



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

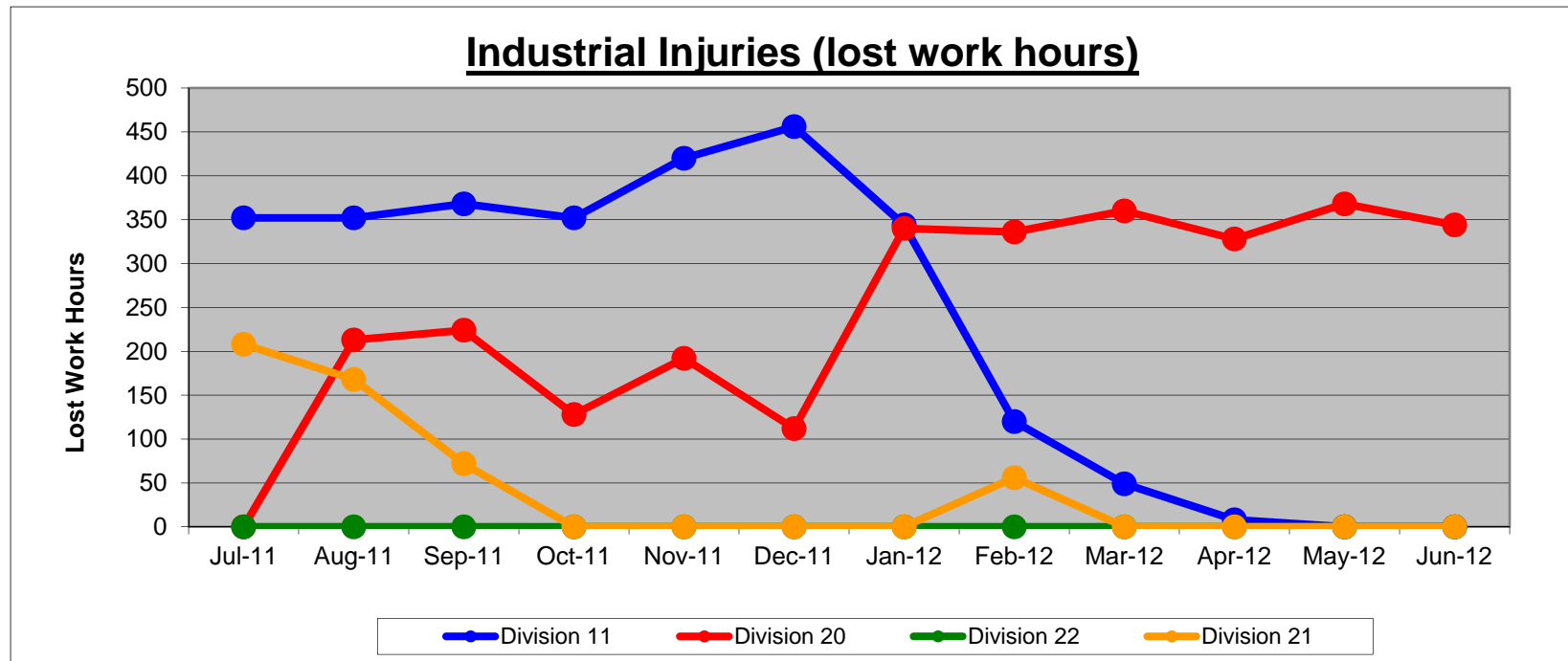


**Metro**

# 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
	- Mean Miles Between Failures (Major)	Page 8
	- Repeat Failures	Page 9
•	Business Processes	
	- Major Incidents	Page 10
	- Preventive Maintenance Compliance	Page 11
•	Finance	
	- Vandalism & Graffiti Costs	Page 12
	- Graffiti Pictures	Page 13
	- Material & Labor Costs	Page 14
	- Cost per mile	Page 15
	- Absence vs. Overtime	Page 16
•	Engineering	
	- Rail Vehicle Engineering Project Summary	Page 17
	- P2550 Vehicle Acceptance Program	Page 18
•	Quality Assurance	
	- Warranty Program Projects Summary	Page 19
•	Growth	
	- RFS Instruction Department Activities	Page 20

# Industrial Injuries – Lost Work Hours June 2012



	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Year to Date
Division 11	352	352	368	352	420	456	344	120	49	8	0	0	2,821
Division 20	0	213	224	128	192	112	340	336	360	328	368	344	2,945
Division 22	0	0	0	0	0	0	0	0	0	0	0	0	0
Division 21	208	168	72	0	0	0	0	56	0	0	0	0	504
Totals	560	733	664	480	612	568	684	512	409	336	368	344	6,270

# Rail Vehicle Accidents & Major Incidents

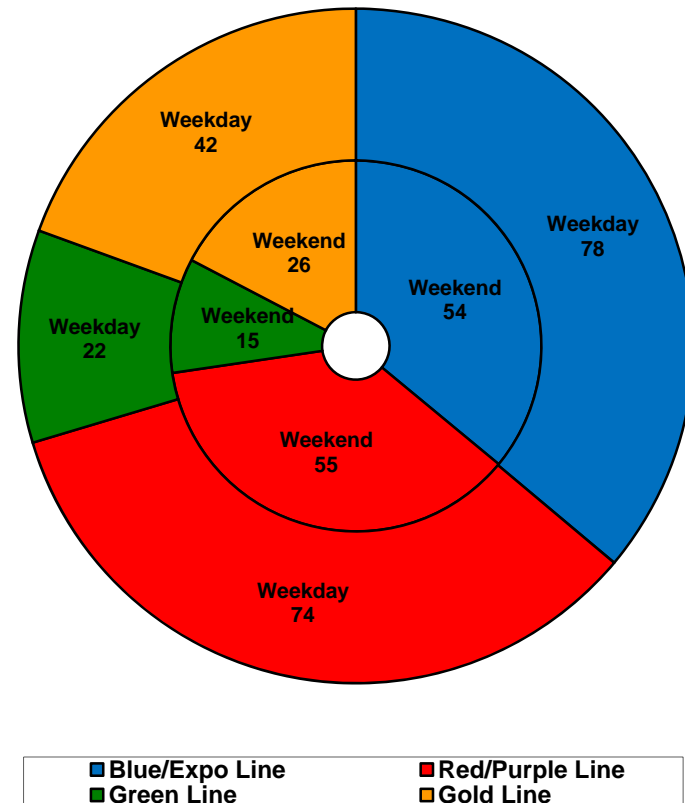
## June 2012

Repair Costs	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Totals
Blue/Expo Line	\$0	\$395	\$7,337	\$888	\$16,188	\$1,199	\$4,704	\$5,087	\$18,570	\$2,675	\$1,718	\$1,186	\$59,947
Red/Purple Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,115	\$571	\$0	\$1,686
Green Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$989	\$0	\$0	\$989
Gold Line	\$3,763	\$2,567	\$0	\$320	\$0	\$0	\$0	\$0	\$4,134	\$0	\$0	\$752	\$11,536
Totals	\$3,763	\$2,962	\$7,337	\$1,208	\$16,188	\$1,199	\$4,704	\$5,087	\$22,704	\$4,779	\$2,289	\$1,938	\$74,158

