



Rail Fleet Services Monthly Report March 2013

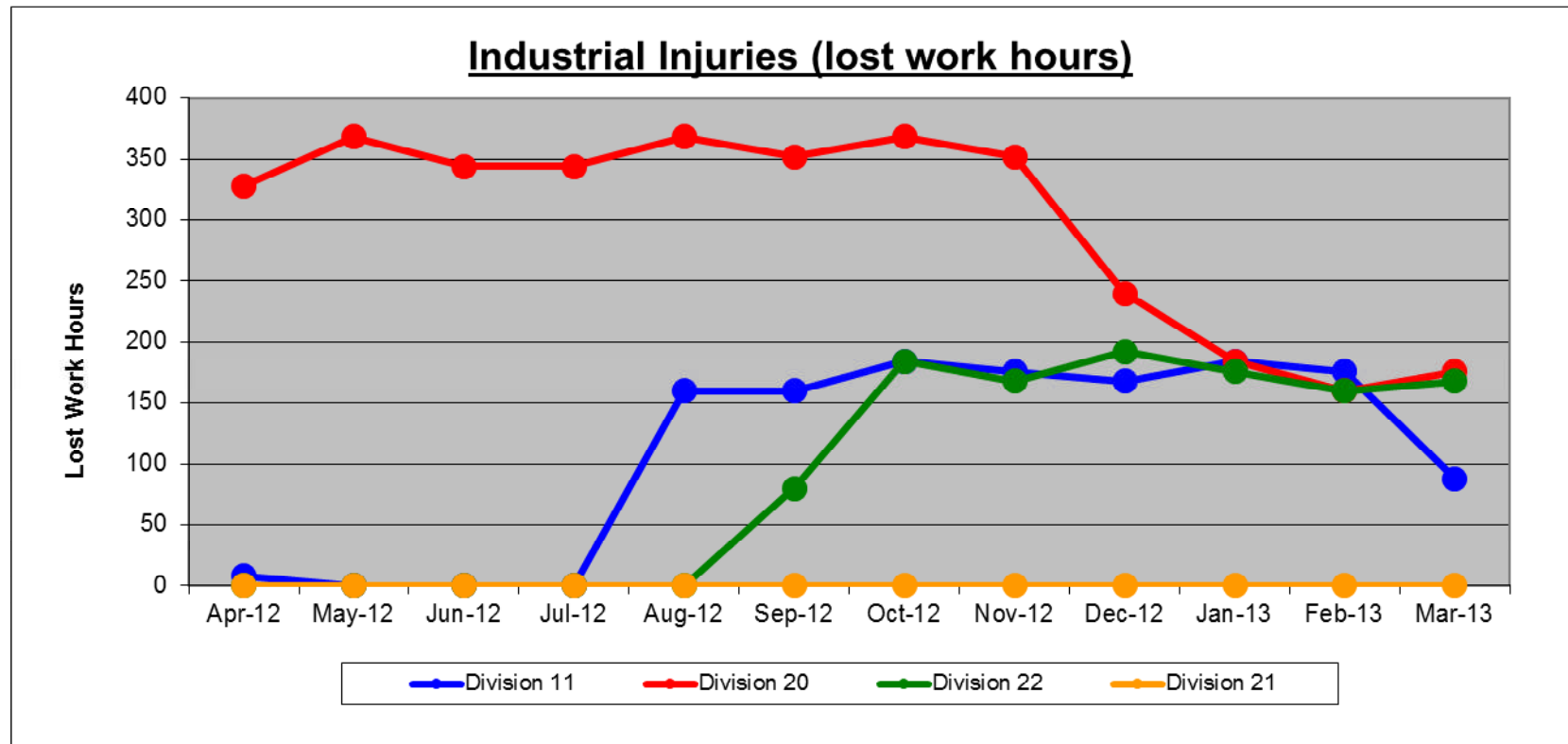


Metro

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Industrial Injuries – Lost Work Hours March 2013



