



# **Rail Fleet Services Monthly Report March 2011**

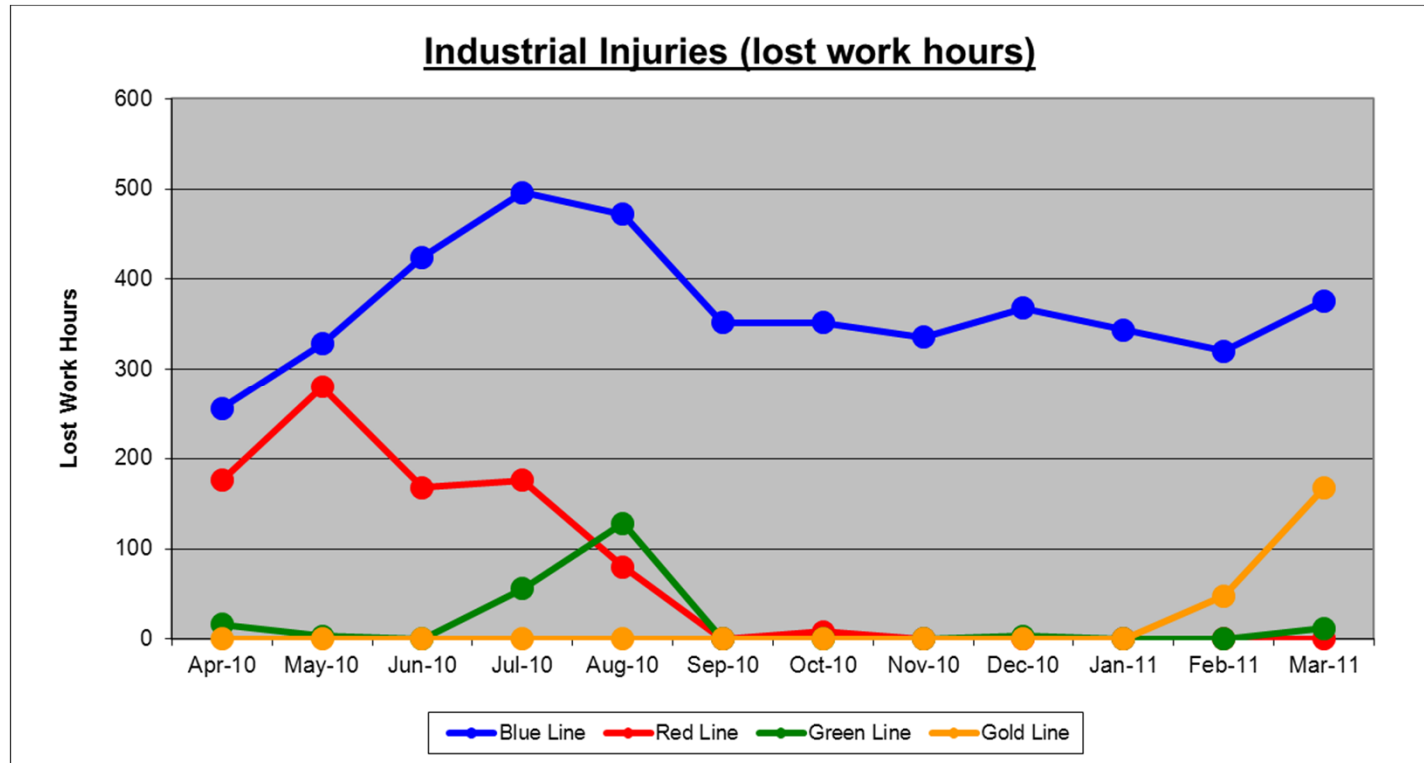


**Metro**

# 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 (Major)	Page 9
• Business Processes	
– Reported Incidents	Page 10
– Preventative 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	
– Rail Fleet Services Training	Page 21

# Industrial Injuries – Lost Work Hours March 2011



	Employees		March 2011 Lost Work Hours			
	Assigned	Active	Service Attendant	Maint. Specialist	Body Repairer /Painter	Total Hrs.
Blue Line	108	104	16	176	184	376
Red Line	103	97	0	0	0	0
Green Line	48	45	12	0	0	12
Gold Line	51	48	168	0	0	168
Eng/QA/Admin	25	25	0	0	0	0
Totals	335	319	196	176	184	556

# Rail Vehicle Accidents & Major Incidents

## March 2011

Repair Costs	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Totals
Blue Line	\$2,100	\$5,705	\$2,050	\$36,498	\$50,124	\$916	\$4,781	\$10,716	\$16,938	\$961	\$2,114	\$684	\$133,587
Red Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$562	\$0	\$0	\$0	\$562
Green Line	\$0	\$4,799	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,799
Gold Line	\$0	\$3,523	\$0	\$653	\$0	\$441	\$4,286	\$3,016	\$1,374	\$239	\$13	\$4,031	\$17,576
Totals	\$2,100	\$14,027	\$2,050	\$37,151	\$50,124	\$1,357	\$9,067	\$13,732	\$18,874	\$1,200	\$2,127	\$4,715	\$156,524

Rail Vehicle Accident Costs - March 2011				
Metro Blue Main Line				
Date	Incident #	Problem code	Incident Description	Cost
3/1/2011	1991316	Train vs Other	Train # 6 T-250 reports train involved in a 10-71 at 108th crossing with a shopping cart.	\$204.00
3/1/2011	1991390	Train vs Other	Train # 1, T-77, (111B)-148-126 reports a 10-71 with a shopping cart southbound at 103rd grade crossing on track 2.	\$255.00
3/29/2011	2000386	Train vs Auto	Train # 1 T-068 car # 144A-147-164 involved in a 10-73 at Washington Bl east of Los Angeles St.	\$225.00
TOTAL FOR METRO BLUE LINE				\$684.00
Metro Gold Line				
Date	Incident #	Problem code	Incident Description	Cost
3/10/2011	1994476	Train vs Train	T-166 transported 10-58, accident Gold Line Yard	\$0.00
3/20/2011	1997454	Train vs Other	Train 4 operating on track # 2 made contact with fallen tree branches laying on right-of-way.	\$156.00
3/25/2011	1999278	Train vs Auto	Operators reported vehicle made an illegal right turn in front of the train making contact. T-142, Train 4 (746B)-717-723, South, Track 2, Temple/Alameda	\$3,875.00
3/26/2011	1999524	Train vs Equipment	R-79 reported while relocating the gap train to its proper position, the train came into contact with the bumping post at Atlantic tail track 2, (724B)-712.	\$0.00
TOTAL FOR METRO GOLD LINE				4,031.00
GRAND TOTAL				4,715.00
(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 – AM/PM Pull-Outs March 2011