Rail Vehicle Accident Costs - June 2012				
Metro Blue Main Line				
Date	Incident #	Problem code	Incident Description	Cost
6/15/2012	2188651	Train vs. Pedestrian	A 10-72 was reported at Alondra grade crossing going southbound involving Train #15.	\$764.00
6/12/2012	2191669	Train vs. Pedestrian	A 10-72 was reported heading southbound at Stockwell grade crossing on track 2.	\$0.00
6/15/2012	2192877	Train vs. Pedestrian	A 10-72 was reported heading southbound at 55th grade crossing on track 2.	\$422.00
6/23/2012	2195666	Train vs. Object	A 10-71 was reported approaching Firestone striking an object on track 2 leaving Nadeau.	\$0.00
6/29/2012	2198690	Train vs. Vehicle	A 10-73 was reported southbound at track 2, south of Pico Blvd. involving Train #17.	\$0.00
				<b>1,186.00</b>
Metro Gold Line				
6/22/2012	2195593	Train vs. Vehicle	A 10-73 was reported at the intersection of 1st Street and Clarence going northbound on track 1.	<b>\$752.00</b>
				<b>\$752.00</b>
			<b>GRAND TOTAL</b>	<b>\$1,938.00</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 June 2012

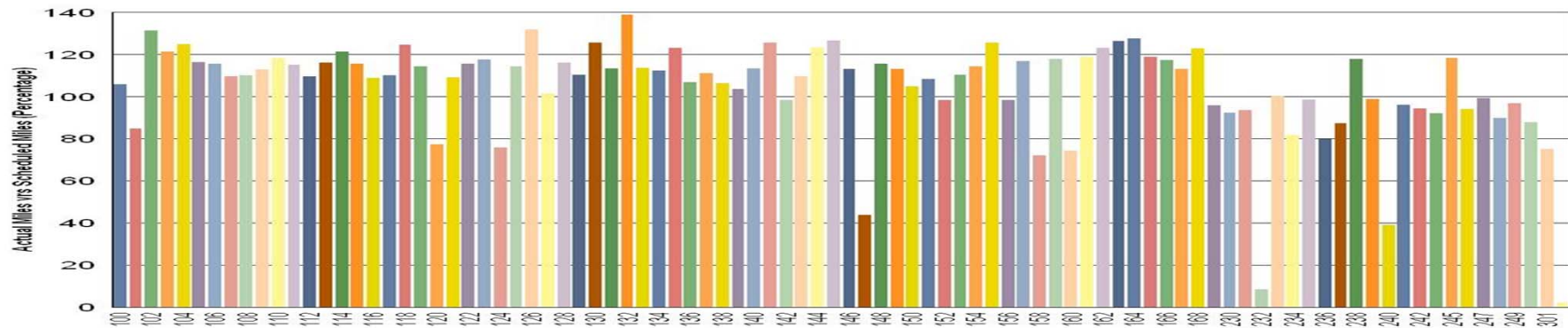
<b>Blue/Expo Line Fleet Size: 92</b>			
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	78	82	105%
Weekend:	54	65	120%
Late Pullouts: 0 *			
Monthly Mileage: 612,749			
<b>Red/Purple Line Fleet Size: 104</b>			
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	74	81	109%
Weekend:	55	68	124%
Late Pullouts: 0 *			
Monthly Mileage: 552,068			
<b>Green Line Fleet Size: 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	108%
Weekend:	15	17	115%
Late Pullouts: 1 *			
Monthly Mileage: 226,266			
<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	41	157%
Late Pullouts: 0 *			
Monthly Mileage: 282,441			



# Vehicle Utilization

## June 2012

**Metro Blue/Expo Line Fleet**



### Blue/Expo Lines:

232 Vehicle assigned for training exercises.

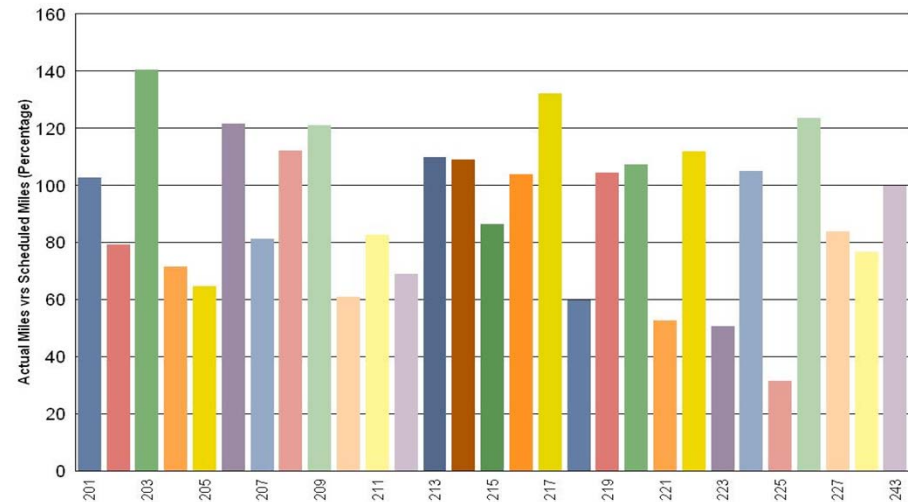
240 Vehicle assigned for training exercises.

