



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

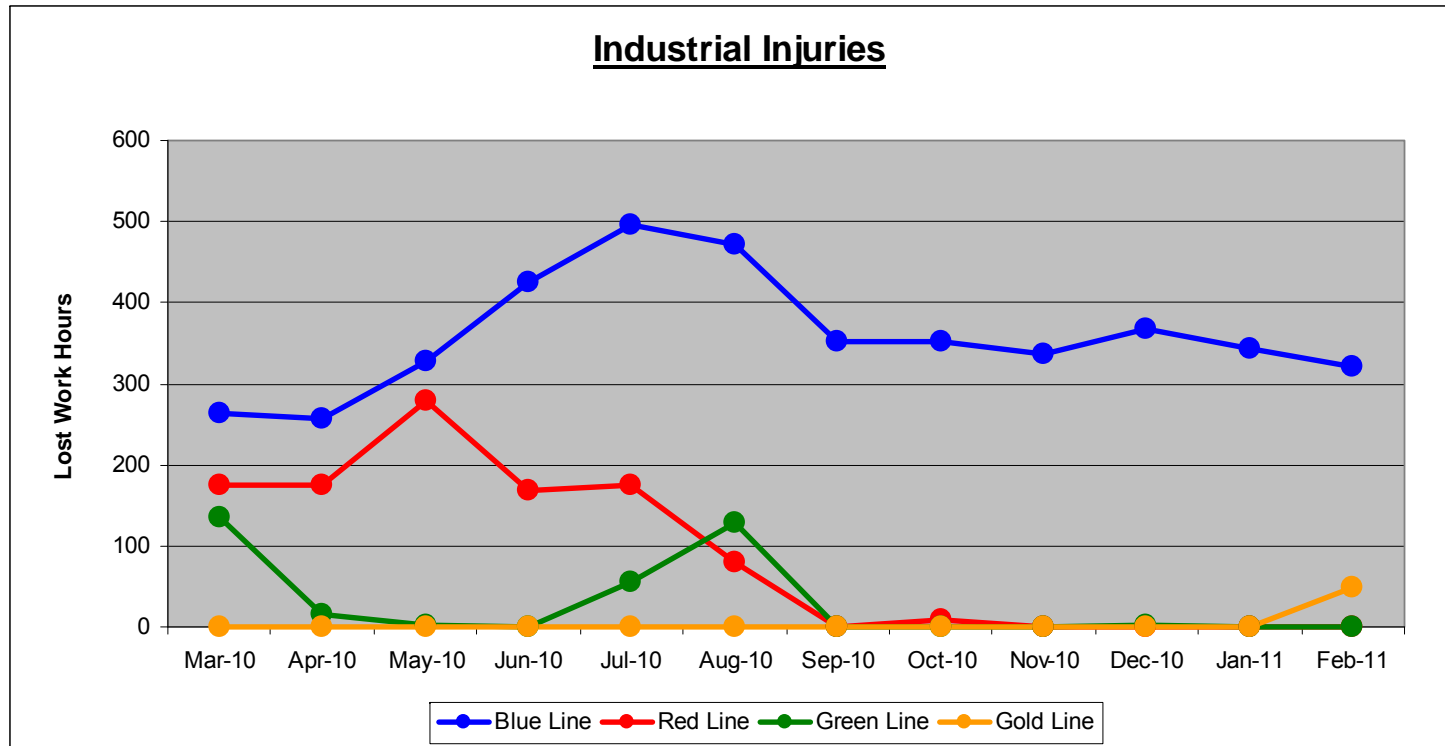


**Metro**

# Table of Contents

•	Safety	
–	Industrial Injuries	Page 1
–	Rail Vehicle Accidents & Major Incidents	Page 2
•	Customer Service	
–	Service Delivery – AM/PM Pull-Outs	Page 3
–	Vehicle Utilization – Blue Line & Green Line	Page 4
–	Vehicle Utilization – Red Line & Gold Line	Page 5
–	Mean Miles Between Failures (Major)	Page 6
–	Repeat Failures (Major)	Page 7
•	Business Processes	
–	Reported Incidents	Page 8
–	Preventative Maintenance Compliance	Page 9
•	Finance	
–	Vandalism & Graffiti Costs	Page 10
–	Graffiti Pictures	Page 11
–	Material & Labor Costs	Page 12
–	Cost per mile	Page 13
–	Absence vs. Overtime	Page 14
•	Engineering	
–	Rail Vehicle Engineering Project Summary	Page 15
–	P2550 Vehicle Acceptance Program	Page 16
•	Quality Assurance	
–	Warranty Program Projects Summary	Page 17
•	Growth	
–	Rail Fleet Services Training	Page 18
–	Rail Fleet Services Training Evaluations	Page 19

# Industrial Injuries – Lost Work Hours February 2011



	Employees		February 2011 Lost Work Hours			
	Assigned	Active	Service Attendant	Maint. Specialist	Body Repairer /Painter	Total Hrs.
Blue Line	109	106	0	160	160	320
Red Line	104	101	0	0	0	0
Green Line	45	42	0	0	0	0
Gold Line	51	48	48	0	0	48
Admin	5	5	0	0	0	0
Totals	314	302	48	160	160	368

# Rail Vehicle Accidents & Major Incidents

## February 2011

Repair Costs	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Totals
Blue Line	\$11,305	\$2,100	\$5,705	\$2,050	\$36,498	\$50,124	\$916	\$4,781	\$10,716	\$16,938	\$961	\$2,114	\$144,208
Red Line	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$562	\$0	\$0	\$562
Green Line	\$0	\$0	\$4,799	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,799
Gold Line	\$0	\$0	\$3,523	\$0	\$653	\$0	\$441	\$4,286	\$3,016	\$1,374	\$239	\$13	\$13,545
Totals	\$11,305	\$2,100	\$14,027	\$2,050	\$37,151	\$50,124	\$1,357	\$9,067	\$13,732	\$18,874	\$1,200	\$2,127	\$163,114

Rail Vehicle Accident Costs - February 2011				
Metro Blue Main Line				
Date	Incident #	Problem code	Incident Description	Cost
2/4/2011	1983943	(10-73) Train vs.Vehicle	Train #13 T-212 reports 10-73, Cars (109A)-104-117 at Washington & Central northbound.	\$354.00
2/4/2011	1983943	(10-73) Train vs Auto	Auto made left turn into train Central & Washington 109a-104-117	\$189.00
2/7/2011	1984638	(10-72) Train vs.Pedestrian	Cyclist veered into train at Washington & Maple, Train 9, T-167, Track 2, southbound. 163b-146-126	\$271.00
2/14/2011	1986631	(10-71) Train vs.Object	Train vs. Bicycle, Imperial station, track 2, southbound. 132b	\$0.00
2/14/2011	1986706	(10-71) Train vs Other	Missile vs Windshield at Artesia & Greenleaf 147a-138-105	\$861.00
2/19/2011	1988305	(10-71) Train vs.Other	Train 10, T-66, Loose skirt on car 134A made contact with platform at Imperial station. 134-145-160.	\$33.00
2/22/2011	1988890	(10-72) Train vs.Pedestrian	Fatality at 103rd st, Train 3 southbound track 2, T-200 (122A)-128-162	\$406.00
2/22/2011	1989995	(10-75) Derailment	Derailment in Blue Line yard at the Twin Towers, T-255	\$0.00
TOTAL FOR METRO BLUE LINE				\$2,114.00
Metro Gold Line				
Date	Incident #	Problem code	Incident Description	Cost
2/21/2011	1988594	(10-71) Train vs.Object	Train 4 (238-236), T-178 Soto station struck object.	\$13.00
TOTAL FOR METRO GOLD LINE				13.00
GRAND TOTAL				2,127.00
(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 February 2011