	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Year to Date
Division 11	8	0	0	0	160	160	184	176	168	184	176	88	1,304
Division 20	328	368	344	344	368	352	368	352	240	184	160	176	3,584
Division 22	0	0	0	0	0	80	184	168	192	176	160	168	1,128
Division 21	0	0	0	0	0	0	0	0	0	0	0	0	0
Totals	336	368	344	344	528	592	736	696	600	544	496	432	6,016

Rail Vehicle Accidents & Major Incidents

March 2013

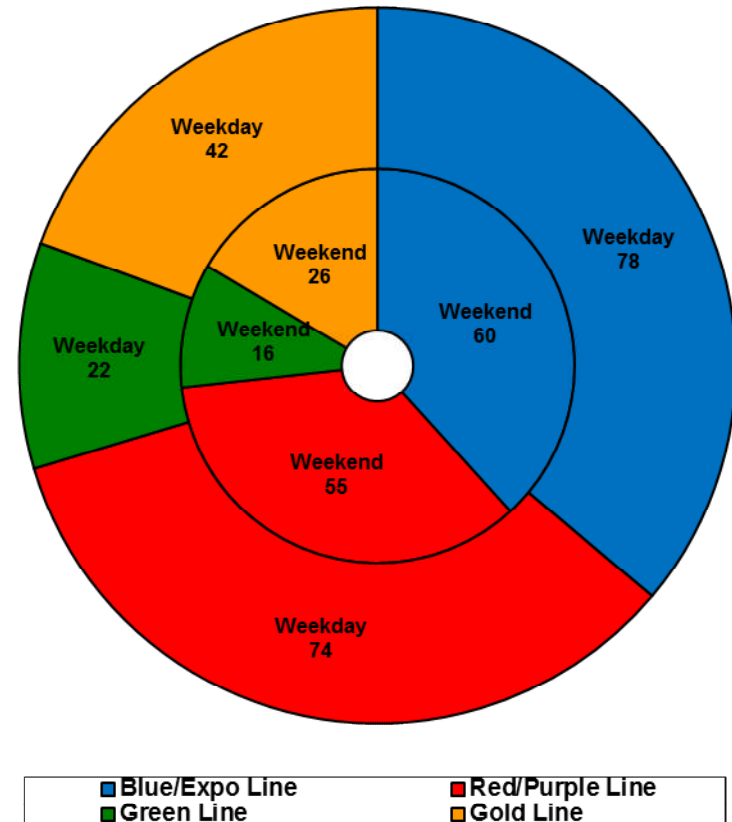
Repair Costs	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Totals
Blue/Expo Line	\$2,675	\$1,718	\$1,186	\$674	\$8,226	\$4,726	\$1,668	\$494	\$5,262	\$18,740	\$3,288	\$2,959	\$51,616
Red/Purple Line	\$1,115	\$571	\$0	\$0	\$0	\$778	\$0	\$0	\$0	\$2,244	\$0	\$0	\$4,708
Green Line	\$989	\$0	\$0	\$120	\$0	\$0	\$0	\$0	\$503	\$202	\$126	\$0	\$1,940
Gold Line	\$0	\$0	\$752	\$0	\$1,583	\$0	\$0	\$0	\$0	\$176	\$0	\$0	\$2,511
Totals	\$4,779	\$2,289	\$1,938	\$794	\$9,809	\$5,504	\$1,668	\$494	\$5,765	\$21,362	\$3,414	\$2,959	\$60,775

Rail Vehicle Accident Costs - March 2013				
Metro Blue Line				
Date	Incident #	Problem code	Incident Description	Cost
3/22/13	2301257	Train vs. Vehicle	A 10-73 was reported at Pacific and 5th Street heading northbound on track 1.	\$2,959.00
3/26/13	2302608	Train vs. Object	A 10-71 was reported at Willow heading northbound on track 1.	\$0.00
				2,959.00
Metro Gold Line				
3/18/13	2299539	Train vs. Object	A 10-71 was reported involving Train 412 on track 2 heading southbound involving a trash can on the ROW between tracks (Colorado box).	\$0.00
				\$0.00
				GRAND TOTAL \$2,959.00
(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 March 2013