302 RFS investigating propulsion problem.

### Green Line:

225 RFS investigating Automatic Train Propulsion (ATP) problems and B-truck back-to-back wheel issues.

**Metro Green Line**



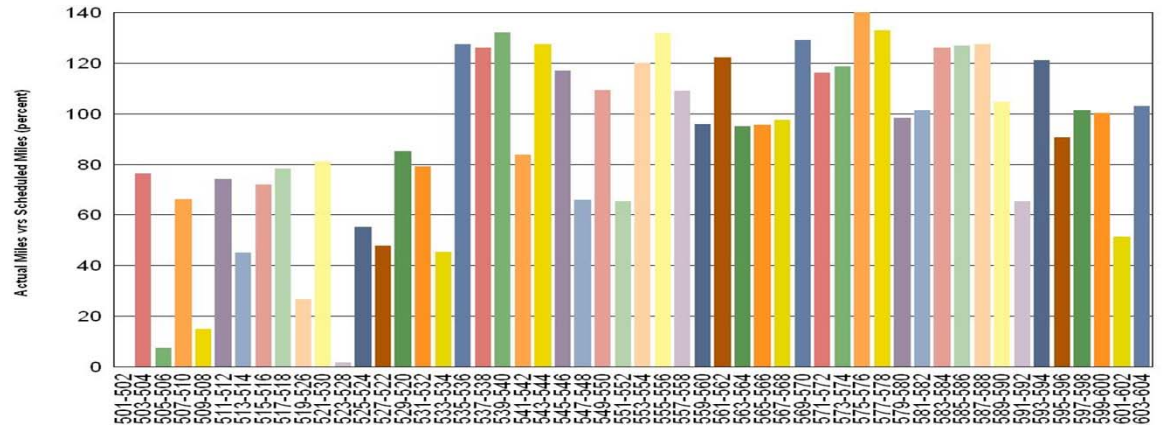
# Vehicle Utilization

## June 2012

**Red/Purple Lines:** Explanation for under-used vehicles:

- 501-502** Vehicle used as engineering test car for HVAC inverter installation and testing.
- 505-506** Vehicle used as friction brake overhaul car. Continue mainline testing to increase mileage.
- 508-509** Vehicle was out of service for most of the month due to dynamic brake repair.
- 519-526** Vehicle out of service due to 90k PMI performed on it. RFS addressing numerous open work orders that were generated.
- 523-528** Vehicle was a repeater for friction brake-related failures. Friction brake failure has been addressed and vehicle use has increased during this month.

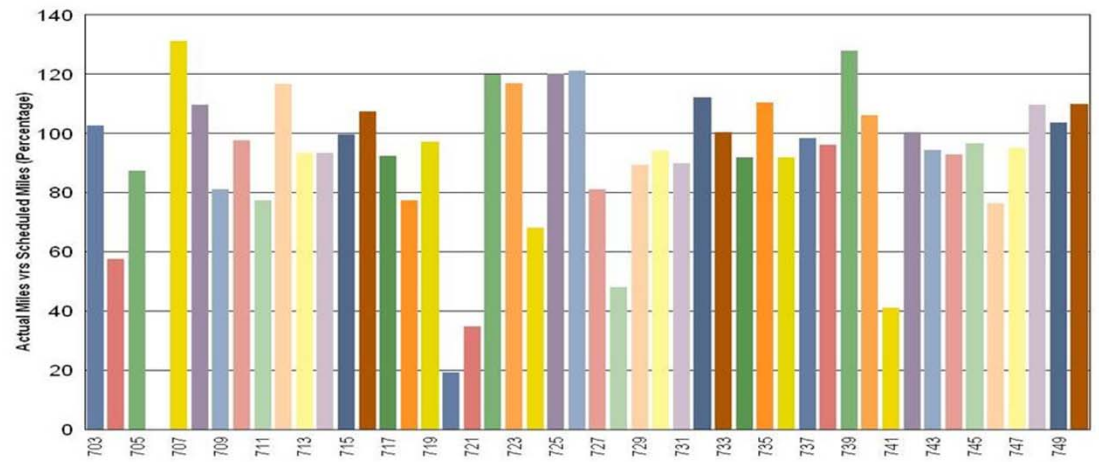
**Metro Red/Purple Lines**



**Gold Line:**

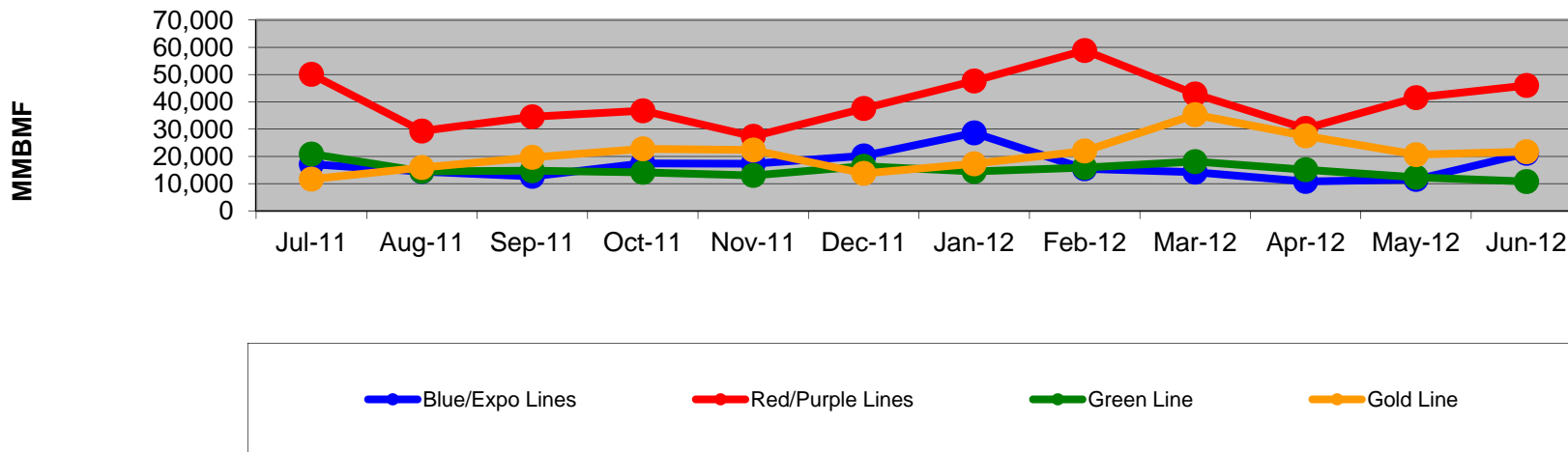
- 706** RFS addressing issues related to axle seals and MV power supply.
- 720** RFS addressing issues related to burned wires in the HVAC 208v wire harness.
- 721** RFS Engineering and contractor addressing chronic ATP problems.