## Cars Available for AM/PM Pull-Outs

### Blue Line – Fleet Size 69 cars

Weekday pull-out: 60 cars

Weekend pull-out: 36 cars

**Monthly Mileage: 390,025 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: 490,516 miles**

### Green Line – Fleet Size 29 cars

Weekday pull-out: 22 cars

Weekend pull-out: 14 cars

**Monthly Mileage: 200,937 miles**

### Gold Line – Fleet Size 51 cars

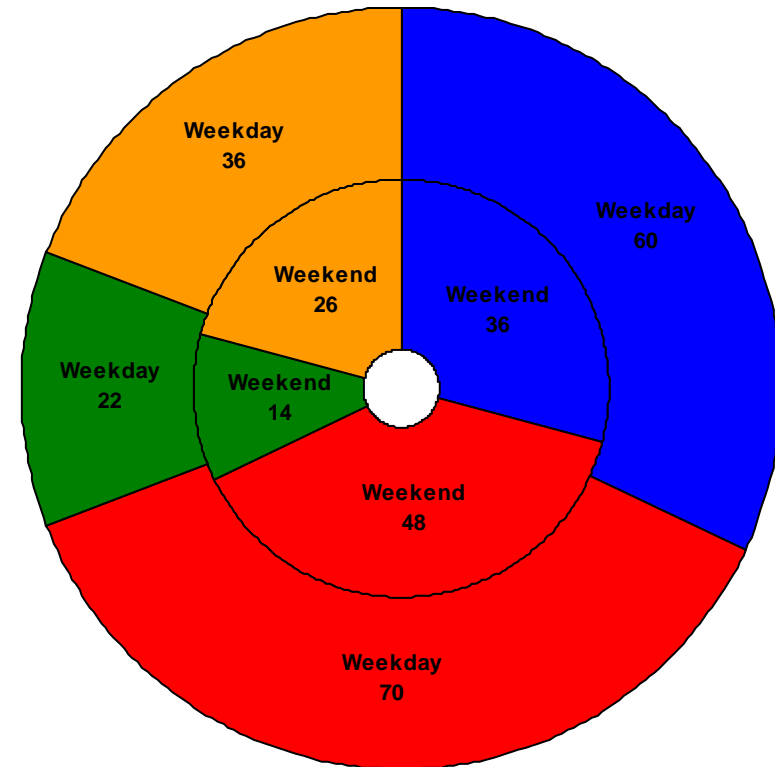
#### P2550 – Fleet Size 43 cars

#### P2000 – Fleet Size 8 cars

Weekday pull-out: 36 cars

Weekend pull-out: 26 cars

**Monthly Mileage: 207,855 miles**

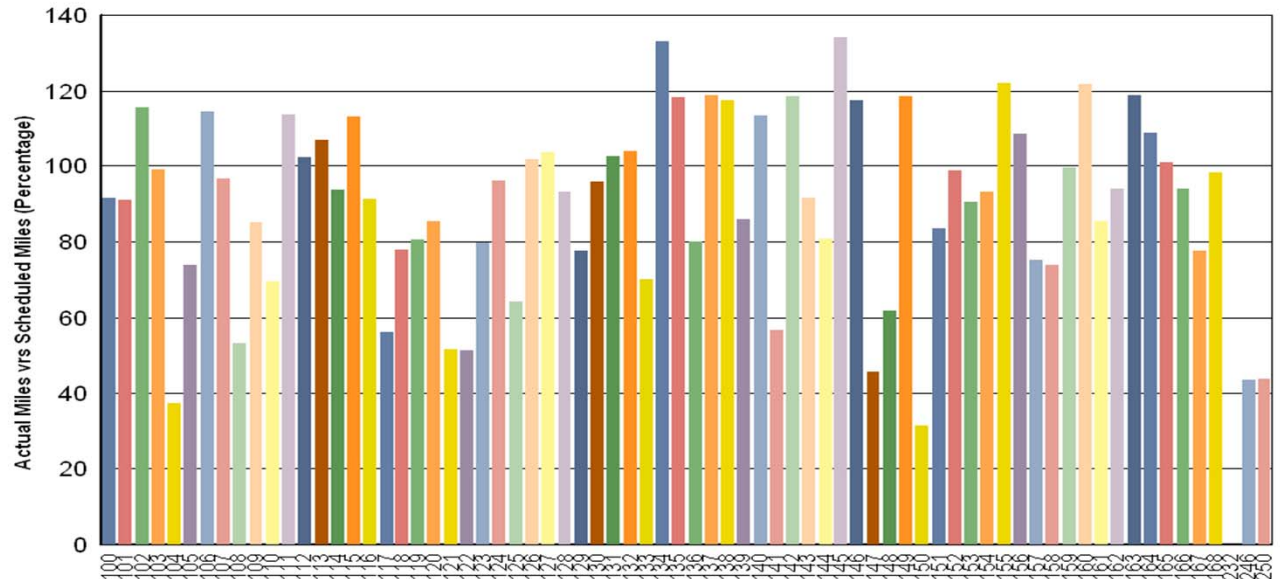


# Vehicle Utilization February 2011

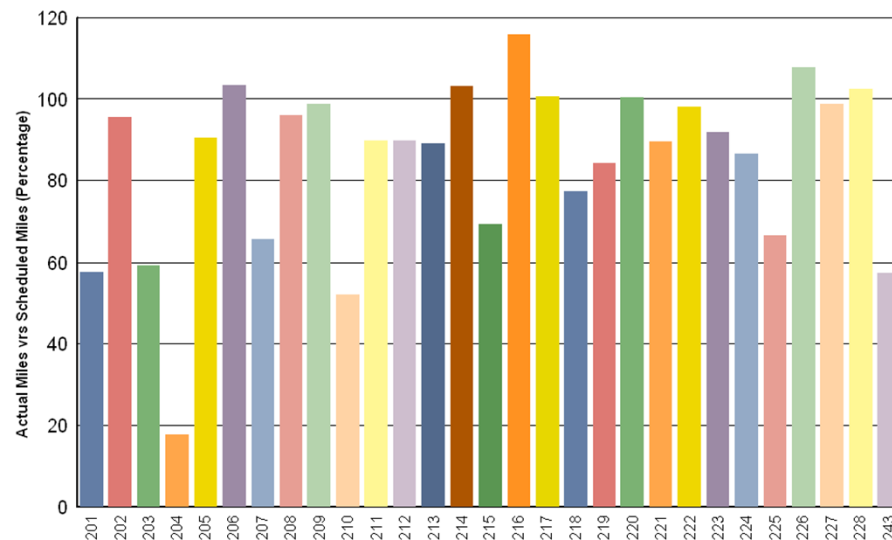
**Blue Line – The entire Expo Fleet (all 15 cars) are not in revenue service at this time, but may be listed due to training and testing. Mileage will be minimal each month until Expo opens.**

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

**Metro Blue Line**



**Metro Green Line**



**Green Line – Vehicle 207 out of service due to inspection and overhaul work. Vehicle 219 out of service due to prop faults, flat spots, and parking brake problems.**

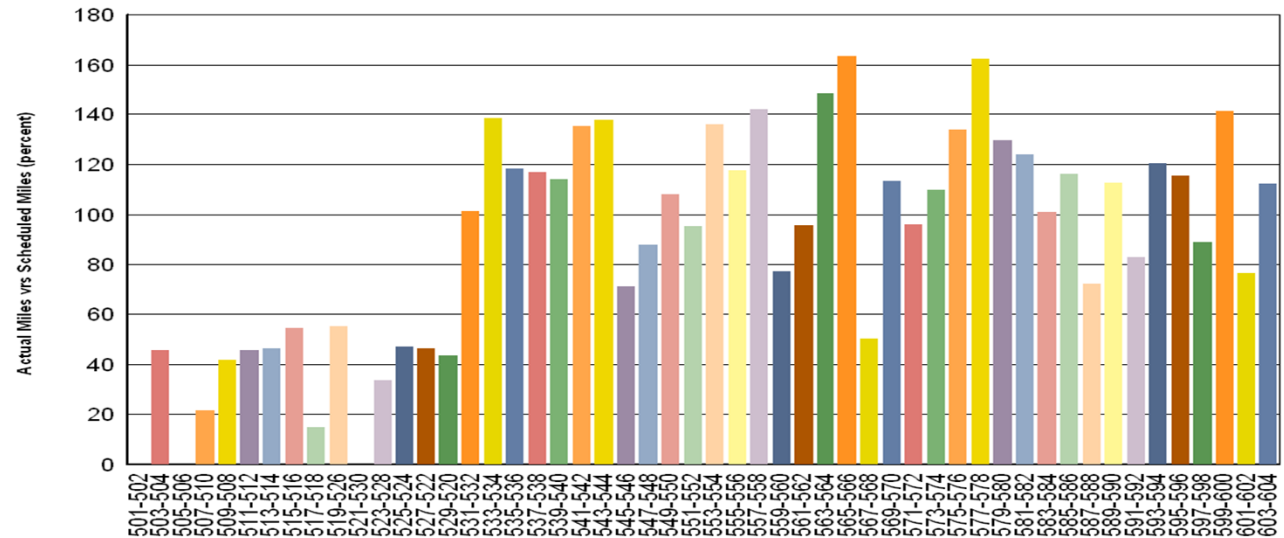
# Vehicle Utilization February 2011

**Red Line – Vehicles 501-502, 505-506, 517-518, 521-530, and 523-528 are flagged as low vehicle utilization due to Base-Buy fleet having propulsion and brake problems.**

