	0	7,210	4,520	2,809	3,825
Red/Purple Line	30,932	50,099	29,298	34,535	36,745	27,358	37,551	47,660	58,828	42,883	30,255	41,539
Green Line	18,177	20,877	14,482	14,740	14,148	13,029	16,379	14,448	15,895	18,092	15,108	12,342
Gold Line	34,792	11,668	15,906	19,647	22,773	22,340	13,743	17,298	21,981	35,279	27,526	20,649



# Repeat Failures May 2012

Metro Blue Line: 5 Repeat Failures  
 Expo Line: 2 Repeat Failures  
 Metro Red Line: 5 Repeat Failures  
 Metro Green Line: 6 Repeat Failures  
 Metro Gold Line: 6 Repeat Failures



■ Blue Line    ■ Expo Line    ■ Red Line  
 ■ Green Line    ■ Gold Line

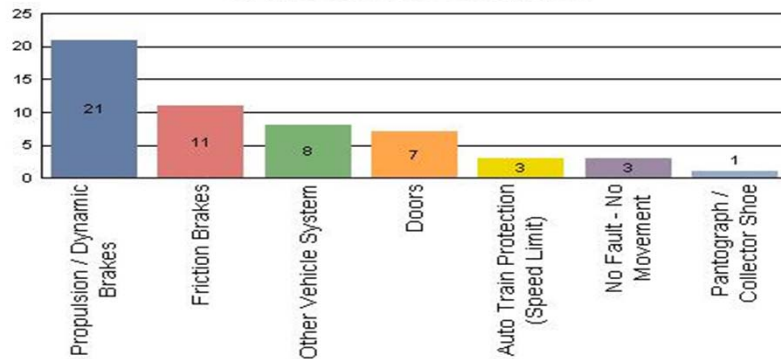
Repeater Car Details - May 2012										
System	Blue Line		Expo Line		Red Line		Green Line		Gold Line	
	Car #	Repeats	Car #	Repeats	Car #	Repeats	Car #	Repeats	Car #	Repeats
ATP	242	1	108	2	521	1			722	2
									724	1
Doors					547	1			747	2
Friction Brakes	301	1			523	1				
					567	1				
HSCB Trip					503	1				
HVAC	302	1					210	1		
							218	1		
Propulsion/Dynamic Brake	160	1					210	4	718	1
Radio	100	1								
TOTALS	5		2		5		6		6	