**Metro Gold Line**



# Mean Miles Between Failures (Major) Year to Date

## Mean Miles Between Major Failures (12 months)

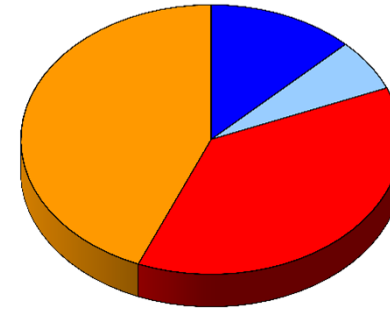


	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
Blue/Expo Lines	17,123	14,425	12,679	17,397	17,322	20,187	28,614	15,454	14,216	10,803	11,546	21,129
Red/Purple Lines	50,099	29,298	34,535	36,745	27,358	37,551	47,660	58,828	42,883	30,255	41,539	46,006
Green Line	20,877	14,482	14,740	14,148	13,029	16,379	14,448	15,895	18,092	15,108	12,342	10,775
Gold Line	11,668	15,906	19,647	22,773	22,340	13,743	17,298	21,981	35,279	27,526	20,649	21,726



# Repeat Failures June 2012

**Metro Blue Line:** 2 Repeat Failures  
**Expo Line:** 1 Repeat Failures  
**Metro Red Line:** 6 Repeat Failures  
**Metro Green Line:** 0 Repeat Failures  
**Metro Gold Line:** 7 Repeat Failures



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

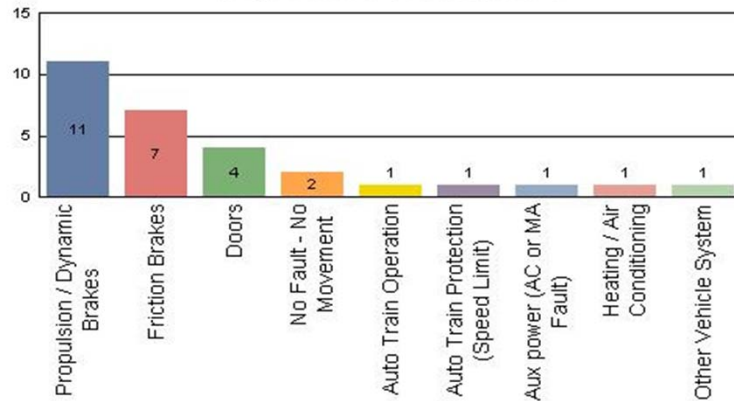
Repeater Car Details - June 2012										
System	Blue Line		Expo Line		Red Line		Green Line		Gold Line	
	Car #	No. of Repeats	Car #	No. of Repeats	Car #	No. of Repeats	Car #	No. of Repeats	Car #	No. of Repeats
ATP	108	1							721	1
									724	1
Doors					507	1			718	1
					547	1			746	2
					575	1				
Propulsion/Dynamic Brake	101	1			592	3				
Trucks/Wheels/Flats			167	1					710	2
TOTALS	2		1		6		0		7	