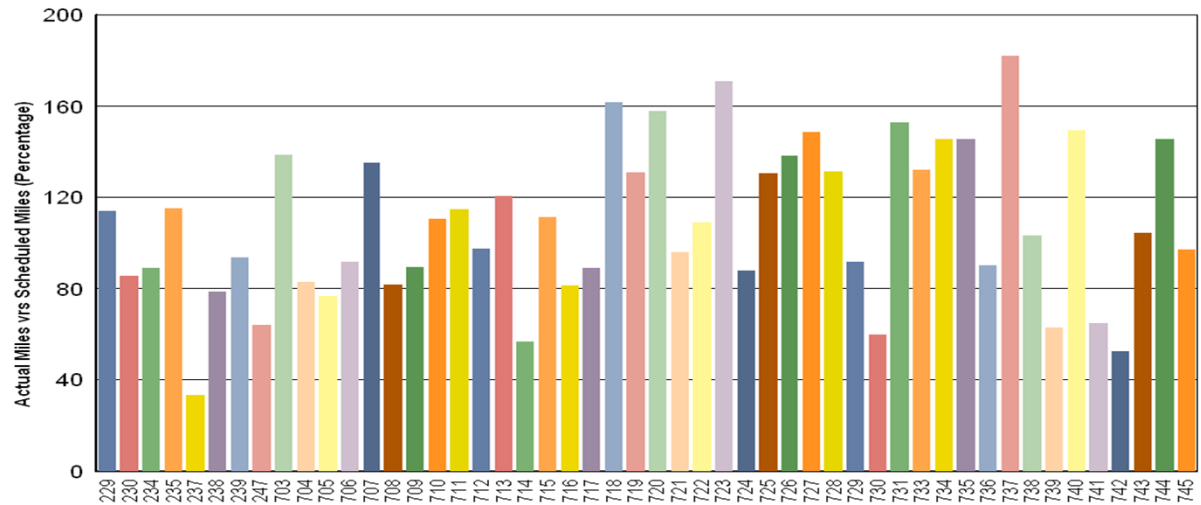
***Percentage includes an average 4% mileage deduction for Yard mileage and Vehicle Testing.***

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

**Metro Red Line**

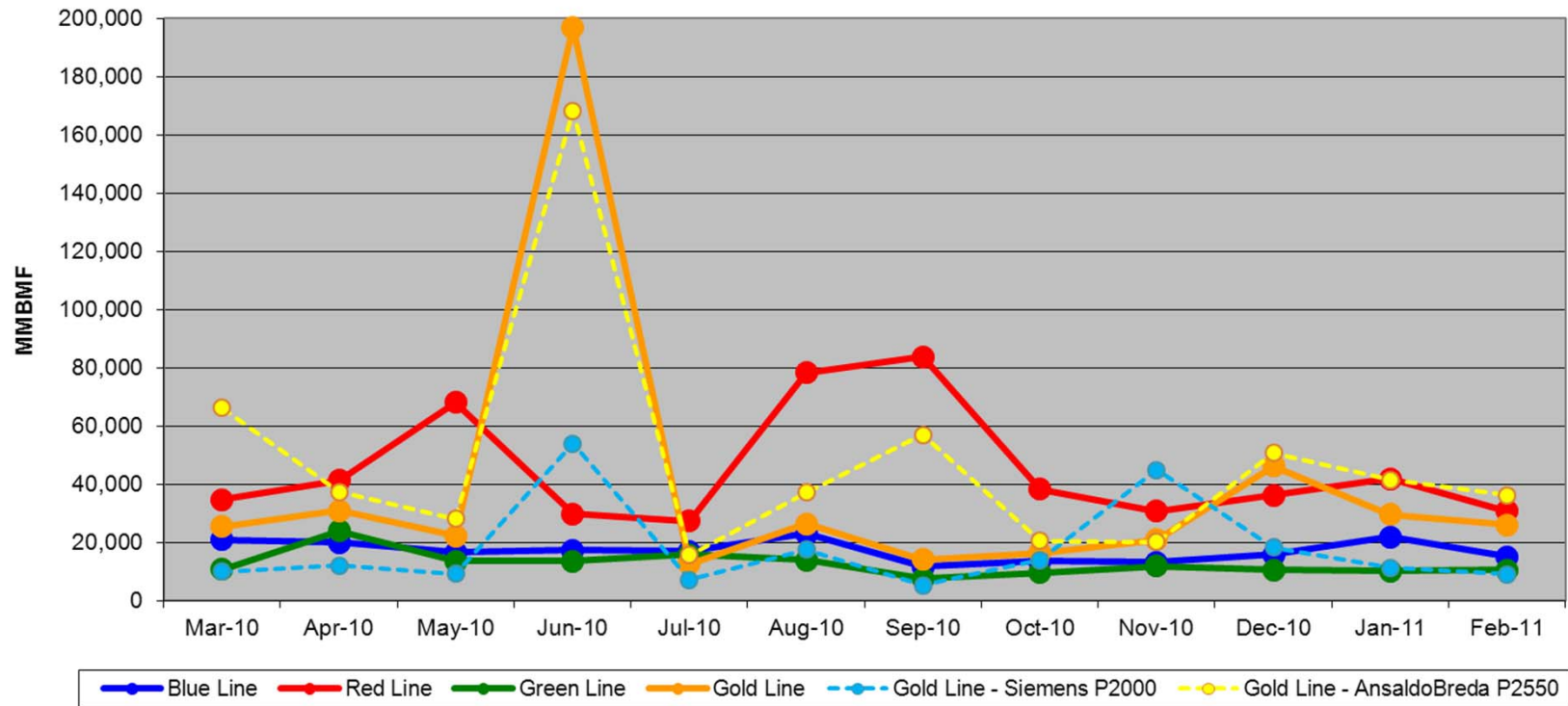


**Metro Gold Line**



# Mean Miles Between Failures (Major) February 2011

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

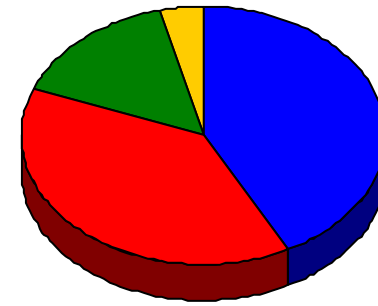


	Total Vehicle Miles	Major Failures	Minor Failures	Total System Failures	No Problem Found	No Problem Found (%)	Total Reported Failures	MMBF (Major)	MMBF (Minor)	MMBF (TOTAL)
<b>Feb-11</b>										
Blue Line	390,025	26	93	119	27	23%	119	15,001	4,194	3,278
Red Line	490,516	16	144	160	31	19%	160	30,657	3,406	3,066
Green Line	200,937	19	57	76	13	17%	76	10,576	3,525	2,644
Gold Line	207,855	8	66	74	15	20%	74	25,982	3,149	2,809
P2000	26,757	3	15	18	3	17%	18	8,919	1,784	1,487
P2550	181,098	5	51	56	12	21%	56	36,220	3,551	3,234



# Repeat Failures (Major) February 2011

**Metro Blue Line:** 11 Repeat Failures  
**Metro Red Line:** 10 Repeat Failures  
**Metro Green Line:** 4 Repeat Failures  
**Metro Gold Line:** 1 Repeat Failure