*Repeat Failure: When a train car has three or more repeat problems/failures.*

# Major Incidents May 2012

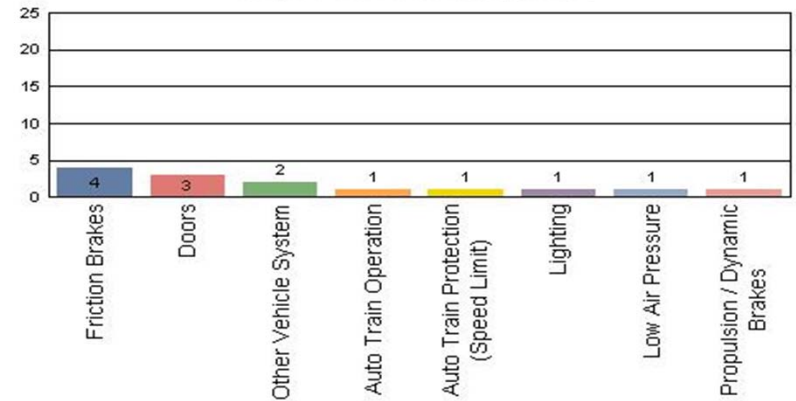
## Metro Blue/Expo Line

Top Incident Categories



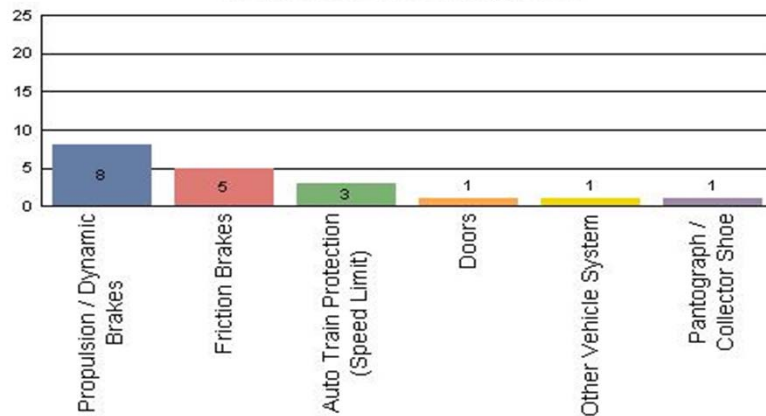
## Metro Red/Purple Line

Top Incident Categories



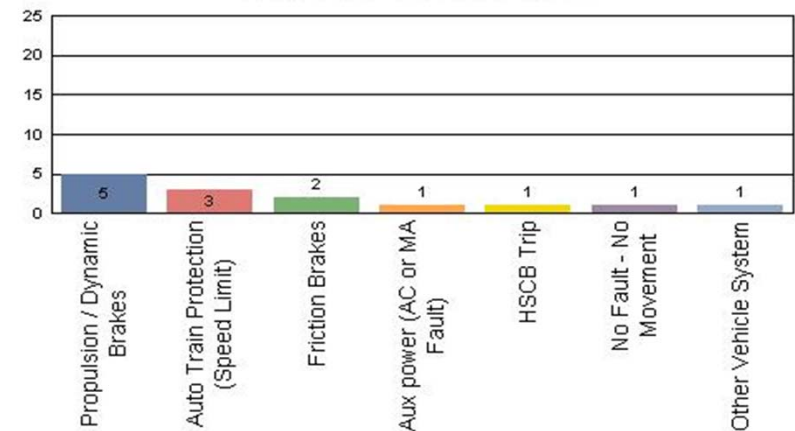
## Metro Green Line

Top Incident Categories



## Metro Gold Line

Top Incident Categories



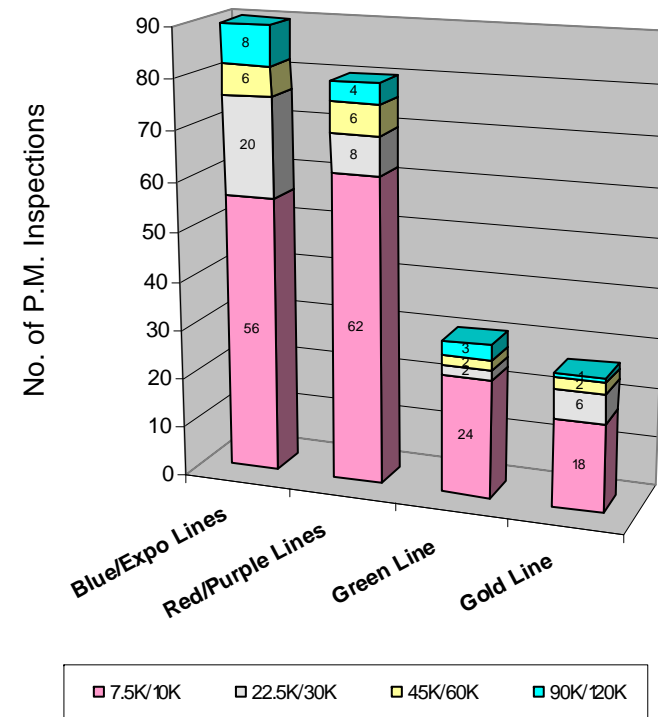
# Preventive Maintenance Compliance

## May 2012

PM Compliance	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-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%	100%	100%	100%	100%
Green Line	100%	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%

May 2012 Preventive Maintenance Inspections

No. of P.M. Inspections	7.5K/10K	22.5K/30K	45K/60K	90K/120K	Totals
Blue/Expo Lines	56	20	6	8	90
Red/Purple Lines	62	8	6	4	80
Green Line	24	2	2	3	31
Gold Line	18	6	2	1	27
Totals:	160	36	16	16	228