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

# Major Incidents June 2012

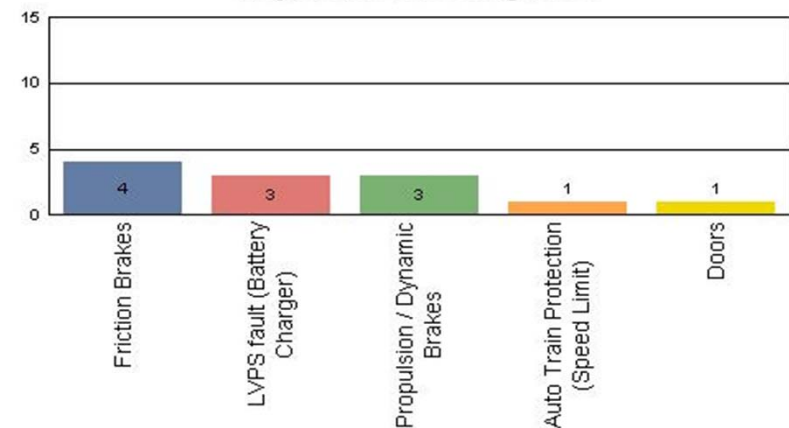
## Metro Blue/Expo Line

Top Incident Categories



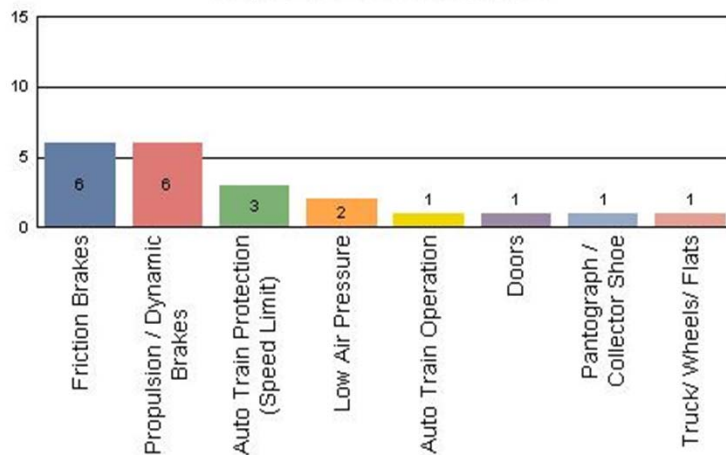
## Metro Red/Purple Line

Top Incident Categories



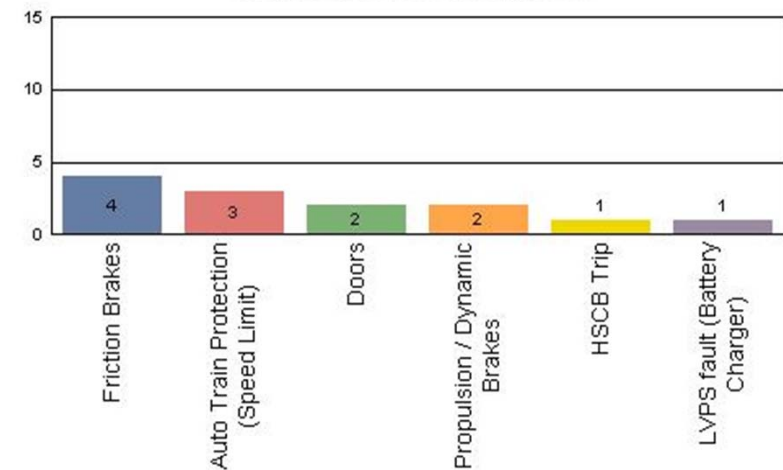
## Metro Green Line

Top Incident Categories



## Metro Gold Line

Top Incident Categories

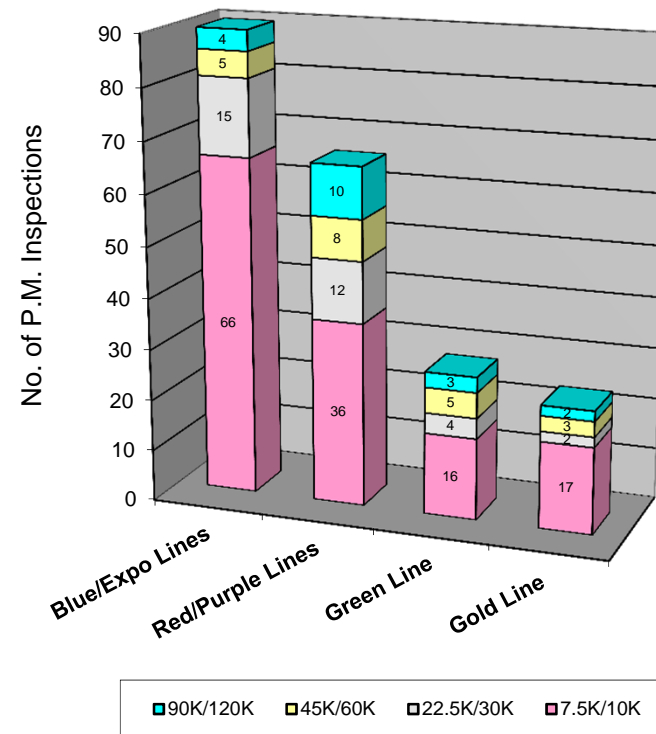


# Preventive Maintenance Compliance June 2012

PM Compliance	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-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%	96%	100%	100%	100%	100%	100%	96%*
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

## June 2012 Preventive Maintenance Inspections

No. of P.M. Inspections	7.5K/10K	22.5K/30K	45K/60K	90K/120K	Totals
Blue/Expo Lines	66	15	5	4	90
Red/Purple Lines	36	12	8	10	66
Green Line	16	4	5	3	28
Gold Line	17	2	3	2	24
<b>Totals:</b>	<b>135</b>	<b>33</b>	<b>21</b>	<b>19</b>	<b>208</b>



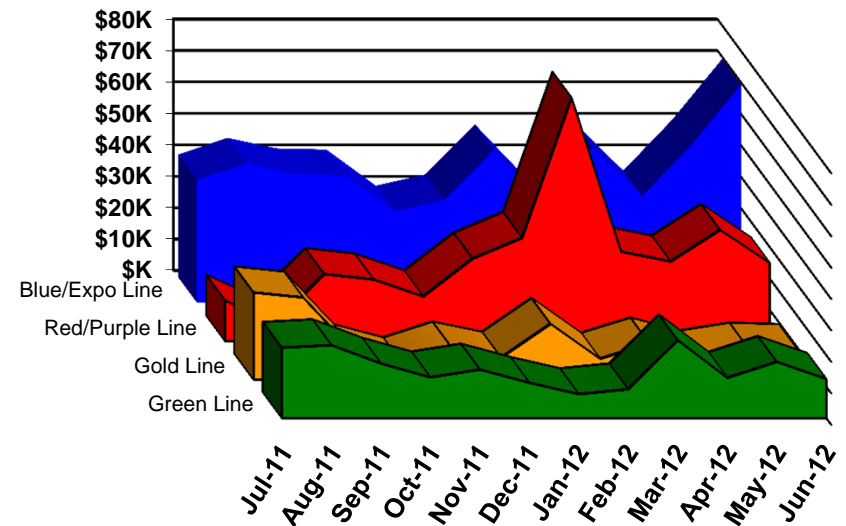
\*Note: PM service was performed; however, due to revenue service needs it was performed 33 miles after the upper inspection limit.

# Vandalism & Graffiti Report

## June 2012

	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Year-to-Date
Blue/Expo Line	\$39K	\$44K	\$41K	\$41K	\$29K	\$33K	\$49K	\$32K	\$49K	\$34K	\$50K	\$69K	\$510K
Red/Purple Line	\$13K	\$6K	\$21K	\$20K	\$14K	\$26K	\$33K	\$77K	\$28K	\$25K	\$35K	\$25K	\$324K
Green Line	\$22K	\$23K	\$17K	\$13K	\$15K	\$11K	\$8K	\$9K	\$25K	\$13K	\$18K	\$12K	\$187K
Gold Line	\$28K	\$26K	\$9K	\$5K	\$10K	\$7K	\$18K	\$7K	\$11K	\$7K	\$10K	\$9K	\$148K
Totals:	\$102K	\$99K	\$89K	\$78K	\$69K	\$77K	\$107K	\$125K	\$114K	\$79K	\$113K	\$116K	\$1,169K

June 2012 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows replaced	46	\$8,308	\$9,045	\$17,353
Vandal Shields	676	\$18,338	\$7,264	\$25,602
Seats Cleaned	790	\$2,549	\$0	\$2,549
Seats Replaced	558	\$17,402	\$17,445	\$34,847
Graffiti removal - other	686	\$22,713	\$450	\$23,163
Repainting panels	16	\$11,220	\$1,420	\$12,640
Totals	2,772	\$80,530	\$35,624	\$116,154



# Graffiti Pictures June 2012

Blue Line



Green Line



Gold Line



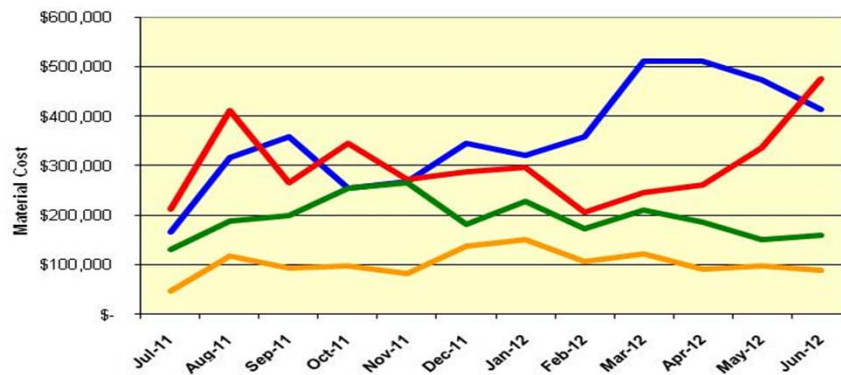
# Material and Labor Costs

## June 2012

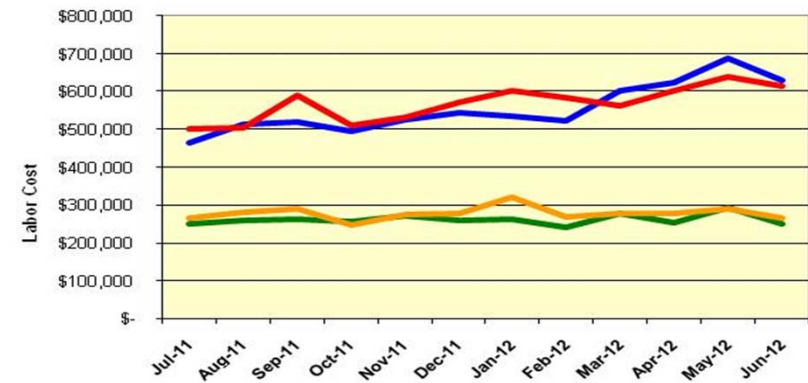
These are preliminary June financials. Finals to be available next month.