## Blue Line – Fleet Size 69 cars

Weekday pull-out: 60 cars

Weekend pull-out: 36 cars

**Monthly Mileage: 424,988 miles**

## Expo Line – Fleet Size 15 cars

## Red Line - Fleet Size 104 cars

Weekday pull-out: 70 cars

Weekend pull-out: 48 cars

**Monthly Mileage: 554,244 miles**

## Green Line – Fleet Size 29 cars

Weekday pull-out: 22 cars

Weekend pull-out: 14 cars

**Monthly Mileage: 224,430 miles**

## Gold Line – Fleet Size 51 cars

P2550 – Fleet Size 43 cars

P2000 – Fleet Size 8 cars

Weekday pull-out: 42 cars

Weekend pull-out: 26 cars

**Monthly Mileage: 264,530 miles**

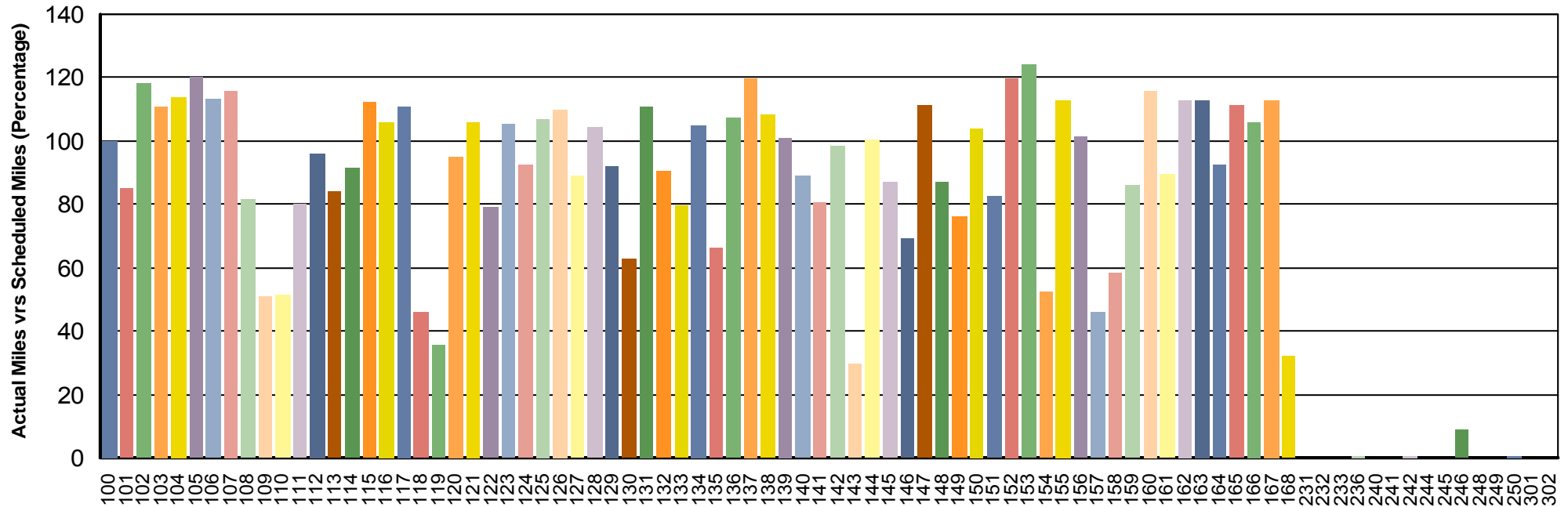
## AM/PM Pull-Out Requirements



# Vehicle Utilization

## March 2011

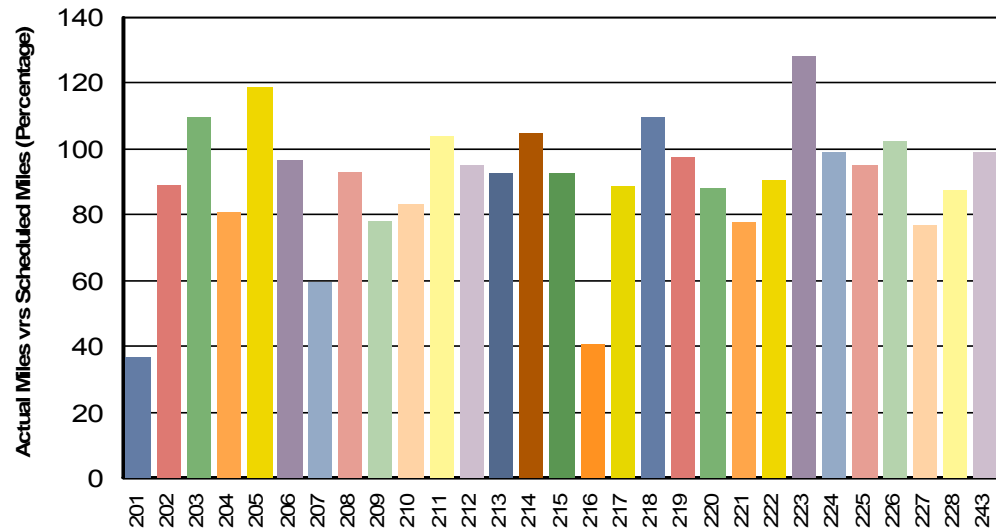
Metro Blue/Expo Line Fleet



The entire Expo Fleet (all 15 cars, 231-302) are not in revenue service at this time, but may be listed due to training and testing. Mileage will be minimal each month until Expo opens.

*Note: Percentage includes an average 4% mileage deduction for Yard mileage and Vehicle Testing.*