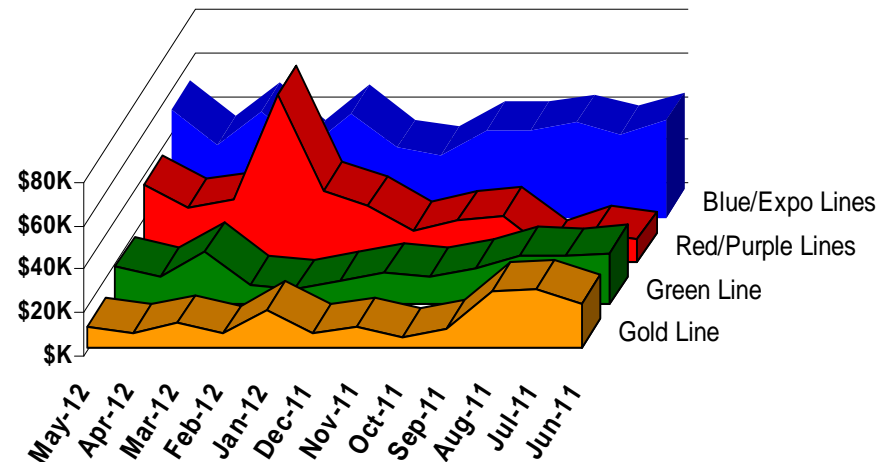


# Vandalism & Graffiti Report

## May 2012

	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Year-to-Date
Blue/Expo Lines	\$45K	\$39K	\$44K	\$41K	\$41K	\$29K	\$33K	\$49K	\$32K	\$49K	\$34K	\$50K	\$486K
Red/Purple Lines	\$10K	\$13K	\$6K	\$21K	\$20K	\$14K	\$26K	\$33K	\$77K	\$28K	\$25K	\$35K	\$309K
Green Line	\$24K	\$22K	\$23K	\$17K	\$13K	\$15K	\$11K	\$8K	\$9K	\$25K	\$13K	\$18K	\$199K
Gold Line	\$21K	\$28K	\$26K	\$9K	\$5K	\$10K	\$7K	\$18K	\$7K	\$11K	\$7K	\$10K	\$159K
Totals:	\$100K	\$102K	\$99K	\$89K	\$78K	\$69K	\$77K	\$107K	\$125K	\$114K	\$79K	\$113K	\$1,153K

May 2012 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows replaced	65	\$10,836	\$11,579	\$22,415
Vandal Shields	788	\$23,482	\$8,265	\$31,747
Seats Cleaned	799	\$2,041	\$0	\$2,041
Seats Replaced	247	\$7,782	\$6,246	\$14,028
Graffiti removal - other	657	\$20,910	\$547	\$21,457
Repainting panels	7	\$19,588	\$2,052	\$21,640
Totals	2,563	\$84,639	\$28,689	\$113,328