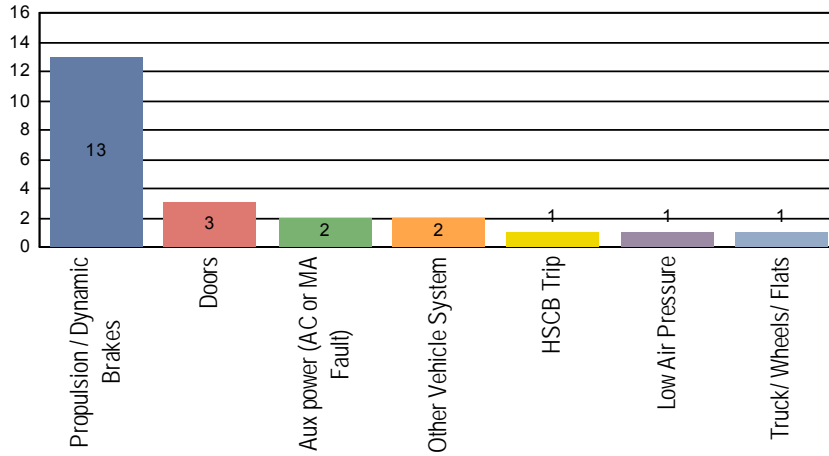
■ Blue Line 
 ■ Red Line 
 ■ Green Line 
 ■ Gold Line

Repeater Car Details - February 2011								
System	Blue Line		Red Line		Green Line		Gold Line	
	Car #	Repeats	Car #	Repeats	Car #	Repeats	Car #	Repeats
Automated Train Protection	151	1			207	1		
Doors			579	1	221	1	745	1
			596	3				
Friction Brakes			526	1				
Propulsion/Dynamic Brake	101	1	538	1	203	1		
	151	3	540	2	209	1		
	167	3						
	168	3						
Radio			603	1				
Trucks			587	1				
<b>TOTALS</b>	<b>11</b>		<b>10</b>		<b>4</b>		<b>1</b>	

# Major Incidents February 2011

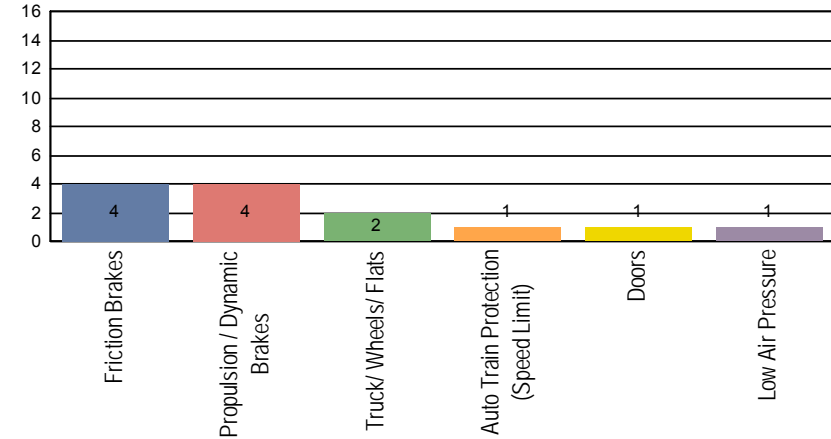
## Metro Blue Line

Major Incident Problem Codes



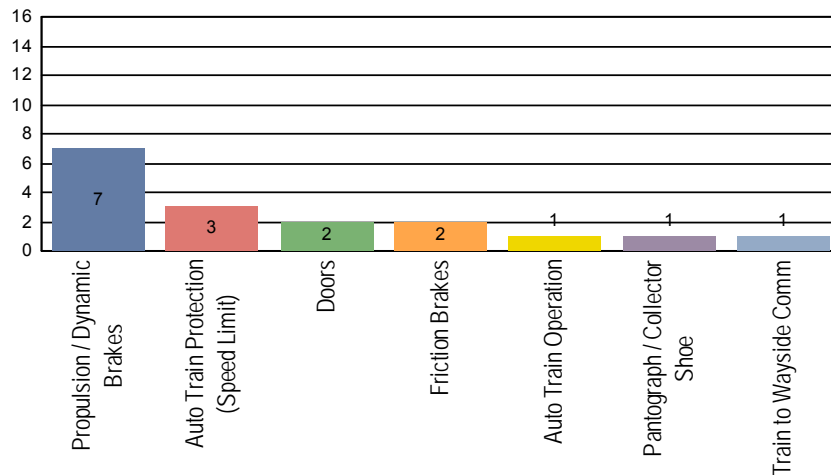
## Metro Red Line

Major Incident Problem Codes



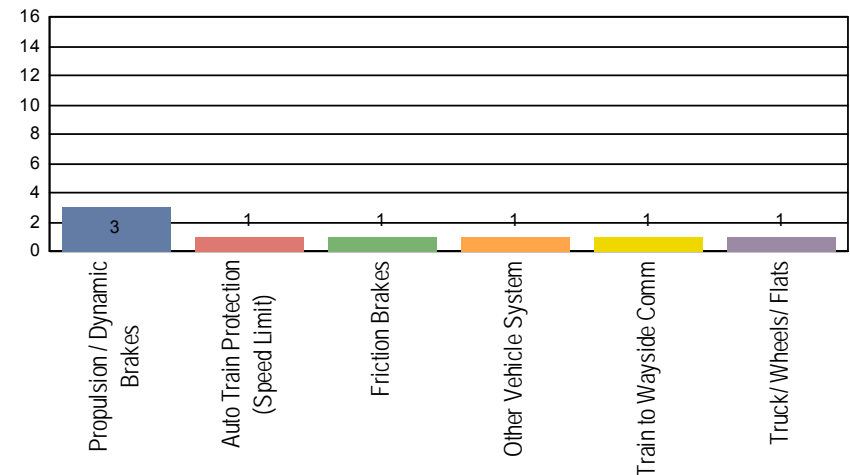
## Metro Green Line

Major Incident Problem Codes



## Metro Gold Line

Major Incident Problem Codes



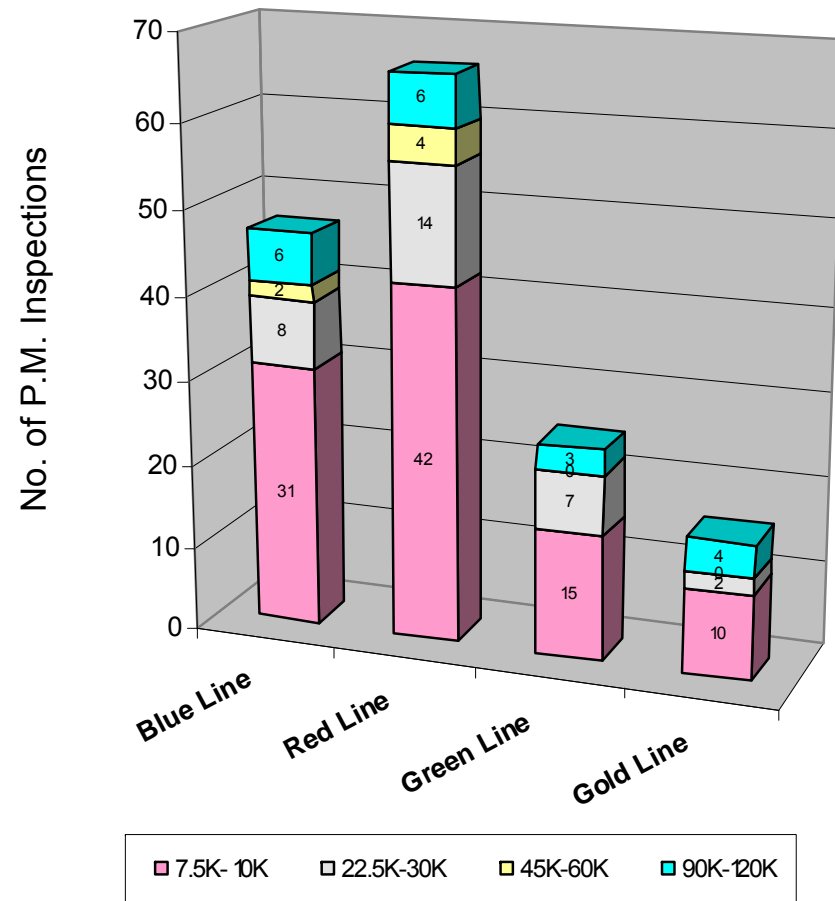
# Preventative Maintenance Compliance

## February 2011

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

February 2011 Preventative Maintenance Inspections

No. of P.M. Inspections	7.5K- 10K	22.5K- 30K	45K-60K	90K-120K	Totals
Blue Line	31	8	2	6	47
Red Line	42	14	4	6	66
Green Line	15	7	0	3	25
Gold Line	10	2	0	4	16
Totals:	98	31	6	19	154