Metro Green Line

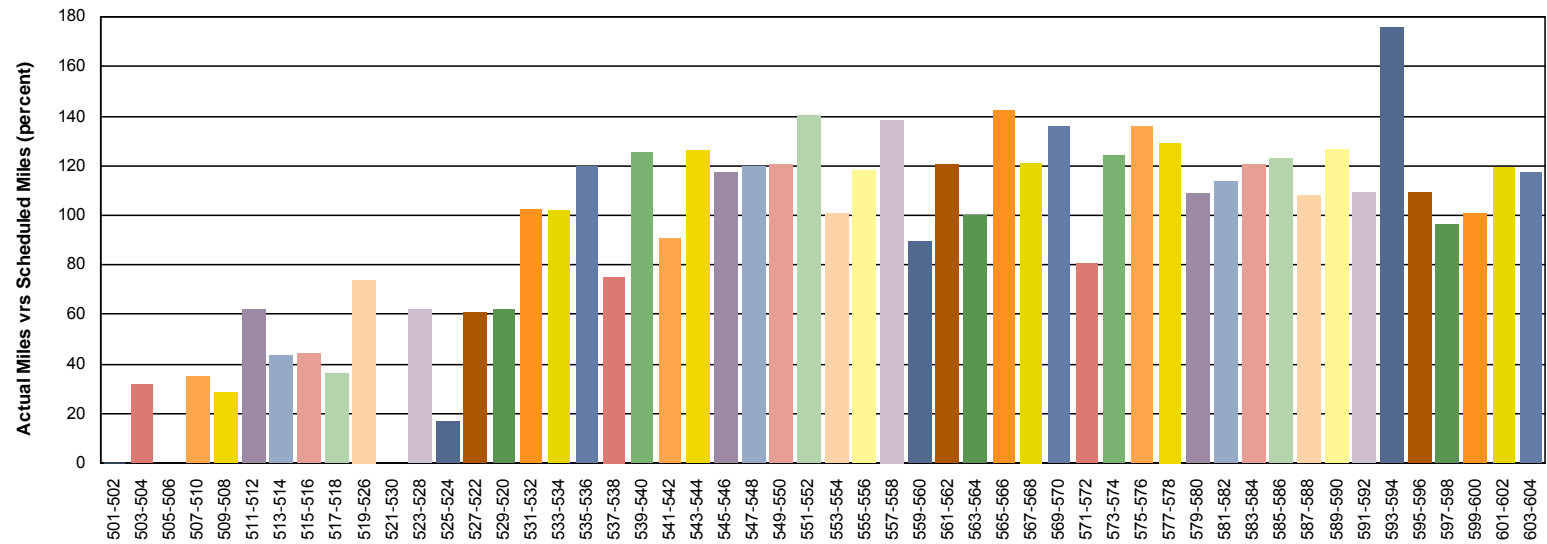


# Vehicle Utilization March 2011

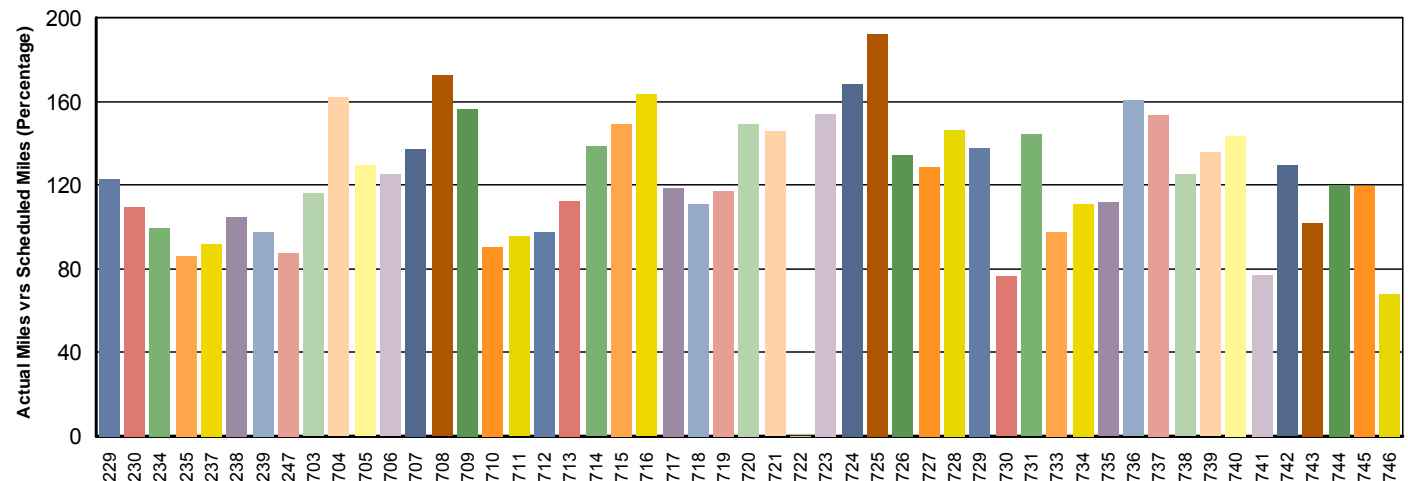
Red Line – Vehicles 501-502, 505-506, 521-530, and 523-528 are flagged as low vehicle utilization due to Base-Buy fleet having propulsion and brake problems.

*Percentage includes an average 4% mileage deduction for Yard mileage and Vehicle Testing.*

**Metro Red Line**



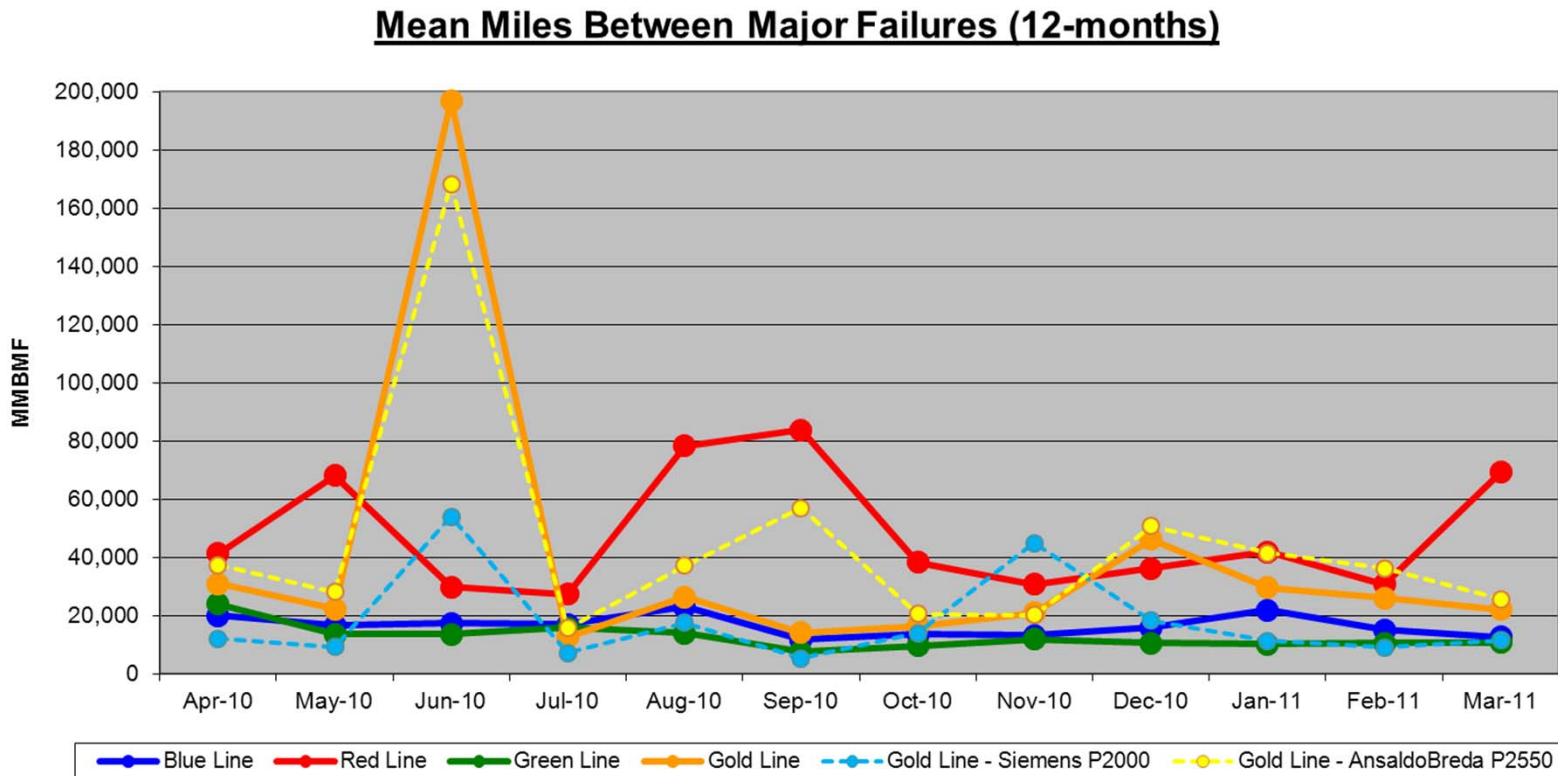
**Metro Gold Line**



Gold Line – P2000 cars (2xx) are in the process of being moved to the Blue Line for use on the new Expo Line

Car 722 has been out of service awaiting parts from AnsaldoBreda

# Mean Miles Between Failures (Major) March 2011

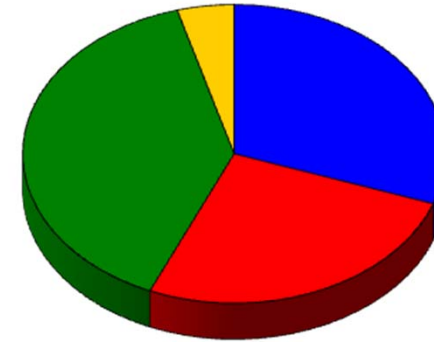


Mar-11	Total Vehicle Miles	Major Failures	Minor Failures	Total System Failures	No Problem Found	No Problem Found (%)	MMBF (Major)	MMBF (Minor)	MMBF (TOTAL)
Blue Line	424,988	34	110	144	28	19%	12,500	3,864	2,951
Red Line	554,244	8	177	185	27	15%	69,281	3,131	2,996
Green Line	224,430	21	64	85	18	21%	10,687	3,507	2,640
Gold Line	264,530	12	87	99	23	23%	22,044	3,041	2,672
P2000	34,239	3	16	19	7	37%	11,413	2,140	1,802
P2550	230,291	9	71	80	16	20%	25,588	3,244	2,879



# Repeat Failures (Major) March 2011

**Metro Blue Line:** 7 Repeat Failures  
**Metro Red Line:** 6 Repeat Failures  
**Metro Green Line:** 9 Repeat Failures  
**Metro Gold Line:** 1 Repeat Failure