MATERIALS	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
Blue/Expo Lines	\$ 167,328	\$ 318,296	\$ 359,508	\$ 256,152	\$ 268,760	\$ 346,891	\$ 322,169	\$ 359,911	\$ 510,512	\$ 511,185	\$ 473,281	\$ 414,601
Red/Purple Lines	\$ 212,074	\$ 410,299	\$ 263,808	\$ 344,563	\$ 272,291	\$ 285,916	\$ 296,353	\$ 205,225	\$ 244,902	\$ 260,532	\$ 335,824	\$ 474,908
Green Line	\$ 129,976	\$ 187,997	\$ 198,811	\$ 254,691	\$ 265,489	\$ 180,929	\$ 227,110	\$ 172,152	\$ 210,220	\$ 186,572	\$ 149,660	\$ 157,920
Gold Line	\$ 47,760	\$ 118,401	\$ 94,967	\$ 98,380	\$ 83,425	\$ 138,599	\$ 150,971	\$ 106,736	\$ 121,821	\$ 91,218	\$ 98,407	\$ 88,885
Totals	\$ 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	\$ 1,136,314

Material Costs



Labor Costs

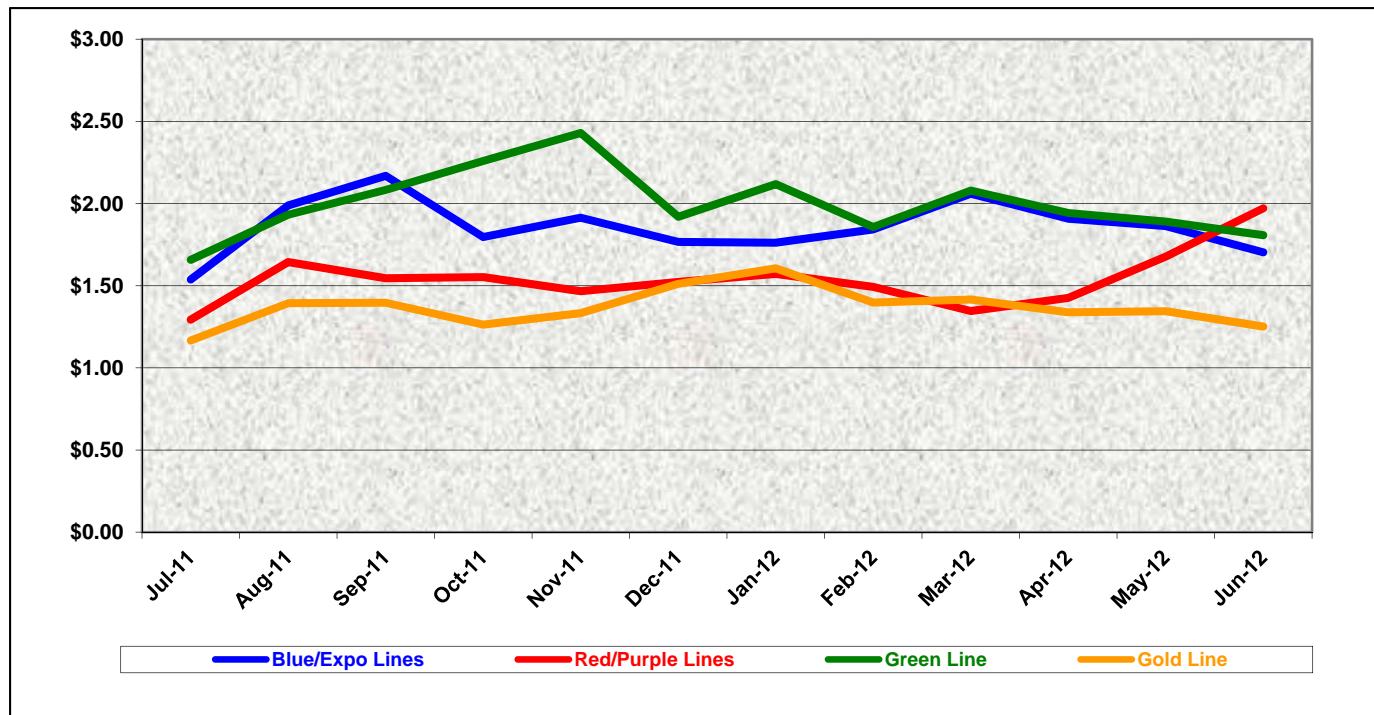


LABOR	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12
Blue/Expo Lines	\$ 464,468	\$ 513,406	\$ 520,526	\$ 493,739	\$ 526,600	\$ 544,564	\$ 534,797	\$ 522,603	\$ 601,905	\$ 622,113	\$ 687,897	\$ 628,928
Red/Purple Lines	\$ 500,504	\$ 504,785	\$ 589,986	\$ 510,944	\$ 530,408	\$ 571,885	\$ 602,770	\$ 584,940	\$ 562,875	\$ 602,434	\$ 639,102	\$ 613,032
Green Line	\$ 250,617	\$ 259,629	\$ 261,796	\$ 256,610	\$ 272,603	\$ 259,198	\$ 262,563	\$ 241,042	\$ 278,653	\$ 253,643	\$ 293,492	\$ 251,094
Gold Line	\$ 265,256	\$ 280,715	\$ 289,048	\$ 246,890	\$ 274,017	\$ 276,926	\$ 321,152	\$ 267,372	\$ 277,944	\$ 276,975	\$ 290,375	\$ 264,536
Totals	\$ 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	\$ 1,757,590