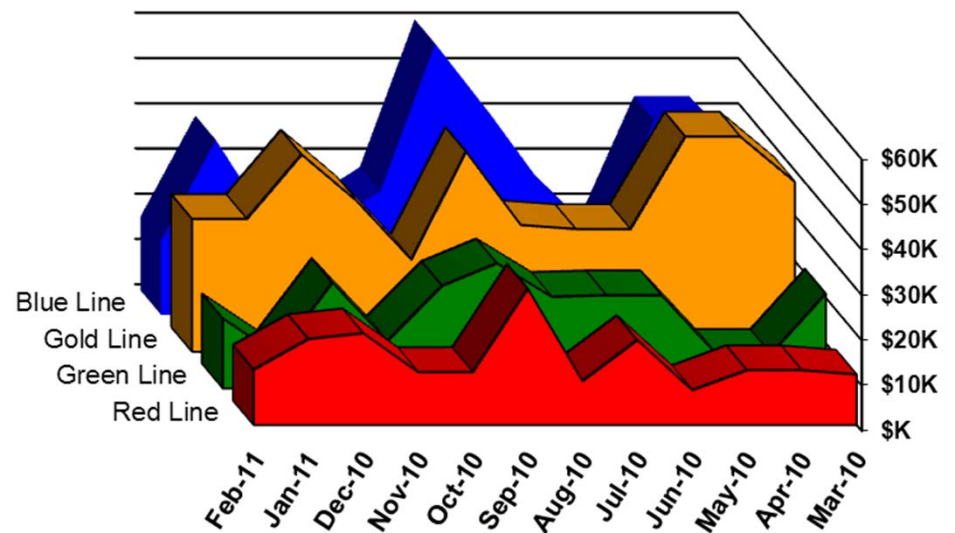


# Vandalism & Graffiti Report

## February 2011

	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Year-to-Date
Blue Line	\$31K	\$43K	\$43K	\$16K	\$28K	\$44K	\$60K	\$27K	\$19K	\$20K	\$39K	\$16K	\$386K
Red Line	\$11K	\$12K	\$12K	\$8K	\$19K	\$10K	\$30K	\$12K	\$12K	\$20K	\$19K	\$12K	\$177K
Green Line	\$21K	\$8K	\$8K	\$21K	\$21K	\$20K	\$28K	\$23K	\$10K	\$23K	\$7K	\$15K	\$204K
Gold Line	\$37K	\$48K	\$48K	\$27K	\$27K	\$28K	\$44K	\$20K	\$33K	\$44K	\$29K	\$29K	\$415K
Totals:	\$100K	\$110K	\$110K	\$71K	\$94K	\$102K	\$162K	\$82K	\$75K	\$107K	\$94K	\$73K	\$1,182K

February 2011 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows replaced	18	\$2,457	\$2,909	\$5,366
Vandal Shields	569	\$42,907	\$7,332	\$50,239
Graffiti removal - other	841	\$5,033	\$0	\$5,033
Seats Cleaned	672	\$4,182	\$0	\$4,182
Seats Replaced	806	\$4,726	\$4,684	\$9,410
Ext/Int Repairs	0	\$0	\$0	\$0
Exterior Graffiti Clean	0	\$0	\$0	\$0
Totals for February 2011		\$59,305	\$14,925	\$74,231



# Graffiti Pictures February 2011

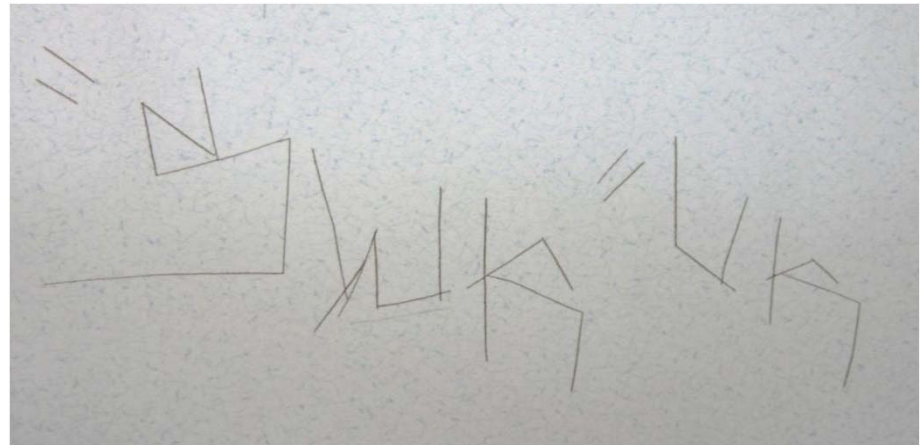
A - Metro Blue Line



B - Metro Green Line



C - Metro Gold Line



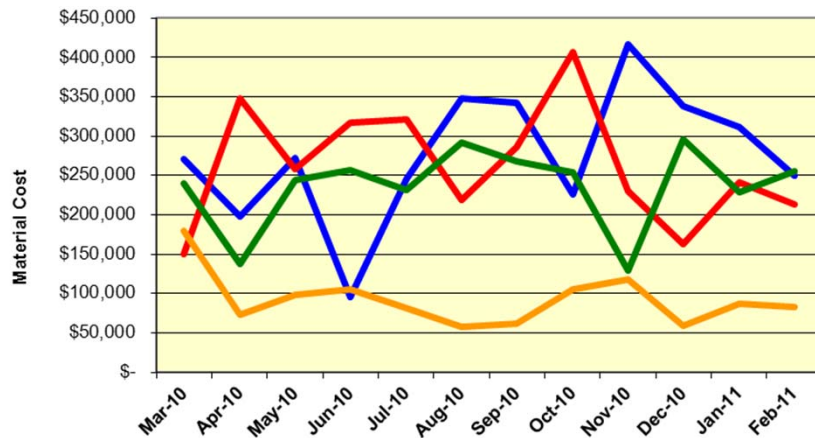
Panel etching

# Material and Labor Costs

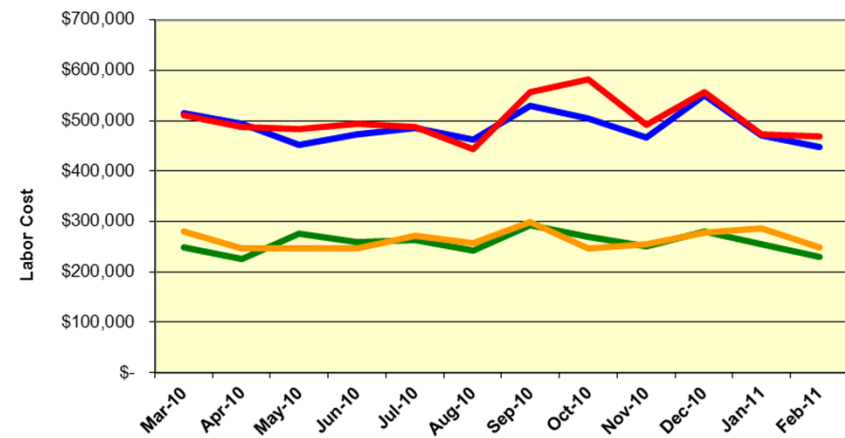
## February 2011

MATERIALS	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11
Blue Line	\$ 270,743	\$ 197,253	\$ 272,347	\$ 94,924	\$ 245,000	\$ 347,681	\$ 341,681	\$ 225,412	\$ 416,656	\$ 337,959	\$ 311,345	\$ 249,678
Red Line	\$ 149,720	\$ 348,088	\$ 258,558	\$ 317,139	\$ 321,375	\$ 219,030	\$ 285,906	\$ 406,465	\$ 230,298	\$ 162,960	\$ 240,990	\$ 213,323
Green Line	\$ 240,194	\$ 136,768	\$ 244,408	\$ 256,000	\$ 231,296	\$ 291,938	\$ 267,489	\$ 253,619	\$ 128,574	\$ 295,924	\$ 228,636	\$ 255,578
Gold Line	\$ 179,658	\$ 72,343	\$ 98,102	\$ 105,801	\$ 81,897	\$ 57,693	\$ 61,673	\$ 104,711	\$ 117,573	\$ 58,796	\$ 86,984	\$ 82,141
Totals	\$ 840,315	\$ 754,453	\$ 873,415	\$ 773,864	\$ 879,567	\$ 916,342	\$ 956,749	\$ 990,206	\$ 893,102	\$ 855,640	\$ 867,955	\$ 800,720