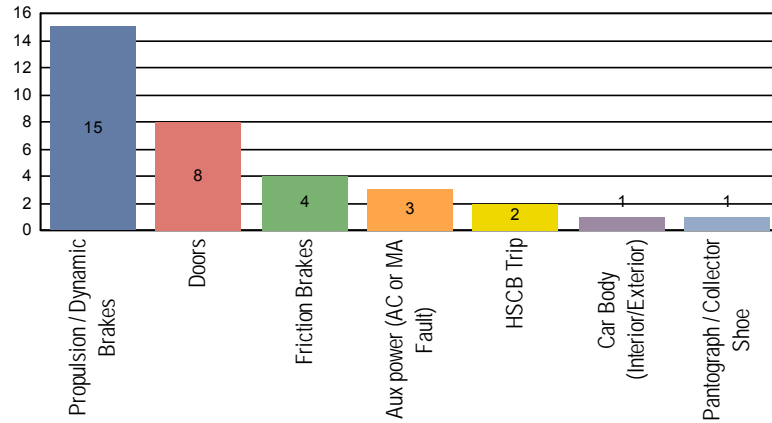
■ Blue Line 
 ■ Red Line 
 ■ Green Line 
 ■ Gold Line

Repeater Car Details - March 2011								
System	Blue Line		Red Line		Green Line		Gold Line	
	Car #	Repeats	Car #	Repeats	Car #	Repeats	Car #	Repeats
Automated Train Protection	121	1			210	2		
Doors	139	1						
	149	2						
Friction Brakes					201	2		
HVAC			531	2				
Propulsion/Dynamic Brake	122	1	510	1	204	1		
	168	2	517	2	207	2		
					215	1		
					227	1		
PA/Intercom			587	1				
TWC							723	1
TOTALS	7		6		9		1	

# Major Incidents March 2011

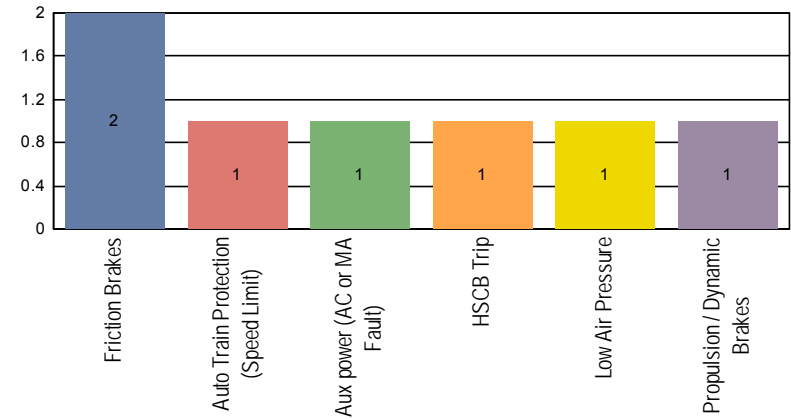
## Metro Blue Line

Top Incident Categories



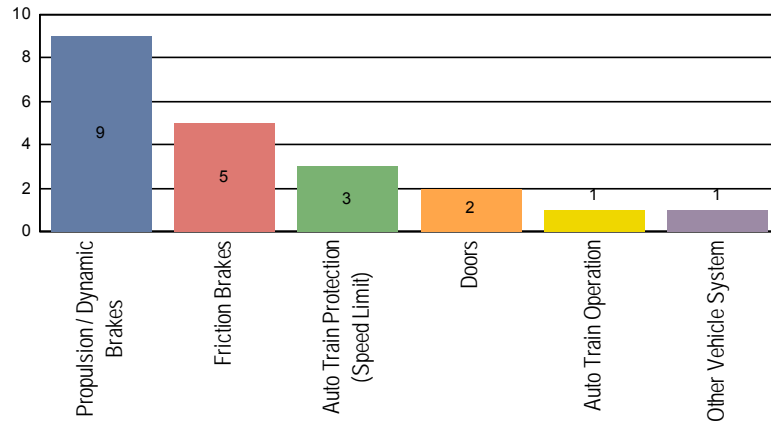
## Metro Red Line

Top Incident Categories



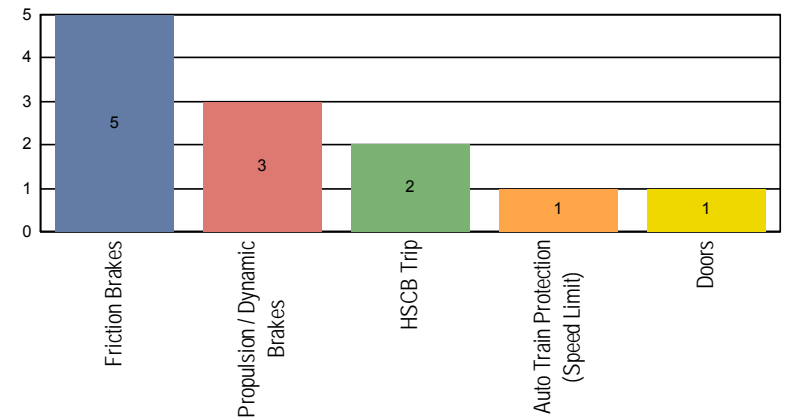
## Metro Green Line

Top Incident Categories



## Metro Gold Line

Top Incident Categories



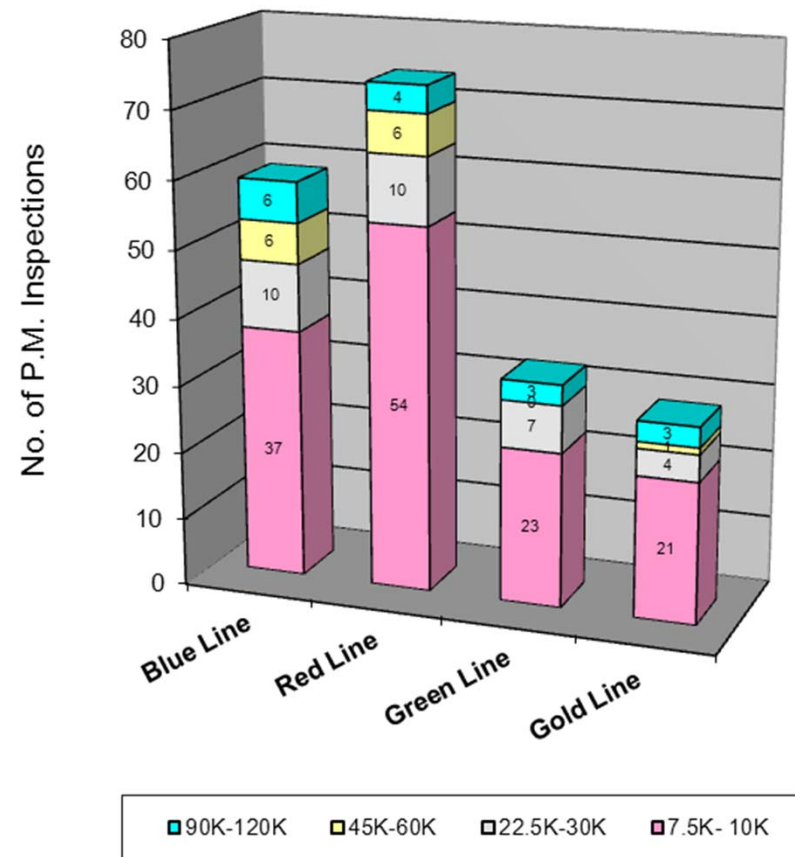
# Preventative Maintenance Compliance

## March 2011

PM Compliance	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Blue Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Red Line	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	97%	100%
Green Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

March 2011 Preventative Maintenance Inspections

No. of P.M. Inspections	7.5K-10K	22.5K-30K	45K-60K	90K-120K	Totals
Blue Line	37	10	6	6	59
Red Line	54	10	6	4	74
Green Line	23	7	0	3	33
Gold Line	21	4	1	3	29
Totals:	135	31	13	16	195