# Cost Per Mile June 2012

**These are preliminary June financials. Finals to be available next month.**

Cost per mile:	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Average
Blue/Expo Lines	\$1.54	\$1.99	\$2.17	\$1.80	\$1.91	\$1.77	\$1.76	\$1.84	\$2.06	\$1.91	\$1.86	\$1.70	\$1.86
Red/Purple Lines	\$1.29	\$1.64	\$1.55	\$1.55	\$1.47	\$1.52	\$1.57	\$1.49	\$1.35	\$1.43	\$1.68	\$1.97	\$1.54
Green Line	\$1.66	\$1.93	\$2.08	\$2.26	\$2.43	\$1.92	\$2.12	\$1.86	\$2.08	\$1.94	\$1.89	\$1.81	\$2.00
Gold Line	\$1.17	\$1.39	\$1.40	\$1.26	\$1.33	\$1.51	\$1.61	\$1.40	\$1.42	\$1.34	\$1.34	\$1.25	\$1.37





# Absences vs. Overtime

## June 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	0.00	0.00	0.00	8.00	0.00	8.00
BER-BEAVEMENT	0.00	24.00	24.00	0.00	16.00	0.00	64.00
CTO-COMPENSATORY TIME OFF	0.00	6.00	16.00	0.00	52.00	8.00	82.00
CUT-EMPLOYEE LEAVES EARLY	5.00	3.24	3.14	0.00	1.20	0.00	12.58
CVA - CASUAL VACATION	0.00	8.00	944.00	16.00	200.00	0.00	1,168.00
DSL-DISABILITY LEAVE/LONG	88.00	768.00	144.00	0.00	0.00	0.00	1,000.00
EFH-EMG. FLOAT HOL.	0.00	16.00	32.00	96.00	72.00	0.00	216.00
ETO-EXCUSED TIME OFF	13.50	47.58	28.43	2.00	19.90	0.50	111.91
FML-FAMILY CARE LEAVE	0.00	88.00	216.00	73.00	120.00	0.00	497.00
FMS-FAMILY LEAVE SICK	0.00	8.00	100.00	0.00	54.00	0.00	162.00
HLF-HOLIDAY FLOATING	88.00	1,168.00	440.00	248.00	288.00	0.00	2,232.00
II-INDUSTRIAL INJURY	0.00	0.00	344.00	0.00	0.00	0.00	344.00
JUR-JURY DUTY	0.00	0.00	16.00	0.00	8.00	0.00	24.00
LC1-LABOR CODE 233	40.00	24.00	110.56	40.00	104.00	0.00	318.56
MLN-MILITARY ABSENCE-UNPAID	0.00	0.00	48.00	32.00	0.00	0.00	80.00
OWP-OFF WITH PERMISSION	0.00	0.00	8.00	0.00	0.00	0.00	8.00
RTO-REQUESTED TIME OFF-NO PA	0.00	24.00	0.00	0.00	0.00	0.00	24.00
SCK-SICK PAY	8.00	56.00	136.00	25.00	20.00	0.00	245.00
SCW-SICK WITHOUT PAY	0.00	48.00	0.00	271.00	128.00	0.00	447.00
TAR-TARDY	0.00	3.40	1.22	2.54	0.95	0.00	8.11
VAC-VACATION	152.00	1,114.08	464.00	716.00	644.00	0.00	3,090.08
VAC-VACATION WHILE SICK	36.00	0.00	0.00	0.00	40.00	0.00	76.00
<b>Total Absence Hours</b>	<b>431</b>	<b>3,406</b>	<b>3,075</b>	<b>1,522</b>	<b>1,776</b>	<b>9</b>	<b>10,218</b>
Number of Work Force (assigned)	33	118	114	47	51	6	369
Full Work Force hours/month	5,719	20,449	19,756	8,145	8,838	1,040	63,948
<b>Absence as a % of Work Force</b>	<b>8%</b>	<b>17%</b>	<b>16%</b>	<b>19%</b>	<b>20%</b>	<b>1%</b>	<b>16%</b>
OVERTIME TYPE and HOURS	3940	3941	3942	3943	3944	3947	Total
CTB-COMPENSATORY TIME TO BANK	12	1209	1030	467	388	76	3182
OTP-PREM OVERTIME	750	2813	3162	1106	1090	52	8973
WLO-Worked Lunch Overtime	1	103	171	74	114	8	469
<b>Total</b>	<b>762</b>	<b>4125</b>	<b>4363</b>	<b>1646</b>	<b>1592</b>	<b>136</b>	<b>12624</b>
<b>Overtime as a % of Work Force</b>	<b>13%</b>	<b>20%</b>	<b>22%</b>	<b>20%</b>	<b>18%</b>	<b>13%</b>	<b>20%</b>
UNCOVERED ABSENCES	3940	3941	3942	3943	3944	3947	Total
Absences FTE	2	20	18	9	10	0	59
OTP FTE	4	24	25	9	9	1	73
<b>FTE Difference</b>	<b>-2</b>	<b>-4</b>	<b>-7</b>	<b>0</b>	<b>1</b>	<b>-1</b>	<b>-14</b>