Material Costs



Labor Costs

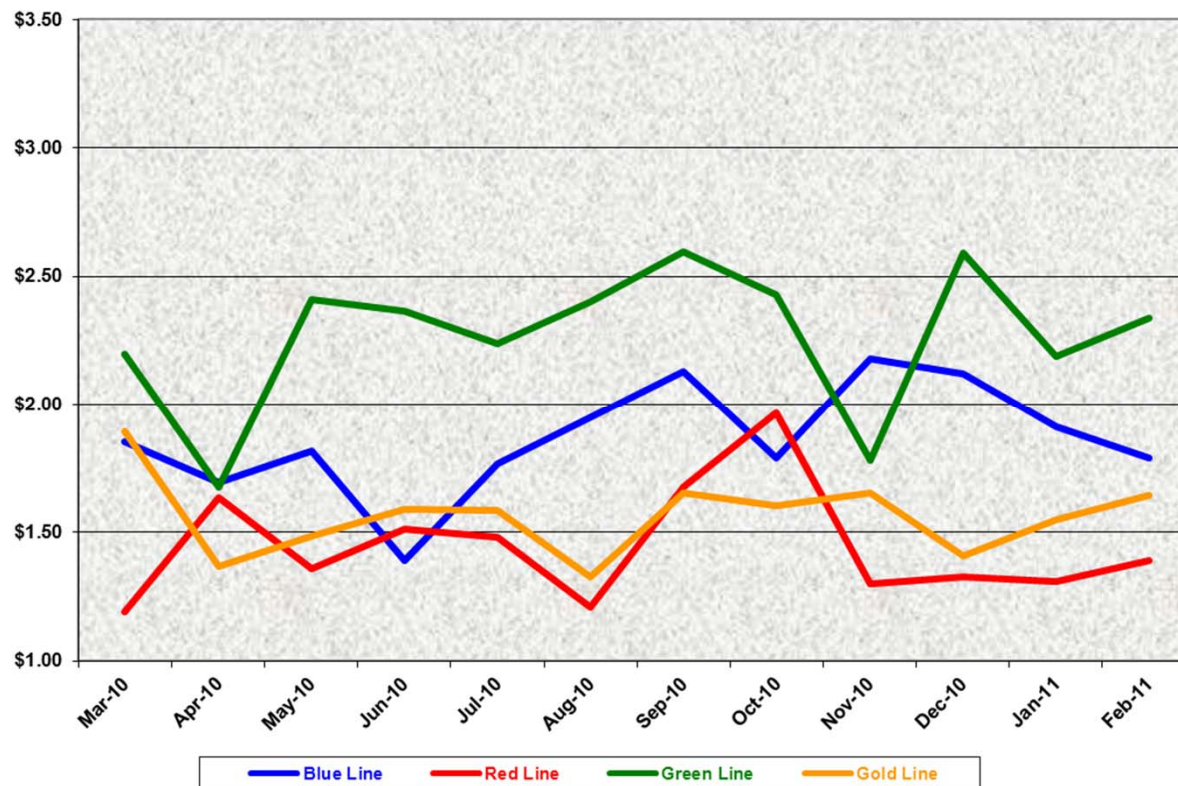


LABOR	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11
Blue Line	\$ 515,305	\$ 492,862	\$ 451,979	\$ 472,293	\$ 484,536	\$ 462,218	\$ 529,087	\$ 504,876	\$ 466,805	\$ 549,827	\$ 470,555	\$ 447,928
Red Line	\$ 510,664	\$ 487,627	\$ 482,974	\$ 492,936	\$ 487,742	\$ 442,482	\$ 555,982	\$ 581,709	\$ 491,124	\$ 556,636	\$ 472,105	\$ 467,849
Green Line	\$ 248,224	\$ 225,004	\$ 276,665	\$ 258,297	\$ 262,563	\$ 241,807	\$ 291,569	\$ 269,647	\$ 249,736	\$ 279,447	\$ 255,429	\$ 230,329
Gold Line	\$ 279,935	\$ 247,135	\$ 247,474	\$ 247,000	\$ 271,885	\$ 257,900	\$ 299,833	\$ 245,423	\$ 255,054	\$ 278,165	\$ 285,821	\$ 248,537
Totals	\$ 1,554,128	\$ 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



# Cost Per Mile February 2011

Cost per mile:	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Average
Blue Line	\$1.85	\$1.69	\$1.82	\$1.39	\$1.77	\$1.95	\$2.13	\$1.79	\$2.18	\$2.12	\$1.91	\$1.79	\$1.87
Red Line	\$1.19	\$1.64	\$1.36	\$1.51	\$1.48	\$1.21	\$1.67	\$1.96	\$1.30	\$1.33	\$1.31	\$1.39	\$1.45
Green Line	\$2.20	\$1.67	\$2.41	\$2.36	\$2.24	\$2.40	\$2.60	\$2.43	\$1.78	\$2.59	\$2.19	\$2.34	\$2.27
Gold Line	\$1.89	\$1.37	\$1.49	\$1.59	\$1.59	\$1.33	\$1.65	\$1.60	\$1.65	\$1.41	\$1.55	\$1.65	\$1.56



No facility costs are included

# Absences vs. Overtime

## February 2011

ABSENCE TYPE and HOURS	3940	3941	3942	3943	3944	Total
AWP-ABSENT W/O PERMISSION	0.00	0.00	0.00	0.00	16.00	16.00
CTO-COMPENSATORY TIME OFF	0.00	265.00	232.00	128.67	82.00	707.67
CVA - CASUAL VACATION	16.00	0.00	564.00	0.00	108.00	688.00
DSL-DISABILITY LEAVE/LONG	0.00	160.00	160.00	72.00	8.00	400.00
EFH-EMG. FLOAT HOL.	0.00	8.00	80.00	24.00	8.00	120.00
ETO-EXCUSED TIME OFF	0.50	28.97	11.43	6.00	22.50	69.40
FML-FAMILY CARE LEAVE	0.00	74.00	216.00	282.00	500.00	1,072.00
HLF-HOLIDAY FLOATING	8.00	200.00	200.00	96.00	88.00	592.00
II-INDUSTRIAL INJURY	0.00	320.00	0.00	0.00	0.00	320.00
JUR-JURY DUTY	0.00	0.00	0.00	8.00	16.00	24.00
LC1-LABOR CODE 233	48.00	446.78	383.45	104.00	136.00	1,118.23
LTI-OCCPIL/LONGTRM INJ LEAVE	0.00	0.00	0.00	0.00	48.00	48.00
MLN-MILITARY ABSENCE-UNPAID	0.00	0.00	120.00	0.00	0.00	120.00
RTO-REQUESTED TIME OFF-NO PA	0.00	20.00	4.00	0.00	0.00	24.00
SCK-SICK PAY	16.00	195.37	241.50	166.58	96.00	715.45
SCW-SICK WITHOUT PAY	0.00	48.00	17.75	296.00	88.00	449.75
SPN-SCHOOL PARTNER NOT PAID	0.00	0.47	0.00	0.00	0.00	0.47
SUP-TEMPORARY SUPERVISOR	0.00	442.00	600.05	388.00	180.50	1,610.55
VAC-VACATION	64.00	362.50	176.00	152.00	116.00	870.50
<b>Total Absence Hours</b>	<b>153</b>	<b>2,571</b>	<b>3,006</b>	<b>1,723</b>	<b>1,513</b>	<b>8,966</b>
Number of Work Force (assigned)	21	109	104	45	51	330
Full Work Force hours/month	3,639	18,890	18,023	7,799	8,838	57,189
<b>Absence as a % of Work Force</b>	<b>4%</b>	<b>14%</b>	<b>17%</b>	<b>22%</b>	<b>17%</b>	<b>16%</b>
OVERTIME TYPE and HOURS	3940	3941	3942	3943	3944	Total
CTB-COMPENSATORY TIME TO BANK	0	126.15	97.5	18.5	43.5	285.65
OTP-PREM OVERTIME	211	1,182.35	1,163.75	1,400.93	810.25	4,768.28
WLO-Worked Lunch Overtime	1.50	18.00	52.00	50.00	53.00	174.50
<b>Total</b>	<b>213</b>	<b>1327</b>	<b>1313</b>	<b>1469</b>	<b>907</b>	<b>5228</b>
<b>Overtime as a % of Work Force</b>	<b>6%</b>	<b>7%</b>	<b>7%</b>	<b>19%</b>	<b>10%</b>	<b>9%</b>
UNCOVERED ABSENCES	3940	3941	3942	3943	3944	Total
Absences FTE	1	15	17	10	9	52
OTP FTE	1	8	8	8	5	30
<b>FTE Difference</b>	<b>0</b>	<b>7</b>	<b>9</b>	<b>2</b>	<b>4</b>	<b>22</b>