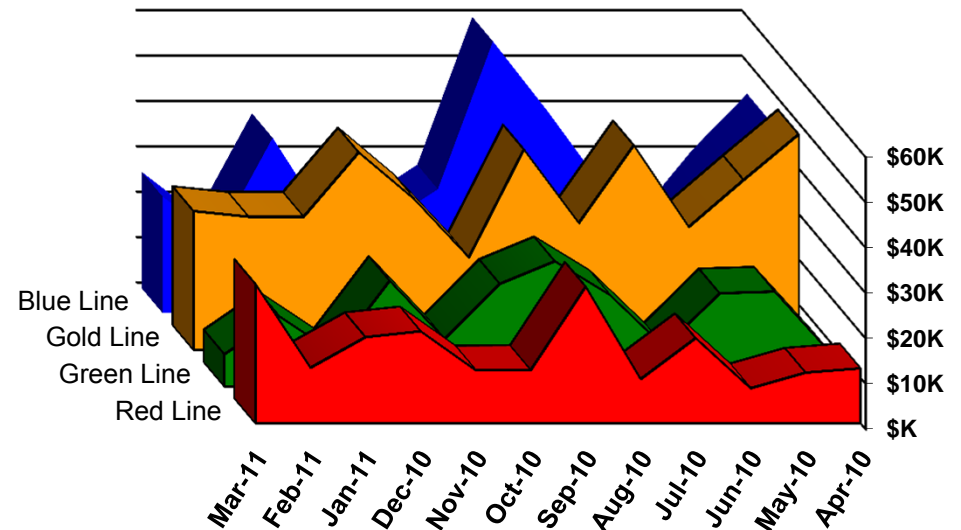


# Vandalism & Graffiti Report

## March 2011

	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Year-to-Date
Blue Line	\$43K	\$31K	\$16K	\$28K	\$44K	\$60K	\$27K	\$19K	\$20K	\$39K	\$16K	\$26K	\$369K
Red Line	\$12K	\$11K	\$8K	\$19K	\$10K	\$30K	\$12K	\$12K	\$20K	\$19K	\$12K	\$31K	\$195K
Green Line	\$8K	\$21K	\$21K	\$9K	\$20K	\$28K	\$23K	\$10K	\$23K	\$7K	\$15K	\$7K	\$192K
Gold Line	\$48K	\$37K	\$27K	\$45K	\$28K	\$44K	\$20K	\$33K	\$44K	\$29K	\$29K	\$31K	\$416K
Totals:	\$110K	\$100K	\$71K	\$100K	\$102K	\$162K	\$82K	\$75K	\$107K	\$94K	\$73K	\$94K	\$1,172K

March 2011 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows replaced	25	\$5,037	\$15,365	\$20,403
Vandal Shields	976	\$25,473	\$11,251	\$36,724
Graffiti removal - other	907	\$3,452	\$0	\$3,452
Seats Cleaned	799	\$5,377	\$3,570	\$8,947
Seats Replaced	719	\$5,733	\$19,665	\$25,398
Ext/Int Repairs	160	\$0	\$0	\$0
Exterior Graffiti Clean	0	\$0	\$0	\$0
Totals for March 2011		\$45,073	\$49,851	\$94,924



# Graffiti Pictures

## March 2011

Blue Line



Green Line



Expo Line



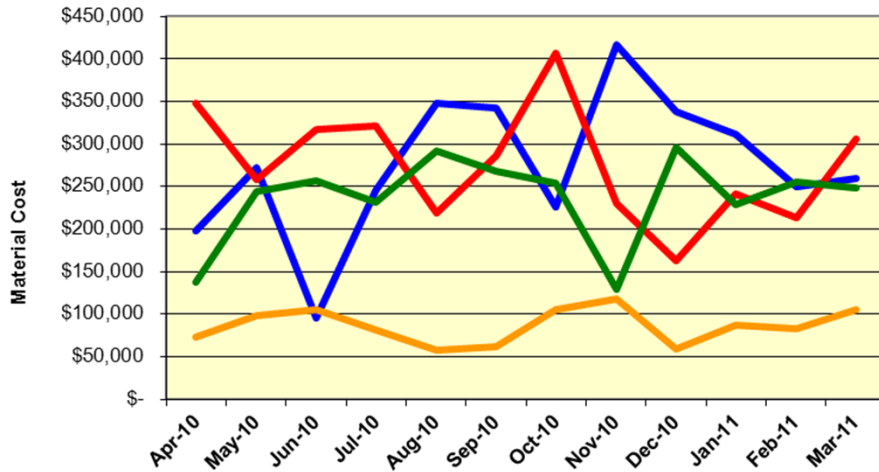
Panel etching

# Material and Labor Costs

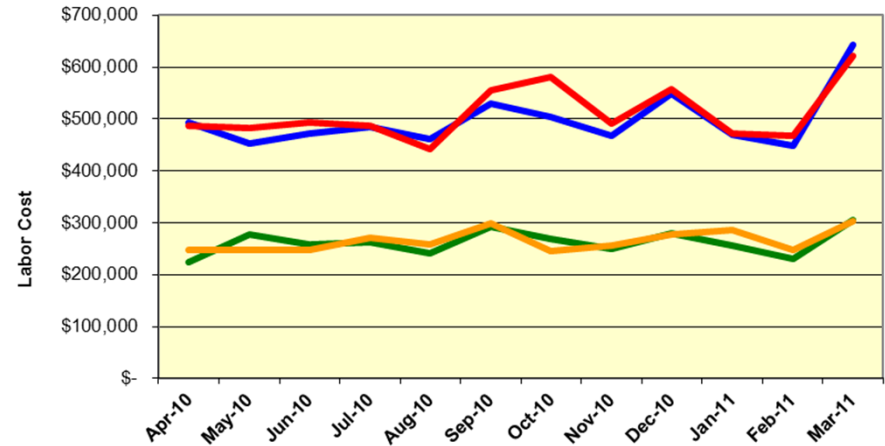
## March 2011

MATERIALS	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Blue Line	\$ 197,253	\$ 272,347	\$ 94,924	\$ 245,000	\$ 347,681	\$ 341,681	\$ 225,412	\$ 416,656	\$ 337,959	\$ 311,345	\$ 249,678	\$ 259,887
Red Line	\$ 348,088	\$ 258,558	\$ 317,139	\$ 321,375	\$ 219,030	\$ 285,906	\$ 406,465	\$ 230,298	\$ 162,960	\$ 240,990	\$ 213,323	\$ 305,345
Green Line	\$ 136,768	\$ 244,408	\$ 256,000	\$ 231,296	\$ 291,938	\$ 267,489	\$ 253,619	\$ 128,574	\$ 295,924	\$ 228,636	\$ 255,578	\$ 247,907
Gold Line	\$ 72,343	\$ 98,102	\$ 105,801	\$ 81,897	\$ 57,693	\$ 61,673	\$ 104,711	\$ 117,573	\$ 58,796	\$ 86,984	\$ 82,141	\$ 105,452
Totals	\$ 754,453	\$ 873,415	\$ 773,864	\$ 879,567	\$ 916,342	\$ 956,749	\$ 990,206	\$ 893,102	\$ 855,640	\$ 867,955	\$ 800,720	\$ 918,591