# Rail Vehicle Engineering Project Summary

## June 2012

Preparation of Engineering Technical Specifications	Tracking #	Status
Red Line AC Gear Box (Rev. 0)	A650/TS/026	Draft in process
Powered Axle Overhaul SOW	P2000 SOW	Contract awarded to Pamco
Vital Relay Calibration	P865-P2020/TS/061	In Revising Process
Windows glass and rubber glazing specification	P865-P2020/TS-066	Received draft from CH2M and in editing process
Friction Brake Kit Less Air Compressor Overhaul	P2000/TS/035 Rev 0	Released to Procurement for bid
Center Truck Friction Brake Disc	P2000-TS-020 rev. 01	Released to Procurement for bid
A650 Battery Specification	A650/TS/39	Released to Procurement for bid
Powered Axle Overhaul SOW	P865-P2020/TS/xx	Received draft from CH2M and in editing process
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	CH2M draft sent for industry review
Tire kit specification	P865-P2020/TS/064	Draft in process
Red Line (Base Buy) DC Traction Motor	P650/TS/041	Released to Procurement for bid
MBL HVAC Compressor	P865/P2020/TS/xx	Received draft from CH2M and in editing process
Head Sign LED	P2000/TS/xx	Draft in process
Chevron springs	P865/P2020/TS/xx	Received draft from CH2M and in editing process
General - All Lines		Status
Roadway Worker Protection		CPUC/Installing ProTran1 Device-P865/P2020/P2000/P2550 completed, A650 in process
Fleet Support, troubleshooting, and fix cars		CH2M Hill
New Radios installed to replace old radios		Meeting 3/7/2012-Contract awarded, MBL prototype in installtion process.
Bike Space		P2000/P2550/A650 Fleet modification completed.
P2000 Overhaul Program		Status
Master Controller - Bombardier Refurbish		Ongoing Program
RSS and EOSS Bundle Cables/Connectors - Glenair		In Progress
Handicap Seat Modification using Velcro		In Progress
CCH possible replacement (Focon)		Send information to Focon
P865/P2020 Program		Status
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 were tested and in fabrication for fleet modification.
Traction Motor Cleaning Procedure		Completed
Under seat - No motion relays		ABB Prototype schedule for installation on 07/24/12
Replace air compressor DC motor with AC motor		Knorr prototype on order
P2000 Gold to Green		Status
Signal package conversion (Gold to green)		On-hold
A650 Overhaul Program		Status
Midlife Overhaul Specification		Draft complete by Metro. In process of Consultant selection to complete.
HPT Upgrade		Wabtec Proposal received - Production run prototype by end of July.
AB New Traction Motor Mount		AB for Fleet Modification in progress. A total of sixty (60) 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 - Procurement getting more quotes.
Door Operator Gearbox and Rollers Overhaul		In Progress
H-4 electronic units		Unit upgrade - Fleet issues (Wabtec)
P2550		Status
Vehicle Acceptance		Forty eight cars have been Final Accepted. Cars 701 and 702 are in commisioning test.
Gearbox Seepage/Leakage investigation		Greg Garza will add O-ring part number on 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
Expo		Status
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 in process
Junction of Blue line and Expo line Testing		Safe Braking test completed at Culver City Station and report of successful test completed.
P2000 Safe Braking Distance at Bumping Post		Completed
Junction of Blue line and Expo line Testing		Recent testing (07/26/12) indicated signal track problem at Culver City. Wayside are recertify track circuits. Further testing will be undertaken when complete.



# P2550 Vehicle Acceptance Program

## June 2012

### Vehicle Status Update:

- Metro has received 50 cars with 48 being final accepted.
- Cars 701 and 702 have been shipped to Los Angeles and are currently going through acceptance and commissioning activities. Vehicle 701 is targeted for acceptance by mid July 2012. A target date for 702 will be set once mainline testing begins.

### Engineering Activities Update:

- Event recorder: Configuration continues to be finalized. Software is onsite for final qualification.
- Decelerometer Failures: Final software is targeted to be onsite by beginning of August 2012 for final testing. Upon successful testing fleet will be modified.

### 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

## June 2012

### **QA-WARRANTY ACTIVITIES**

- Commenced 1000 Mile Burn-In Acceptance Testing, Vehicle 701
- On-Going, P2550 Car Mod Campaign/Testing Oversight, Component Reliability Trend Tracking, Veh PAAT2 & 3 performances checks
- On-Going, P2550 parts tracking: Contract Spares, Capital Spares, Warranty Spares & Metro Loaned Parts
- On-Going, P2550 Warranty Claims Processing
- On-Going A650 Base Buy & Option Car Fleet Warranty – Truck Frame Modification Campaign (46 Trucks of 232 modified to date). MRL Cost Avoidance savings accrued to date \$279,856.00
- Completed 7.5K Supplemental Inspections P865 & P2020 Fleet Cars
- Commenced 7.5K Supplemental Inspections & Articulation/Cab Wiring Tightness Checks on MBL & MGL P2000 Fleet Cars
- On-Going QA FAI's or equipment inspection/failure investigations
- On-Going QA PMI Audits & QA Spot Checks
- 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

## June 2012

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

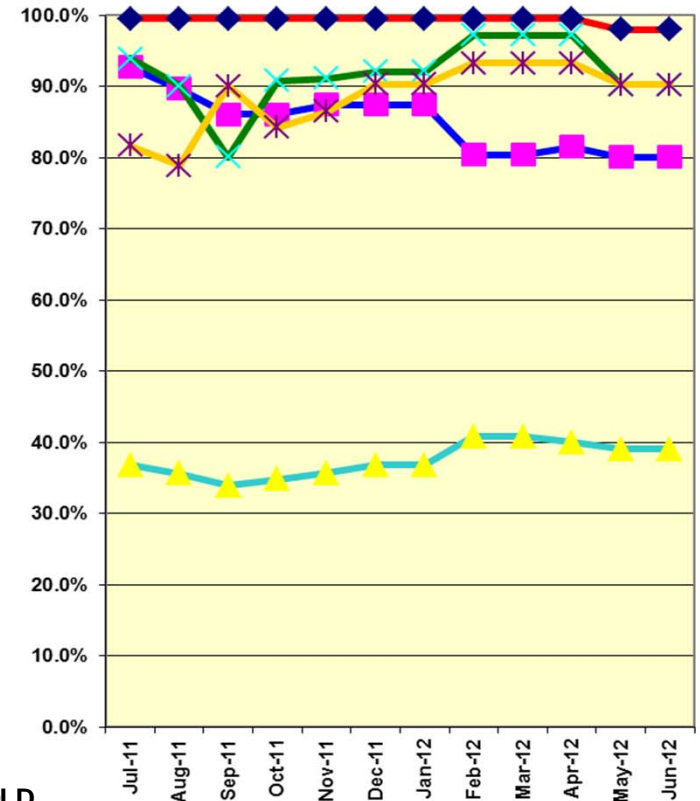
Description	Course Hours	Student Count	Training Hours
<b><u>Blue &amp; Expo Line Training - (P865/2020 &amp; P2000 LRV):</u></b>			
RFS SIEMENS MAINLINE DUTY, DEAD TOW AND VEHICLE RECOVERY (HANDS ON)	32	12	384
<b>Total Blue Line Training (Hours):</b>			<b>384</b>
<b><u>Red Line Training (Breda A650 HRV):</u></b>			
RFS BRED A 650 VEHICLE INTRO	16	1	16
RFS BRED A 650 VEHICLE SYSTEM	40	1	40
<b>Total Red Line Training (Hours):</b>			<b>56</b>
<b><u>Total RFS Instruction for the month of June 2012 (Hours):</u></b>			<b>440.0</b>
<b><u>Other Instruction Activities</u></b>			
P2550 HRMM manual review			32
P2000 class preparations			80
HazCom Train the Trainer			40
Vacation and Holiday			24
Red Line Engineering Support			40
International Rail Rodeo			8
<b><u>Total Other Instruction Activities</u></b>			<b>224.0</b>

### 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: **10.9 10.7 9.3 10.0**

### Core Training Completed



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