# Graffiti Pictures May 2012

Blue Line



Green Line



Gold Line

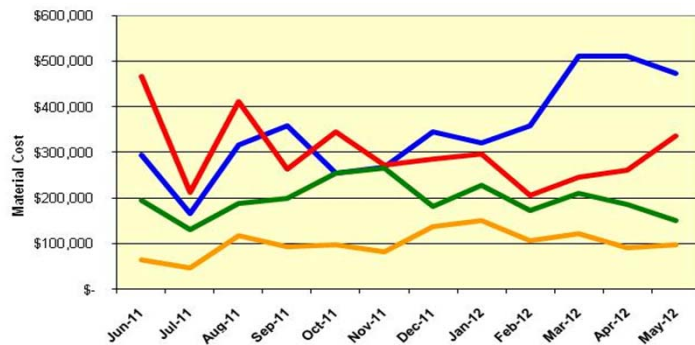


# Material and Labor Costs

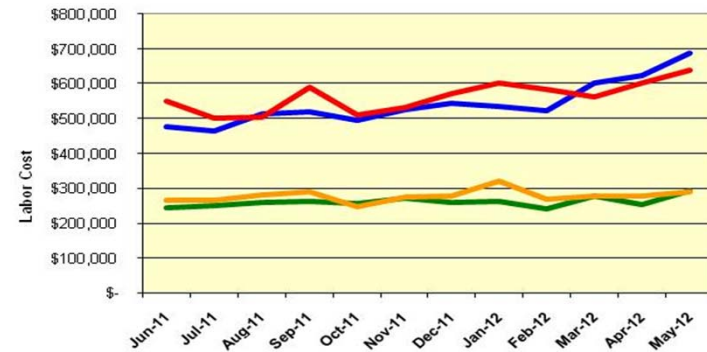
## May 2012

MATERIALS	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
Blue/Expo Lines	\$ 294,179	\$ 167,328	\$ 318,296	\$ 359,508	\$ 256,152	\$ 268,760	\$ 346,891	\$ 322,169	\$ 359,911	\$ 510,512	\$ 511,185	\$ 473,281
Red/Purple Lines	\$ 466,346	\$ 212,074	\$ 410,299	\$ 263,808	\$ 344,563	\$ 272,291	\$ 285,916	\$ 296,353	\$ 205,225	\$ 244,902	\$ 260,532	\$ 335,824
Green Line	\$ 194,750	\$ 129,976	\$ 187,997	\$ 198,811	\$ 254,691	\$ 265,489	\$ 180,929	\$ 227,110	\$ 172,152	\$ 210,220	\$ 186,572	\$ 149,660
Gold Line	\$ 64,397	\$ 47,760	\$ 118,401	\$ 94,967	\$ 98,380	\$ 83,425	\$ 138,599	\$ 150,971	\$ 106,736	\$ 121,821	\$ 91,218	\$ 98,407
Totals	\$ 1,019,672	\$ 557,138	\$ 1,034,993	\$ 917,095	\$ 953,786	\$ 889,965	\$ 952,335	\$ 996,603	\$ 844,024	\$ 1,087,455	\$ 1,049,507	\$ 1,057,172