Material Costs



Labor Costs

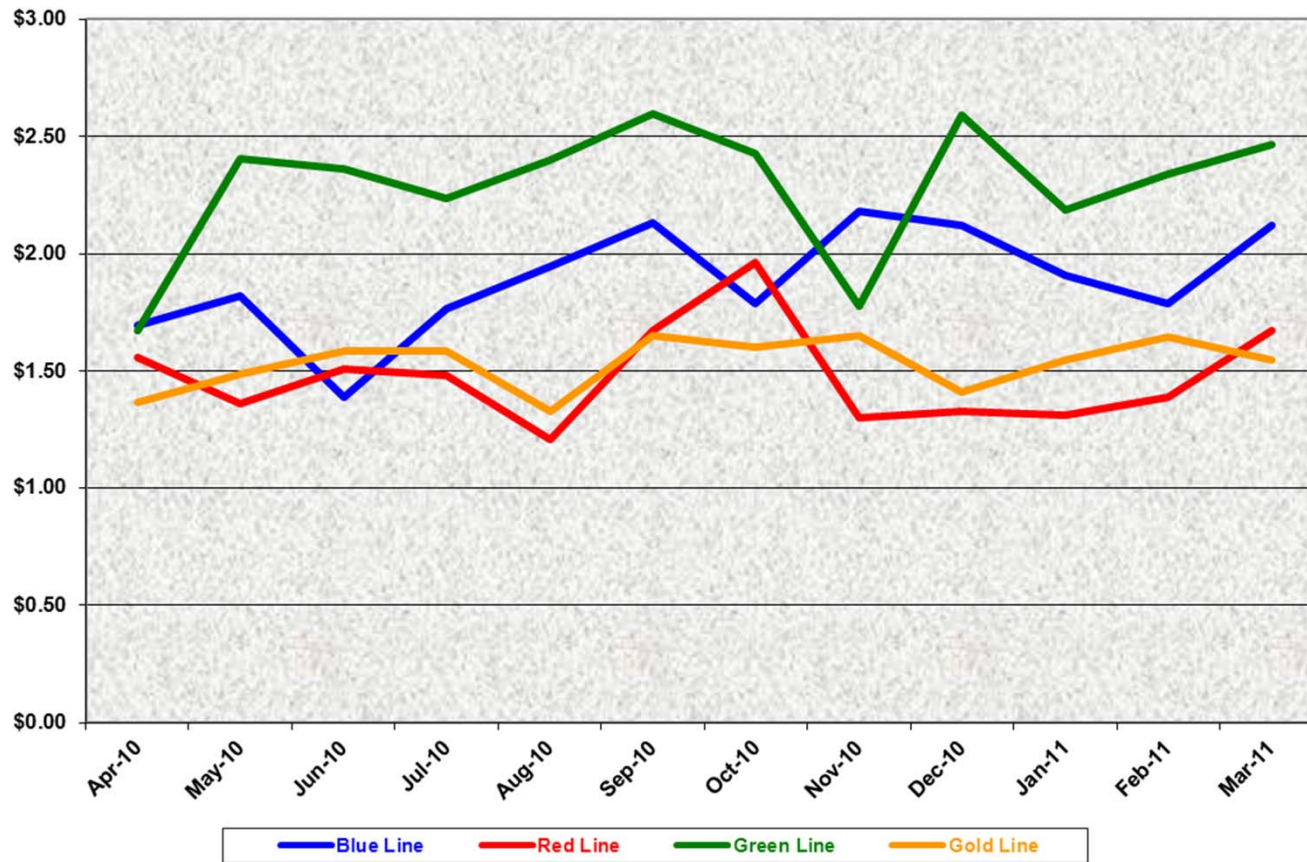


LABOR	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11
Blue Line	\$ 492,862	\$ 451,979	\$ 472,293	\$ 484,536	\$ 462,218	\$ 529,087	\$ 504,876	\$ 466,805	\$ 549,827	\$ 470,555	\$ 447,928	\$ 642,540
Red Line	\$ 487,627	\$ 482,974	\$ 492,936	\$ 487,742	\$ 442,482	\$ 555,982	\$ 581,709	\$ 491,124	\$ 556,636	\$ 472,105	\$ 467,849	\$ 622,201
Green Line	\$ 225,004	\$ 276,665	\$ 258,297	\$ 262,563	\$ 241,807	\$ 291,569	\$ 269,647	\$ 249,736	\$ 279,447	\$ 255,429	\$ 230,329	\$ 305,821
Gold Line	\$ 247,135	\$ 247,474	\$ 247,000	\$ 271,885	\$ 257,900	\$ 299,833	\$ 245,423	\$ 255,054	\$ 278,165	\$ 285,821	\$ 248,537	\$ 303,998
Totals	\$ 1,452,628	\$ 1,459,092	\$ 1,470,526	\$ 1,506,727	\$ 1,404,407	\$ 1,676,471	\$ 1,601,654	\$ 1,462,719	\$ 1,664,075	\$ 1,483,910	\$ 1,394,643	\$ 1,874,560



# Cost Per Mile March 2011

Cost per mile:	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Average
Blue Line	\$1.69	\$1.82	\$1.39	\$1.77	\$1.95	\$2.13	\$1.79	\$2.18	\$2.12	\$1.91	\$1.79	\$2.12	\$1.89
Red Line	\$1.56	\$1.36	\$1.51	\$1.48	\$1.21	\$1.67	\$1.96	\$1.30	\$1.33	\$1.31	\$1.39	\$1.67	\$1.48
Green Line	\$1.67	\$2.41	\$2.36	\$2.24	\$2.40	\$2.60	\$2.43	\$1.78	\$2.59	\$2.19	\$2.34	\$2.47	\$2.29
Gold Line	\$1.37	\$1.49	\$1.59	\$1.59	\$1.33	\$1.65	\$1.60	\$1.65	\$1.41	\$1.55	\$1.65	\$1.55	\$1.53



No facility costs are included

# Absences vs. Overtime

## March 2011

<b>ABSENCE TYPE and HOURS</b>	<b>3940</b>	<b>3941</b>	<b>3942</b>	<b>3943</b>	<b>3944</b>	<b>Total</b>
AWP-ABSENT W/O PERMISSION	0.00	0.00	0.00	0.00	16.00	16.00
BER-BEREAVEMENT	0.00	48.00	40.00	0.00	0.00	88.00
CTO-COMPENSATORY TIME OFF	8.00	329.00	244.00	156.07	128.00	865.07
CVA - CASUAL VACATION	0.00	0.00	496.00	0.00	144.00	640.00
DSL-DISABILITY LEAVE/LONG	0.00	184.00	184.00	328.00	360.00	1,056.00
EFH-EMG. FLOAT HOL.	0.00	0.00	40.00	40.00	0.00	80.00
ETO-EXCUSED TIME OFF	0.00	35.00	19.25	11.40	24.50	90.15
FML-FAMILY CARE LEAVE	0.00	103.00	448.00	248.00	208.00	1,007.00
HLF-HOLIDAY FLOATING	16.00	192.00	268.00	64.00	56.00	596.00
II-INDUSTRIAL INJURY	0.00	376.00	0.00	12.00	0.00	388.00
JUR-JURY DUTY	16.00	8.00	8.00	8.00	0.00	40.00
LC1-LABOR CODE 233	24.00	322.00	362.03	115.50	104.00	927.53
LTI-OCCPIL/LONGTRM INJ LEAVE	0.00	0.00	0.00	0.00	168.00	168.00
MLN-MILITARY ABSENCE-UNPAID	0.00	0.00	168.00	0.00	0.00	168.00
OWP-OFF WITH PERMISSION	0.00	0.00	23.30	0.00	7.43	30.73
RTO-REQUESTED TIME OFF-NO PAY	0.00	11.00	0.00	0.00	0.00	11.00
SCK-SICK PAY	24.00	184.00	120.00	101.42	140.00	569.42
SCW-SICK WITHOUT PAY	0.00	64.00	28.00	64.00	24.00	180.00
SPN-SCHOOL PARTNER NOT PAID	0.00	0.50	0.00	0.00	0.00	0.50
SUP-TEMPORARY SUPERVISOR	0.00	384.00	388.00	776.50	259.00	1,807.50
VAC-VACATION	40.00	168.00	168.00	100.00	122.00	598.00
<b>Total Absence Hours</b>	<b>128</b>	<b>2,409</b>	<b>3,005</b>	<b>2,025</b>	<b>1,761</b>	<b>9,327</b>
Number of Work Force (assigned)	<b>25</b>	<b>108</b>	<b>103</b>	<b>48</b>	<b>51</b>	<b>335</b>
Full Work Force hours/month	<b>4,333</b>	<b>18,716</b>	<b>17,850</b>	<b>8,318</b>	<b>8,838</b>	<b>58,056</b>
<b>Absence as a % of Work Force</b>	<b>3%</b>	<b>13%</b>	<b>17%</b>	<b>24%</b>	<b>20%</b>	<b>16%</b>
<b>OVERTIME TYPE and HOURS</b>	<b>3940</b>	<b>3941</b>	<b>3942</b>	<b>3943</b>	<b>3944</b>	<b>Total</b>
CTB-COMPENSATORY TIME TO BANK	0	121.33	46.83	41.16	28	237.32
OTP-PREM OVERTIME	163.5	1,437.93	981.41	1,353.27	1,031.26	4,967.37
WLO-Worked Lunch Overtime	1.50	23.00	42.50	92.00	60.50	219.50
<b>Total</b>	<b>165</b>	<b>1582</b>	<b>1071</b>	<b>1486</b>	<b>1120</b>	<b>5424</b>
<b>Overtime as a % of Work Force</b>	<b>4%</b>	<b>8%</b>	<b>6%</b>	<b>18%</b>	<b>13%</b>	<b>9%</b>
<b>UNCOVERED ABSENCES</b>	<b>3940</b>	<b>3941</b>	<b>3942</b>	<b>3943</b>	<b>3944</b>	<b>Total</b>
Absences FTE	1	14	17	12	10	54
OTP FTE	1	9	6	9	6	31
FTE Difference	<b>0</b>	<b>5</b>	<b>11</b>	<b>3</b>	<b>4</b>	<b>23</b>