# Rail Vehicle Engineering Project Summary

## February 2011

Technical Specifications	
<b>MBL, MGL, MRL, MGD (all fleets):</b>	P2000 HVAC Suttrak Units Overhaul    Systra Contract for Expo Fleet    MBL Articulation Bellow    P2000 Doors    P2000 Wheel/Axle Gear Box
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
<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
<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>	FCC High Voltage Decal    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
<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
<b>MRL (A650 Option/Base):</b>	ATO Berthing    Flender Gearbox    Coupler Corrosion Cover    Gate Drive Power Supply    Location Decal    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
<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
<b>MGDL (P2000/P2550):</b>	Truck Tramming Investigation    Operator Door Assembly Overhaul    Driver Cab Window Glass

# P2550 Vehicle Acceptance Program

## February 2011

### **Vehicle Status Update:**

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

### **Engineering Activities Update:**

- Event recorder – New propulsion software 12.c is released and installed on the fleet. Several signals from LON/MVB buss are delayed and are still under investigation...qualification pending.
- Traction Motor HV Junction Box – 10 car sets complete, remaining to be delivered late March 2011.
- Brake Caliper Overhaul – To date 7 cars in LA have been overhauled and 11 car sets have been competed.
- Reliability Program – AB has reviewed and compiles work order data from April through December 2010. Preliminary results show that 7 of the 12 subsystems are above contract requirement. In process.
- ATP System – ASTS have continued testing on software upgrade for release 4.0, under validation and verification to resolve drop timer timing. In progress.

### **Production Car Status – Pittsburg:**

- Car 748 - 100% complete. Testing in process.
- Car 749 - 90% complete. Assembly in process.
- Car 750 – 70% complete. Assembly in process.
- Cars 701& 702 - Re-configuration of car in progress, rewiring and repining of cables 100 % complete, passenger window installation complete.

### **Project Management:**

- One car was conditionally accepted in February.
- Contract spares are in process and delivered to Metro. Estimated at 80% complete.
- 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:**

- 3.4 million miles since March 2008 - - 212557 miles in February
- 3 mainline incidents.



# QA-Warranty Program Projects Summary

## February 2011

### ADMINISTRATION / ERS ACTIVITIES

- Oil Analysis Program - QA & Engineering scheduled to meet with Analysts Inc. Laboratory (March-April time frame) to discuss additional customizing of reports.
- UT-NDT Phasor vendor training 1<sup>st</sup> phase completed in February. Discovered software upgrades must be installed to continue special features that best serve Wheel inspections. Software will be available by end of March early April; 2<sup>nd</sup> phase training will occur there after.
- Requisition approved to purchase Fiber Optic Boroscope for gearbox internal inspections, an enhancement to the Oil analysis Program.
- PMI Audit Program inspections numbers to be increased. Last audit conducted at MGL, MRL & MBL scheduled for next month.
- ERS daily admin support & M3 data entry being done at all divisions. Wheel true data being readied for M3 tracking, first must be validated by RFS Maintenance prior to entry.
- ERS gear box data entry actual mileage must be validated by RFS Maintenance prior to entry.
- ERS leader responsible for ensuring all reports and records are archived into QA-Warranty Share Drive.

### RED LINE ACTIVITIES

- QC & warranty oversight on going, problem areas brakes, flats, propulsion & motor issues.
- QC support oversight continues for T/M Mounts failures & Truck Frame modification repair campaign.
- Support engineering with vendor qualification efforts for Compressor Motors, T/M Bearings, Gear Boxes, Inverters, Ground brushes, Coupler Cables & Brake Systems.
- Performed installation fit, form, function test Wabtec's Air Actuator & Parking Brake car 597/598.
- Vendor "Machining Inc." performed FAI's on placement Blower Propellers.
- Located Vendor for much needed ASM Fuses for HRV cars, moving forward with scheduling FAI's & Vendor audit.
- Troubleshoot Induction Motor problems, Motor sent back to vendor for repair.
- Warranty returns, R&R parts & MTA labor savings being documented to account for Cost Avoidance savings.
- Prepared Tech Reports, Power-Point-Presentations & FAI reports.

### BLUE LINE ACTIVITIES

- Support rail fleet in testing and identifying new brake vendors to resolve noise issues.
- Working closely with training division staff on EXPO Line TWC modification and help resolve open issues with P2000 fleet.
- Working on equipment overhaul, remove and replace campaigns to ensure service for next 7 to 10 years (Door Systems, Car Body, Lighting Systems, & Car interior Projects, gearbox, journal bearings, chevron springs).
- Provide Technical assistance on Procedures, Bulletins, and conduct FAI & parts inspections.
- Inspect gearboxes and identified ranking of first to OH. Requests for boroscope tool in cue.
- To improve fleet efficiency, QA identified path to move forward with FMDR data combined with M3 to prove a more accurate record.
- Working on Car Wash Mode to improve fleet cleaning.
- Warranty returns, R&R parts & MTA labor savings being documented to account for Cost Avoidance savings.
- Prepared Tech Reports, Power-Point-Presentations & FAI reports.



# QA-Warranty Program Projects Summary

## February 2011

### GREEN LINE ACTIVITIES

- Assist provided resolving issues with (Circuit Relays, Car Ventilating, Slew Rings, Inverters, T/Ms).
- Performed inspection on several gear box leakages, assist with identifying problem areas. Oil samples sent out for analysis.
- Support work with Vendors & Contractors on (Doors, Traction Motors, an Gearbox & Brake Systems).
- Working on resolving ATP/ATO incidents plaguing the division. Car 204 is being tested for repair.
- Conducted FAI on Condenser Fan Motor, found issues with electrical junction box. Requested test bulletin from engineering.
- Advised engineering to submit required voltage needed with test procedures to spin a complete power truck in order to check Traction Motors, gear boxes, and cable configuration before installation. Also advised need of a portable test unit.
- Prepared Tech Reports, Power-Point-Presentations & FAI reports.
- Warranty returns, R&R parts & MTA labor savings being documented to account for Cost Avoidance savings.

### GOLD LINE ACTIVITIES

- P2550 RWES download of requested video incidents for management, law enforcement & administration investigations.
- P2550 Contract Programs - QA staff overseeing conditional acceptance, equipment testing, spare parts & warranty conditions.
- QA inspection discovered Track Brake Magnet Bolts missing or loose request to ABI to take proactive action/resolution.
- Working with ABI to help resolve open issues on (Doors, Thermo King Ventilation & Battery Bus Bar)
- Project documentation, contract deliverables & maintenance records being kept up-to-date.
- Support ABI & RFSTS Engineering with Car Acceptance test issues.
- Warranty returns, R&R parts & MTA labor savings being documented to account for Cost Avoidance savings.
- Prepared Tech Reports, Power-Point-Presentations & FAI reports.