**Material Costs**



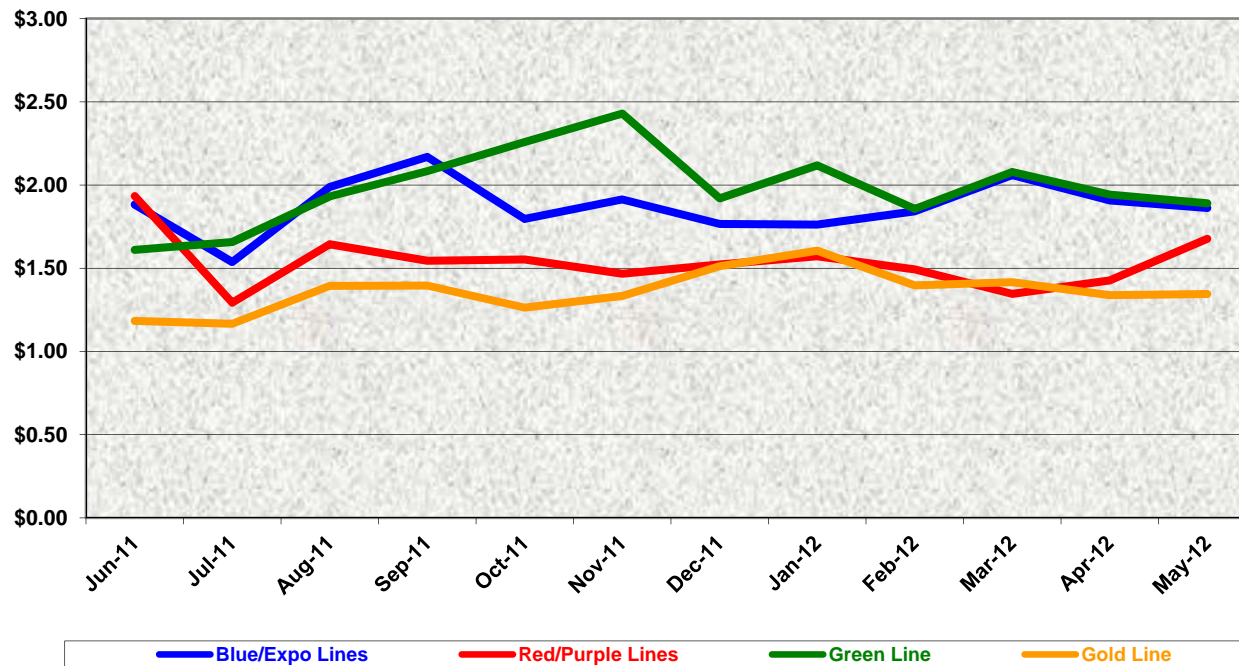
**Labor Costs**



LABOR	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12
Blue/Expo Lines	\$ 475,354	\$ 464,468	\$ 513,406	\$ 520,526	\$ 493,739	\$ 526,600	\$ 544,564	\$ 534,797	\$ 522,603	\$ 601,905	\$ 622,113	\$ 687,897
Red/Purple Lines	\$ 550,464	\$ 500,504	\$ 504,785	\$ 589,986	\$ 510,944	\$ 530,408	\$ 571,885	\$ 602,770	\$ 584,940	\$ 562,875	\$ 602,434	\$ 639,102
Green Line	\$ 243,969	\$ 250,617	\$ 259,629	\$ 261,796	\$ 256,610	\$ 272,603	\$ 259,198	\$ 262,563	\$ 241,042	\$ 278,653	\$ 253,643	\$ 293,492
Gold Line	\$ 264,854	\$ 265,256	\$ 280,715	\$ 289,048	\$ 246,890	\$ 274,017	\$ 276,926	\$ 321,152	\$ 267,372	\$ 277,944	\$ 276,975	\$ 290,375
Totals	\$ 1,534,641	\$ 1,480,845	\$ 1,558,535	\$ 1,661,357	\$ 1,508,183	\$ 1,603,628	\$ 1,652,573	\$ 1,721,282	\$ 1,615,957	\$ 1,721,377	\$ 1,755,165	\$ 1,910,866

# Cost Per Mile May 2012

Cost per mile:	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Average
Blue/Expo Lines	\$1.88	\$1.54	\$1.99	\$2.17	\$1.80	\$1.91	\$1.77	\$1.76	\$1.84	\$2.06	\$1.91	\$1.86	\$1.87
Red/Purple Lines	\$1.93	\$1.29	\$1.64	\$1.55	\$1.55	\$1.47	\$1.52	\$1.57	\$1.49	\$1.35	\$1.43	\$1.68	\$1.54
Green Line	\$1.61	\$1.66	\$1.93	\$2.08	\$2.26	\$2.43	\$1.92	\$2.12	\$1.86	\$2.08	\$1.94	\$1.89	\$1.98
Gold Line	\$1.18	\$1.17	\$1.39	\$1.40	\$1.26	\$1.33	\$1.51	\$1.61	\$1.40	\$1.42	\$1.34	\$1.34	\$1.36



No facility costs are included

# Absences vs. Overtime

## May 2012

ABSENCE TYPE and HOURS	3940 Admin.	3941 Blue	3942 Red	3943 Green	3944 Gold	3947 Expo	Total
AWP-ABSENT W/O PERMISSION	0.00	24.00	0.00	24.00	72.00	0.00	120.00
BER-BEAVEMENT	0.00	16.00	24.00	40.00	32.00	0.00	112.00
CTO-COMPENSATORY TIME OFF	0.00	358.75	665.09	135.93	291.50	16.00	1,467.27
CUT-EMPLOYEE LEAVES EARLY	6.00	3.10	0.02	0.00	0.32	0.00	9.44
CVA - CASUAL VACATION	0.00	64.00	664.00	0.00	88.00	0.00	816.00
DSL-DISABILITY LEAVE/LONG	104.00	864.00	368.00	0.00	208.00	0.00	1,544.00
EFH-EMG. FLOAT HOL.	0.00	0.00	168.00	72.00	8.00	0.00	248.00
ETO-EXCUSED TIME OFF	23.50	64.51	29.75	3.50	31.59	5.50	158.35
FMI-FAM IND INJURY	0.00	8.00	0.00	0.00	0.00	0.00	8.00
FML-FAMILY CARE LEAVE	80.00	136.00	120.00	215.00	304.00	0.00	855.00
FMS-FAMILY LEAVE SICK	0.00	0.00	60.80	46.40	144.00	0.00	251.20
HLF-HOLIDAY FLOATING	40.00	480.00	522.00	134.00	128.00	0.00	1,304.00
HNP-HOLIDAY NOT PAID	0.00	8.00	0.00	24.00	40.00	0.00	72.00
HOL-HOLIDAY LEGAL	80.00	464.00	520.00	152.00	104.00	32.00	1,352.00
II-INDUSTRIAL INJURY	0.00	0.00	368.00	0.00	0.00	0.00	368.00
JUR-JURY DUTY	0.00	0.00	8.00	0.00	0.00	0.00	8.00
LC1-LABOR CODE 233	24.00	275.00	260.36	96.00	96.00	0.00	751.36
MLN-MILITARY ABSENCE-UNPAID	0.00	0.00	152.00	0.00	0.00	0.00	152.00
OWP-OFF WITH PERMISSION	0.00	0.00	24.39	0.00	1.00	0.00	25.39
RTO-REQUESTED TIME OFF-NO PA	0.00	63.50	0.00	43.47	0.00	0.00	106.97
SCK-SICK PAY	8.00	148.00	172.90	56.00	182.00	0.00	566.90
SCW-SICK WITHOUT PAY	0.00	88.00	16.00	136.00	104.00	0.00	344.00
TAR-TARDY	0.00	2.08	1.39	2.14	0.40	0.00	6.01
UB-UNION BUSINESS	0.00	0.00	0.00	24.00	0.00	0.00	24.00
VAC-VACATION	92.00	1,102.00	578.00	493.50	389.00	0.00	2,654.50
VAC-VACATION WHILE SICK	10.80	0.00	0.00	0.00	0.00	0.00	10.80
<b>Total Absence Hours</b>	<b>468</b>	<b>4,169</b>	<b>4,723</b>	<b>1,698</b>	<b>2,224</b>	<b>54</b>	<b>13,335</b>
Number of Work Force (assigned)	34	118	113	48	50	5	368
Full Work Force hours/month	5,892	20,449	19,583	8,318	8,665	867	63,774
<b>Absence as a % of Work Force</b>	<b>8%</b>	<b>20%</b>	<b>24%</b>	<b>20%</b>	<b>26%</b>	<b>6%</b>	<b>21%</b>
OVERTIME TYPE and HOURS	3940	3941	3942	3943	3944	3947	Total
CTB-COMPENSATORY TIME TO BAN	0	39	8	17	10	12	86
OTP-PREM OVERTIME	763	4368	3914	1105	1238	109	11495
WLO-Worked Lunch Overtime	0	105	182	72	90	0	448
<b>Total</b>	<b>763</b>	<b>4512</b>	<b>4104</b>	<b>1194</b>	<b>1338</b>	<b>121</b>	<b>12030</b>
<b>Overtime as a % of Work Force</b>	<b>13%</b>	<b>22%</b>	<b>21%</b>	<b>14%</b>	<b>15%</b>	<b>14%</b>	<b>19%</b>
UNCOVERED ABSENCES	3940	3941	3942	3943	3944	3947	Total
Absences FTE	3	24	27	10	13	0	77
OTP FTE	4	26	24	7	8	1	69
<b>FTE Difference</b>	<b>-1</b>	<b>-2</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>-1</b>	<b>8</b>