# Rail Vehicle Engineering Project Summary

## March 2011

Major Projects	
A650 Refurbishment    Expo Readiness P865/P2000 Fleets    P2000 Signal Package Conversion    Protran Worker Protection Device	
P2000 Component Overhaul    P2550 Vehicle Acceptance    P3010 Vehicle Acquisition    MBL Overhaul    MBL Auxiliary Inverter Prototype	
Technical Specifications	
<b>MBL, MGL, MRL, MGDL (all fleets):</b>	P2000 HVAC Sutrak Units Overhaul    Systra Contract for Expo Fleet    MBL Articulation Bellow    P2000 Doors    P2000 Wheel/Axle Gear Box    Class B Wheel    Powered Axle Overhaul SOW
Active Test Bulletins	
<b>MBL (P865/P2020):</b>	Inspection interval investigation (5K-7.5K)    Door Capacitor    Replace GRS/TWC with H&K TWC    Horn    Journal Bearing    Motor Alternator
<b>MRL (A650 Base):</b>	DC-AC Traction Motor Blower    Blower Unit (L)    Coupler Shield    A21 Power Supply    A16A1 Board    Speed Sensor Removal
<b>MRL (A650 Option):</b>	Emergency door seal    Air Spring    Brushes    Motor Evaporator    Speed Sensor Removal    Traction Motor Safety Hanger
<b>MGDL (P2000):</b>	Luminator LED Destination Sign
<b>MGL (P2000):</b>	Door Operator Assembly    Electric Cabinet Cooling
Active Modification Bulletins	
<b>MBL (P865/P2020):</b>	Watch Gap, Wheelchair, Security Cameras    Battery Disconnect Decals    Gearbox Long Breather Tube    Flashing Circuit
<b>MBL (P2000):</b>	Add TWC Route Select Feature    No Acceleration during ATP Overspeed
<b>MRL (A650 Option/Base):</b>	Remove Trip Switch Wiring    Manual Controller Modification by American Transit    Front Door Latch    Replace End Door Threshold Plate    Dead Battery Start    Buss Bar Isolation    ATO Overspeed Brake Rate    Bracket Power Cable Protection
<b>MGL (P2000):</b>	Master Controller with New Cam Profiles    Removal of Convex Mirror Head    Protran 1 Wayside Worker Protection
<b>MGDL (P2000):</b>	Battery Disconnect Decals
Active Technical Request Form	
<b>MBL (P865/P2020):</b>	Destination Signs    Journal Bearing    Air Compressor Motor    Chopper Intake    Damper Assembly    Knorr Washer    Motor Alternator Set CB1 Tripping Problem    3-Way Valve    Berthing Bypass    Brake Disc Edges
<b>MRL (A650 Option/Base):</b>	ATO Berthing    Flender Gearbox    Coupler Corrosion Cover    Gate Drive Power Supply    Rectifier    Door Latching Relay    Twist Lug Connector    Thermistor & TLR Circuit Failures    PA System & Air Whistle/Horn Faults    Hand Assistance Strap    Contact Adhesive Flooring    Blower Motor Impeller    Snubber Capacitor    Vital Relays Calibration    Berthing Bypass
<b>MGL (P2000):</b>	Door Operator Assemble Repair Vendor    Air Vent Grille    Exterior Rear View Mirror    Sun Shade Gear Latch    EMI Trip Faults    HVAC Motor    Sunshade Gear Latch    Vital Relays Calibration
<b>MGDL (P2000/P2550):</b>	Truck Tramming Investigation    Operator Door Assembly Overhaul    Driver Cab Window Glass    Vital Relays Calibration

# P2550 Vehicle Acceptance Program

## March 2011

### Vehicle Status Update:

- 45 cars at Metro
- A total of 43 Cars Conditionally Accepted (CA)
- 5 Cars at Pittsburg Assembly Plant

### Engineering Activities Update:

- Event recorder – AB has recently contacted Faiveley to correct problems associated with the MVB communications; awaiting schedule to dispatch engineer to LA, qualification pending.
- Traction Motor HV Junction Box – 10 car sets completed/ installed, remaining parts due to arrive LA by 04/11.
- Brake Caliper Overhaul – 8 cars sets completed.
- Reliability Program – AB continues to review work order data, recent incidents include TCU, Friction Brakes, Doors and Controls, Communications, and Propulsion equipment. The program is on-going.
- ATP System – TWC software release 1.3 completed and awaiting release for implementation. ASTS further evaluating problems with multifunction PCB, Decelerometer and verify PCMCIA reported errors. Work is ongoing.

### Production Car Status – Pittsburg:

- Car 748 – 95% complete. Final inspection in progress.
- Car 749 - 95% complete. Preliminary testing started.
- Car 750 – 85% complete. Assembly in process.
- Cars 701& 702 - Re-configuration of car in process, rewiring and repining of cables 100 % complete.

### Project Management:

- No cars were Conditionally Accepted in March.
- Contract spares are in process and delivered to Metro. Estimated at 85% complete, critical parts not yet delivered.
- Daily and weekly meetings with AB Project Management to solve revenue service issues.
- Project Team negotiated 1 year extended warranty on the fleet in lieu of late manuals, some contract spare parts, and tools and equipment.

### Fleet Revenue Service Summary:

- 3.6 million miles since March 2008 - - 223,855 miles in March
- 10 mainline incidents, 3 caused by operator or passenger or NTF.



# QA-Warranty Program Projects Summary

## March 2011

### **ADMINISTRATION ACTIVITIES**

- Warranty Manual (2<sup>nd</sup> edition) - 35% complete
- QA Manual (2<sup>nd</sup> edition) - 30% complete
- DRAFT - Ultrasonic Testing General Procedures – Operation Bulletin 85% complete
- Gearbox Oil Management Program DRAFT-Service Bulletins completed (MGL, MBL, MRL & MGDL) pending Managers review
- “Management Audit Services” conducting a performance audit – stated objective “efficiency & effectiveness of maintenance on rail cars”.
- QA PMI Audits held in March MGL 22.5K, MRL 90K, and MBL 90K. MDGL PMI audit scheduled for next week.
- ERS daily administration support M3 data entry ongoing at all divisions.
- ERS leader ensures all reports and records are archived properly into QA-Warranty’s Share Drive.