# Rail Fleet Services Instruction February 2011

## Training classes completed during the month of February 2011

Description	Status	Start	End	Course Hours	Student Count	Training Hours
<b>Blue Line Training - (865/2020 &amp; P2000 LRV):</b>						
PR EMPLOYEE SELF-SERVICE TRAINING	Complete	2/2/2011	2/22/2011	1	62	62
PROBLEM SOLVING - PART 2	Complete	2/2/2011	2/2/2011	2	1	2
RFS SIEMENS 2000 GE HARMON ATP	Complete	2/1/2011	2/18/2011	24	7	168
RFS SIEMENS 2000 PROPULSION	Complete	2/21/2011	2/28/2011	80	7	560
BLOODBORNE PATHOGENS	Complete	2/17/2011	2/17/2011	2	1	2
ETD VALUING DIVERSITY	Complete	2/10/2011	2/10/2011	3	1	3

**Total Blue Line Training (Hours): 797**

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

PR EMPLOYEE SELF-SERVICE TRAINING	Complete	2/1/2011	2/21/2011	1	44	44
WAYSIDE WORKER PROTECTION	Complete	2/22/2011	2/22/2011	4	5	20
EXCEL - 2003 BEGINNER	Complete	2/8/2011	2/8/2011	6	1	6
RAIL SYSTEM SAFETY	Complete	2/2/2011	2/23/2011	3	2	6

**Total Red Line Training (Hours): 76**

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

PR EMPLOYEE SELF-SERVICE TRAINING	Complete	2/2/2011	2/22/2011	1	37	37
RFS SIEMENS 2000 US&S ATP/ATO/TWC	Complete	2/1/2011	2/18/2011	40	3	120
RFS SIEMENS 2000 PROPULSION	Complete	2/21/2011	2/28/2011	80	3	240
GET ORGANIZED FOR PEAK PERFORMANCE - PART 1	Complete	2/24/2011	2/1/2011	3	1	3

**Total Green Line Training (Hours): 400**

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

PR EMPLOYEE SELF-SERVICE TRAINING	Complete	2/1/2011	2/1/2011	1	36	36
RFS ANSALDOBREDA 2550 INTEGRATED DISPLAY	Complete	2/22/2011	2/25/2011	24	2	48
RFS ANSALDOBREDA 2550 LIGHTING	Complete	2/17/2011	2/18/2011	12	2	24
RFS ANSALDOBREDA 2550 APS\LVPS\BATTERY	Complete	2/1/2011	2/4/2011	24	3	72
WAYSIDE WORKER PROTECTION	Complete	2/22/2011	2/22/2011	4	10	40
RAIL SYSTEM SAFETY	Complete	2/16/2011	2/16/2011	3	1	3
RFS CAR HOIST OPERATION	Complete	2/14/2011	2/14/2011	2	9	18

**Total Gold Line Training (Hours): 241**

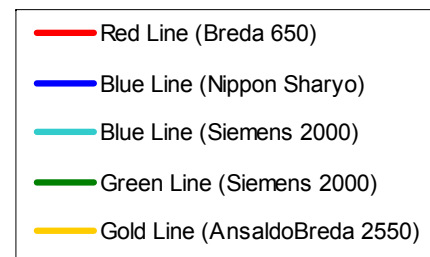
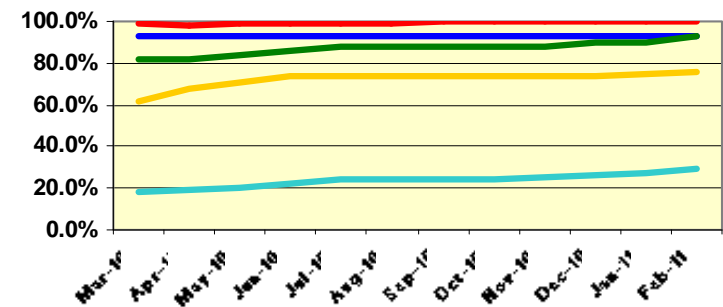
**Total Rail Fleet Services Instruction for the month of February 2011 (Hours): 1,514.0**

### Core Vehicle Training Completed:

	BLUE	RED	GREEN	GOLD
Percentage of core vehicle training complete:	92.9%	99.5%	93.1%	75.6%
Siemens 2000 training complete:	29.0%	N/A	N/A	N/A

Average Specialist Rail Experience Level in Years: 11.4 11.3 8.3 9.5

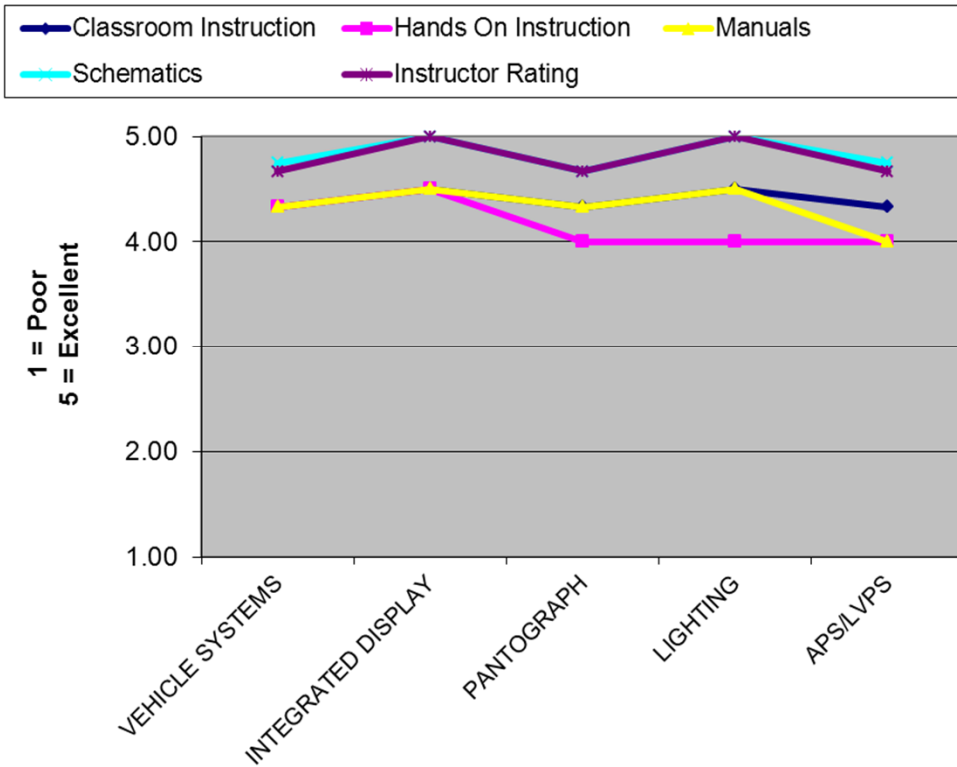
## Core Training Completed



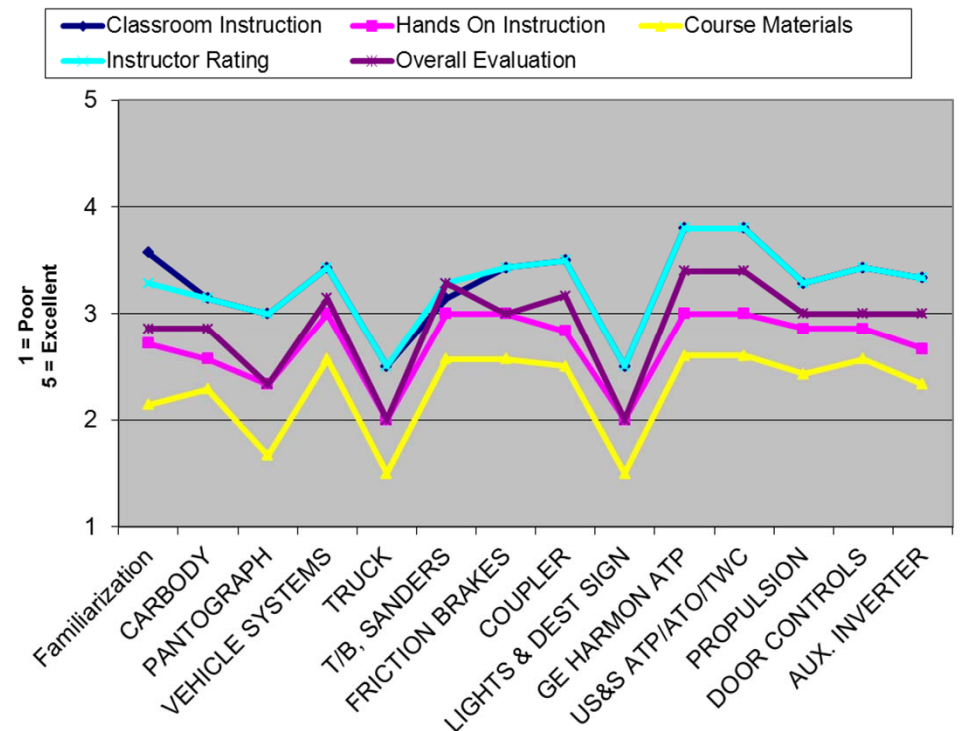
Variations caused by new hires, employee transfers,  
& training completed

# RFS Instruction Evaluations

**P2550 Training Evaluations**



**P2000 Training Evaluations**



Results skewed by one student who marked every item as poor.