# Rail Vehicle Engineering Project Summary

## May 2012

Powered Axle Overhaul SOW	P865-P2020/TS/xx	Received Draft from CH2m and in editing Progress
Seat Insert	P865-P2020/TS/62	Released to Procurement for bid
Red Line DC Gear Box (Rev. 0)	P650/TS/040	Released to Procurement for bid
Vandal Shield for all lines	A650-P865-P2000-P2550/TS/012	Released to Procurement for bid
Aux power supply equipment (APSE) - Static Inverter	P865-P2020/TS/xx	Review by Metro - CH2M to submit final
Tire kit specification	P865-P2020/TS/xx	Draft in process
HVAC Compressor Overhaul	P865-P2020/TS/xx	Draft Received from CH2M
Red Line (Base Buy) DC Traction Motor	P650/TS/041	Final Review and Edit in Progress
<b>General - All Lines</b>		<b>Status</b>
Roadway Worker Protection		CPUC/Installing ProTran1 Device-P865/P2020/P2000/P2550 completed, A650 in process
New Radios installed to replace old radios		Meeting 3/7/2012-Contract awarded, prototype by mid April.
Bike Space		P2000/P2550/A650 Fleet modification completed. P865 On Hold.
<b>P2000 Overhaul Program</b>		<b>Status</b>
Master Controller - Bombardier Refurbish		Ongoing Program
Wheel flats		LB Foster prototype, Gill applicator -Test Completed.
New LED Destination Signs		Luminator Prototype approved - In process of developing spec for bid. Color LED for P865 and P2000 in progress.
RSS and EOSS Bundle Cables/Connectors - Glenair		In Progress
Handicap Seat Modification using Velcro		In Progress
CCH possible replacement (Focon)		Send information to Focon
<b>P865/P2020 Program</b>		<b>Status</b>
Static Inverter - Transtechnik		Inverter running in revenue service for testing - No issues
Remotely reset CB1 Breaker		Prototype was successfully tested. Procuring parts for fleet modification.
"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 in process for fleet modification.
<b>P3010</b>		<b>Status</b>
78 New Light Rail Vehicle		Solicitation completed
<b>P2000 Gold to Green</b>		<b>Status</b>
Signal package conversion (Gold to green)		On-hold
<b>A650 Overhaul Program</b>		<b>Status</b>
Midlife Overhaul Specification		Draft complete by Metro. In process of Consultant selection to complete.
HPT Upgrade		Wabtec Proposal received - Production run prototype by mid July
AB New Traction Motor Mount		AB for Fleet Modification in progress. A total of sixty (65) 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 - Sample received
Door Operator Gearbox and Rollers Overhaul		In Progress - Vapor procedures received
H-4 electronic units		Unit upgrade - Fleet issues (Wabtec)
<b>P2550</b>		<b>Status</b>
Vehicle Acceptance		Forty eight cars have been Final Accepted. Car 701 in commissioning - 702 is scheduled for 06/15/12 delivery.
Gearbox Seepage/Leakage investigation		Set-up new O-ring part number in M3
3P Flip Up Seat Finger Guard		Submitted SS to Procurement - Testori
Find alternative Vendor for Reverse Engineer PCB Boards P2550		In Progress
Compressor Dessicant Material		In Progress
Rubber Boots (High Voltage )		In Progress - Vulcanite
Cyclope light Glass		In Progress - NASG
Ground Brush Schunk (Lamellar Seal failure investigation)		In Progress
<b>Expo</b>		<b>Status</b>
Readiness		Metro-RFS Engineering is supporting qualification and test activities of vehicles and wayside.
ATP Certification		Mainline Testing Completed; waiting for final letter
P2000 Couple/un-couple issues		Investigation and testing completed - Fleet modification released
Junction of Blue line and Expo line Testing		Safe Braking test completed at Culver City Station and report of successful test completed.
Frog Testing - Washington & Flower		Test completed by ENSCO - Draft report schedule for 06/25/12 delivery
P2000 Safe Braking Distance at Bumping Post		Completed