### **RED LINE ACTIVITIES**

- Fleet warranty repairs - ABI 650 Base Buy & Option cars (T/M Mount Failures/Truck Frame Modification Campaign), Car 536 Axle #4, Truck SN#204, Car 528 Axle #1 Truck SN#001, Car 561 Axle #1 Truck SN#40, Car 562 Axle #2 Truck SN#51.
- QA engineering support - Technical Request investigations on Compressor Motors, T/M Bearings, Gear Boxes, Inverters, Ground Brushes, Coupler Head Cables & Brake Systems.
- QA Maintenance support – Troubleshoot Brakes, Propulsion System, HVAC, & Motor issues (cars 534, 573).
- First Article Inspections – Air Blowers (TB-6-0205, LH) closed
- Wabtec Air Actuator & Parking Brake witnessed new product installation (Fit, Form & Function) test - Car 587/588 & Car 597/598 test results satisfactory.
- QA conducted test & inspections on (5) Line Breakers, overhauled by “Eaton” (4 of 5 rejected) arranged to have Eaton on-site in order to point out QC & repair deficiencies.
- This months Cost Avoidance savings \$15,566.00 via warranty rework return parts, R&R processed parts & non usage of MTA labor-hours.

### **BLUE LINE ACTIVITIES**

- Expo Line TWC Project – man-power support on load testing propulsion system & data acquisition during off-peak hours. (Testing support ongoing)
- QA involvement support equipment overhauls, parts campaigns & obsolete equipment replacement research. Build-up necessary for 7 - 10 extended service. (Door Systems, Car Body, Lighting Systems, Car Interior, Gearbox, Journal Bearings, Chevron Springs)
- First Article inspections – new Transtechnik Inverter designed installed on Car 119, new software & voltage adjustments to meet Metro standards. Dahlbeck Traction Motor overhaul testing completed (45,000 miles) Car 146 Test Bulletin closed. Two Motor Alternators overhauled Ram Industrial tested satisfactory.

# QA-Warranty Program Projects Summary

## March 2011

### GREEN LINE ACTIVITIES

- QA support engineering - Technical Request investigations on Door Operations, Air Vent Grille, External Rear View Mirror, Sun Shade Gear Latch, EMI Trip Faults, HVAC Motors & Ground Contacts & Brake Systems.
- QA Maintenance - Troubleshoot Circuit Relays, Car Ventilation, Slew Rings, Inverters, Traction Motors, & Speed Sensors.
- FAI Electrical Cabinet Cooling Sys installation (2) DC Motor Cooling Fans being tested.
- QA P2550 car inspection, vehicle 732 moved from MBL to MGL, then moved to the MGD.

### GOLD LINE ACTIVITIES

- P2550 Project – Two video downloads requested for law enforcement & administration investigations.
- P2550 Contract Programs – QA conditional acceptance inspections made on vehicles 746 & 747.
- QA overseeing equipment testing, spare parts inspections & warranty conditions tracking. ABI Contract Spare deliveries – on going.
- Inspected & tested Knorr Brake Valve Test Bench (BVTB) test passed & commissioned. The BVTB is installed at MBL.
- P2550 Project documentation & contract deliverable data records are up-to-date.
- QA & Warranty support being given to both ABI & RFSTS engineering resolving car acceptance issues.
- This month's Cost Avoidance savings \$101,884.80 via warranty rework return parts, R&R processed parts & non usage of MTA labor-hours.

# Rail Fleet Services Instruction

## March 2011

### Training classes completed during the month of March 2011

Description	Status	Start	End	Course Hours	Student Count	Training Hours
<b>Blue Line Training - (865/2020 &amp; P2000 LRV):</b>						
RECORDS MANAGEMENT & INFORMATION SECURITY	Complete	3/31/2011	3/31/2011	3	3	9
INTERVIEW PREPARATION	Complete	3/30/2011	3/30/2011	2	1	2
RFS SIEMENS 2000 VEHICLE COURSE	Complete	3/1/2011	3/24/2011	152	7	1064
BOL LINE 485	Complete	3/9/2011	3/9/2011	2	1	2
TRANSIT TERRORISM AWARENESS TRAINING	Complete	3/23/2011	3/23/2011	1	1	1
Electrical Safety (Video)	Complete	3/2/2011	3/2/2011	2	1	2
FIRST TIME SUPERVISION	Complete	3/9/2011	3/10/2011	10	1	10

**Total Blue Line Training (Hours): 1090**

#### **Red Line Training (Breda A650 HRV):**

PR EMPLOYEE SELF-SERVICE TRAINING	Complete	3/9/2011	3/9/2011	1	1	1
SEXUAL HARASSMENT PREVENTION, TITLE VI AND VII	Complete	3/6/2011	3/6/2011	2.5	1	2.5
DRUG & ALCOHOL REASONABLE SUSPIC. DETERMIN.	Complete	3/1/2011	3/1/2011	4	1	4

**Total Red Line Training (Hours): 7.5**

#### **Green Line Training (P2000 LRVs):**

RFS SIEMENS 2000 COMMUNICATIONS	Complete	3/23/2011	3/24/2011	16	1	16
RFS SIEMENS 2000 VEHICLE COURSE	Complete	3/1/2011	3/23/2011	56	2	112
RFS SIEMENS 2000 PANTOGRAPH	Complete	3/11/2011	3/11/2011	8	1	8
RFS SIEMENS 2000 LIGHTS & DEST. SIGNS	Complete	3/9/2011	3/10/2011	8	1	8
RFS SIEMENS 2000 HVAC	Complete	3/1/2011	3/7/2011	64	1	64
FIS 111 GL INQUIRY	Complete	3/17/2011	3/17/2011	3	1	3
GET ORGANIZED FOR PEAK PERFORMANCE - PART 2	Complete	3/3/2011	3/3/2011	3	1	3
PRE-SUPERVISORY TRAINING	Complete	3/14/2011	3/31/2011	14	3	42
RAIL SYSTEM SAFETY	Complete	3/30/2011	3/30/2011	3	1	3

**Total Green Line Training (Hours): 256**

#### **Gold Line Training (P2550 LRVs):**

RFS ANSALDOBREDA 2550 FRICTION BRAKES	Complete	3/21/2011	3/25/2011	40	3	120
RFS ANSALDOBREDA 2550 PROPULSION	Complete	3/7/2011	3/18/2011	80	3	240
RFS ANSALDOBREDA 2550 COMMUNICATIONS	Complete	3/2/2011	3/4/2011	24	2	48
RFS ANSALDOBREDA 2550 COUPLER	Complete	3/1/2011	3/1/2011	12	3	36
WAYSIDE WORKER PROTECTION	Complete	3/3/2011	3/22/2011	4	6	24
DRUG AND ALCOHOL REASONABLE SUSPICION DETERMIN	Complete	3/1/2011	3/1/2011	4	1	4

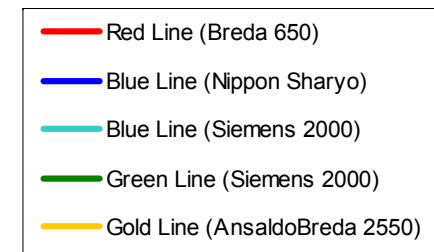
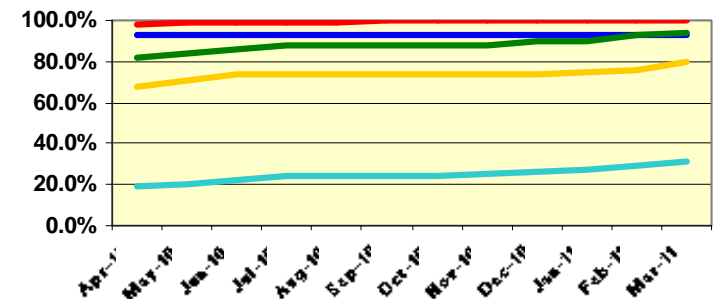
**Total Gold Line Training (Hours): 472**

**Total Rail Fleet Services Instruction for the month of March 2011 (Hours): 1,825.5**

#### **Core Vehicle Training Completed:**

	BLUE	RED	GREEN	GOLD
Percentage of core vehicle training complete:	92.8%	99.5%	93.9%	79.9%
Siemens 2000 training complete:	31.3%	N/A	N/A	N/A
Average Specialist Rail Experience Level in Years:	11.5	11.4	8.4	9.6

### **Core Training Completed**



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



**Metro**