# P2550 Vehicle Acceptance Program

## May 2012

### **Vehicle Status Update:**

- Metro has received 49 cars with 48 being final accepted.
- Car 701 has been shipped to Los Angeles and is currently going through acceptance and commissioning activities. It is targeted for acceptance by end of June 2012.

### **Engineering Activities Update:**

- Event recorder: Configuration continues to be finalized. Software is on site for final qualification.
- Decelerometer Failures: Supplier completed internal qualification to replace those on the fleet.

### **Production Car Status – Pittsburgh:**

- Car 702 Reconfiguration of car is in process. This car is now targeted to ship to Los Angeles by June 15, 2012.

### **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

## May 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.
- On-Going, P2550 warranty claims.
- On-Going A650 Base Buy & Option car fleet warranty – Truck Frame Modification Campaign (44 Trucks of 232 modified to date). A MRL Cost Avoidance savings accrued to date: \$249,856.00.
- On-Going MBL P865/P2020 69-car fleet 7.5K PMI supplemental inspection checks (65 of 69 vehicles completed by QA).
- QA FAI's or equipment inspection/failure investigations (17).
- QA PMI Audits & QA Spot Checks performed (11).
- Warranty-QA interest oversight & tracking: Overhauls / Mod Programs, (A650/P2000/P2020/865) 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

## May 2012

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

Description	Course Hours	Student Count	Training Hours
<b>Blue &amp; Expo Line Training - (P865/2020 &amp; P2000 LRV):</b>			
RFS SIEMENS 2000 GE HARMON ATP	48	4	192
RFS 2-WEEK RAIL INTRODUCTION	80	1	80

**Total Blue Line Training (Hours): 272**

**Green Line Training (P2000 LRVs):**  
RFS 2-WEEK RAIL INTRODUCTION

80 2 160

**Total Gold Line Training (Hours): 160**

**Total RFS Instruction for the month of May 2012 (Hours): 432.0**

### Other Instruction Activities

P2550 HRMM manual review	80
P2000 class preparations	40
Mechanical Desk Support	76
Vacation and Holiday	96
Red Line Engineering Support	40
International Rail Rodeo	40

**Total Other Instruction Activities 372.0**

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

**Percentage of core vehicle training complete: 80.1% 98.0% 90.2% 90.2%**

**Siemens P2000 training complete: 39.0% N/A N/A N/A**

**Average Specialist Rail Experience Level in Years: 10.8 10.6 9.2 9.9**

### Core Training Completed