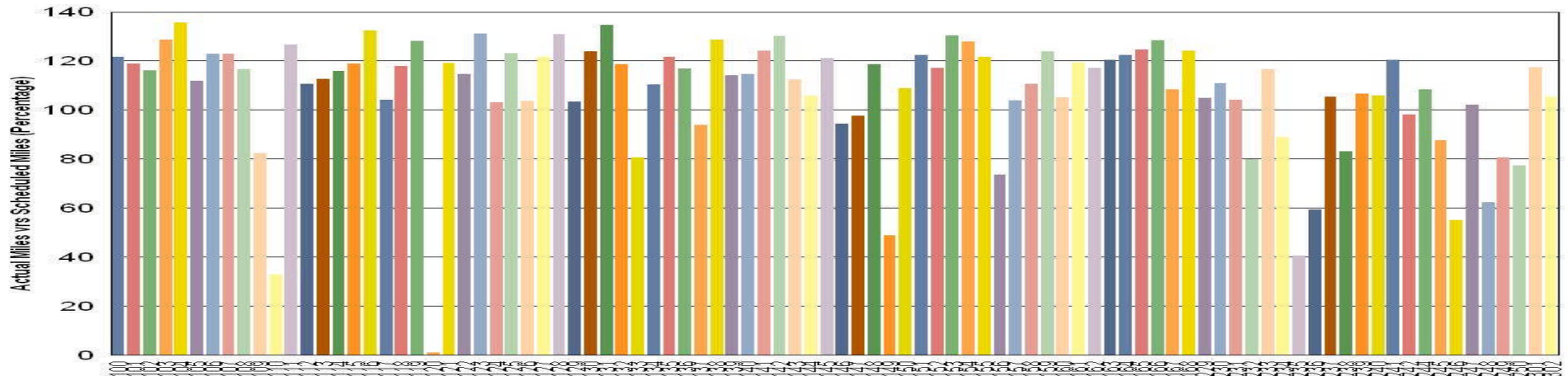
Blue/Expo Line Fleet Size: 92			
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	78	80	103%
Weekend:	60	64	106%
Late Pullouts: 1 *			
Monthly Mileage:	650,324		
Red/Purple Line Fleet Size: 104			
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	74	83	113%
Weekend:	55	71	129%
Late Pullouts: 0 *			
Monthly Mileage:	635,110		
Green Line Fleet Size: 29			
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	22	23	106%
Weekend:	16	18	113%
Late Pullouts: 0 *			
Monthly Mileage:	235,435		
Gold Line Fleet Size: 50			
	<u>Vehicles</u>	<u>Average</u>	<u>% Up</u>
<u>Pull Out</u>	<u>Required</u>	<u>Available</u>	<u>(Down)</u>
Weekday:	42	43	104%
Weekend:	26	44	167%
Late Pullouts: 0 *			
Monthly Mileage:	312,253		

* Due to a vehicle -related problem



Vehicle Utilization March 2013

Metro Blue/Expo Line Fleet



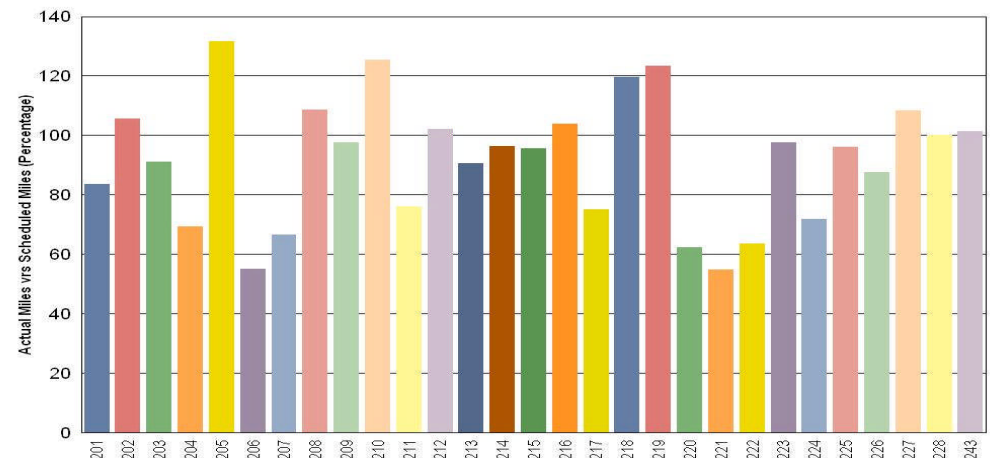
Blue/Expo Lines:

- 110 Vehicle held out of service due to "soft floor" and was in the body shop for floor refurbishment.
- 120 Vehicle held out of service due to repeated failure for self-applying brakes.

Green Line:

The fleet has met the daily maximum utilization requirements for the month of March.

Metro Green Line



Note: Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.

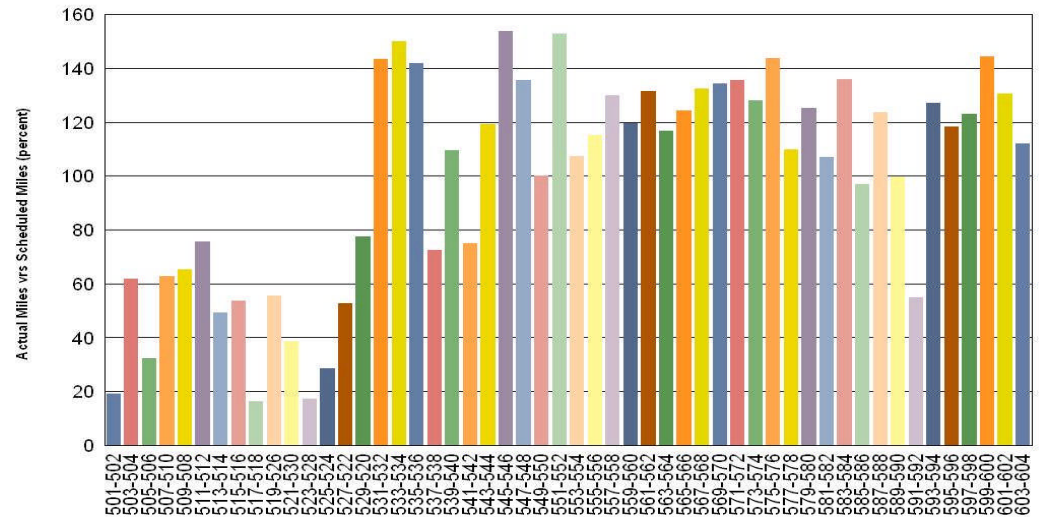
Vehicle Utilization

March 2013

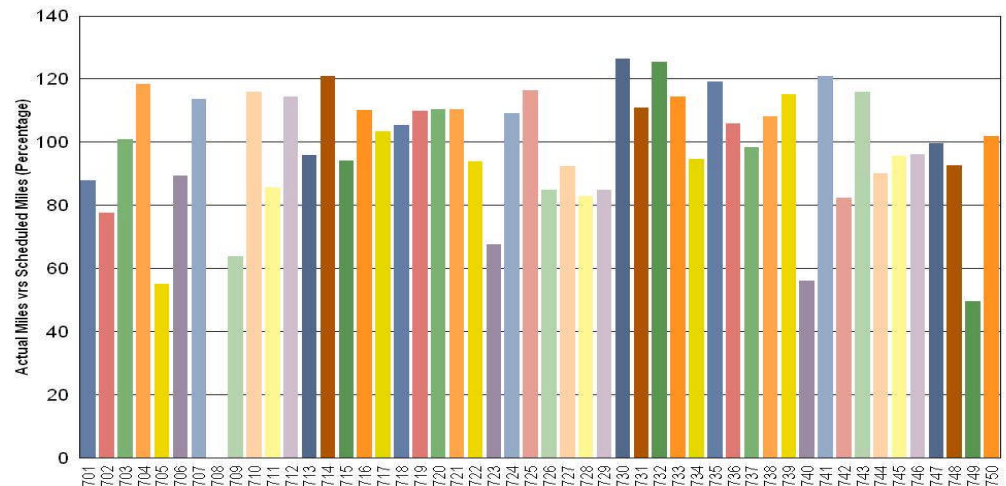
Red/Purple Lines: Explanation for under-used vehicles:

- 501-502** Vehicle held out of service due to issues involving AC evaporator motor shutting off. Vehicle has been restored and is now back in services.
- 505-506** Vehicle held out of service due to 90k inspection and associated corrective orders.
- 517-518** Vehicle held out of service due to HVAC overhaul project.
- 521-530** Vehicle held out of service due to auxiliary power failure and truck replacement issues.
- 523-528** Vehicle held out of service due to propulsion problems related to burnt motor.
- 525-524** Vehicle held out of service due to propulsion problems with tripped CB1.

Metro Red/Purple Lines



Metro Gold Line



Gold Line:

- 708** Vehicle held out of service due to a severe high speed coupling malfunction (warranty issue) on the B truck. Currently pending further investigation/resolution. Truck has been swapped and other defective equipment replaced. Target date to restore to service is 4/8/13.

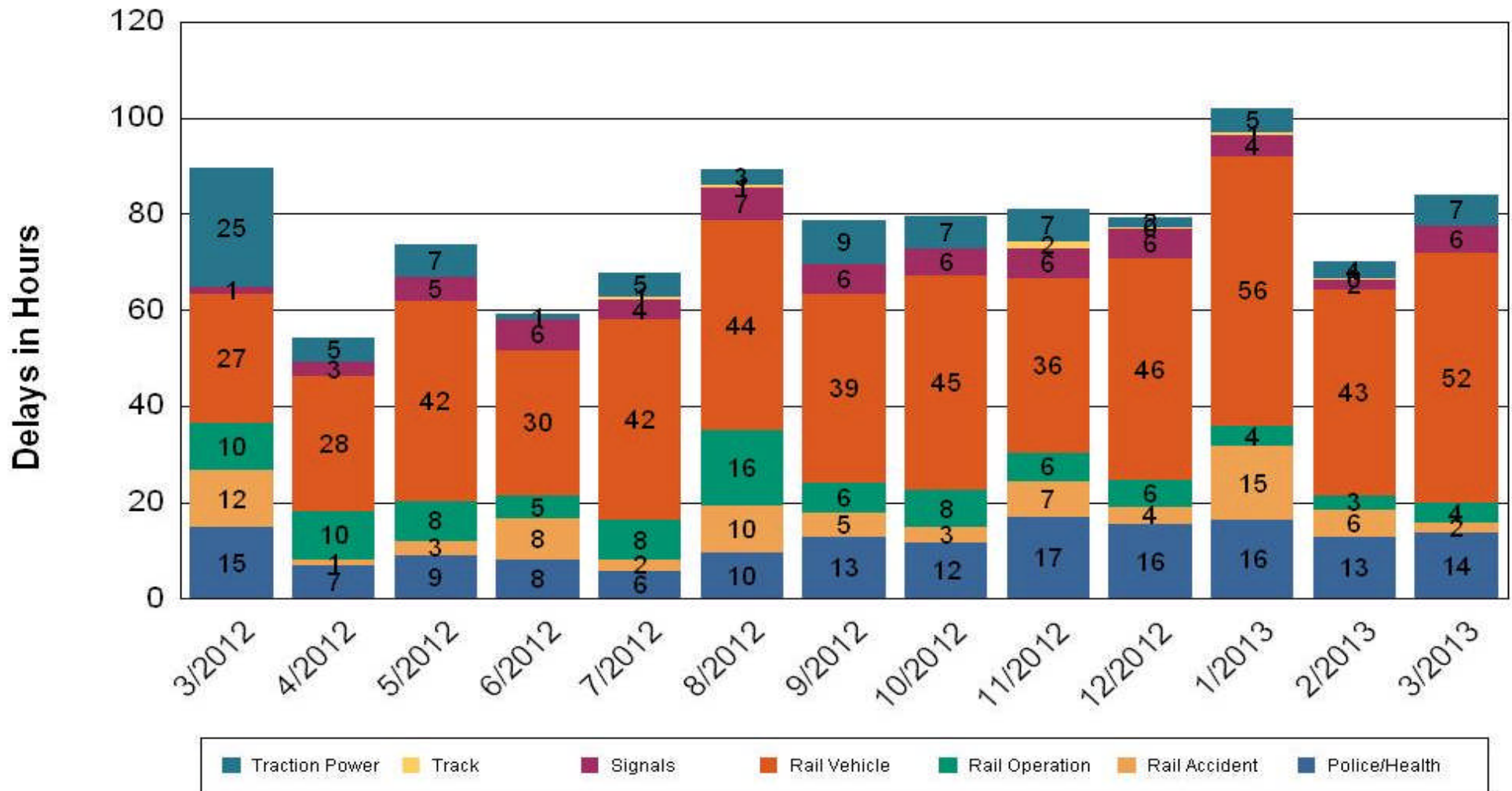


•Percentage includes an average 4% mileage deduction for yard mileage and vehicle testing.

All Train Delay Incidents March 2013

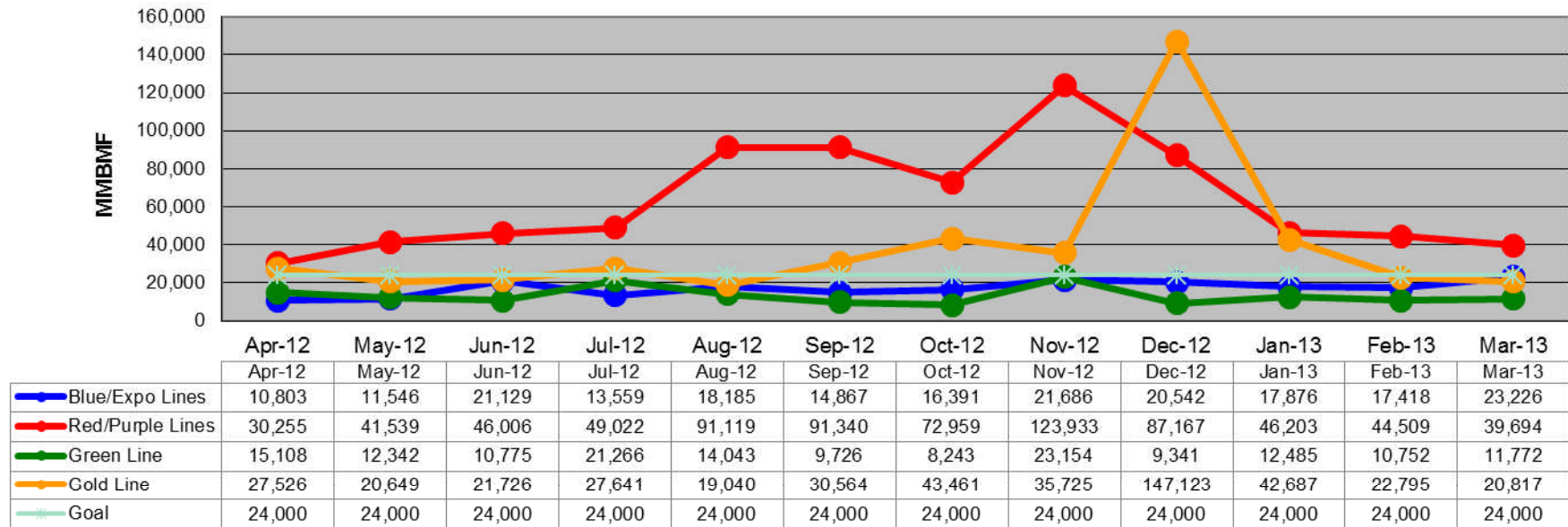
All Train Delays

Totals Include the delay to all trains involved (not just the primary incident)

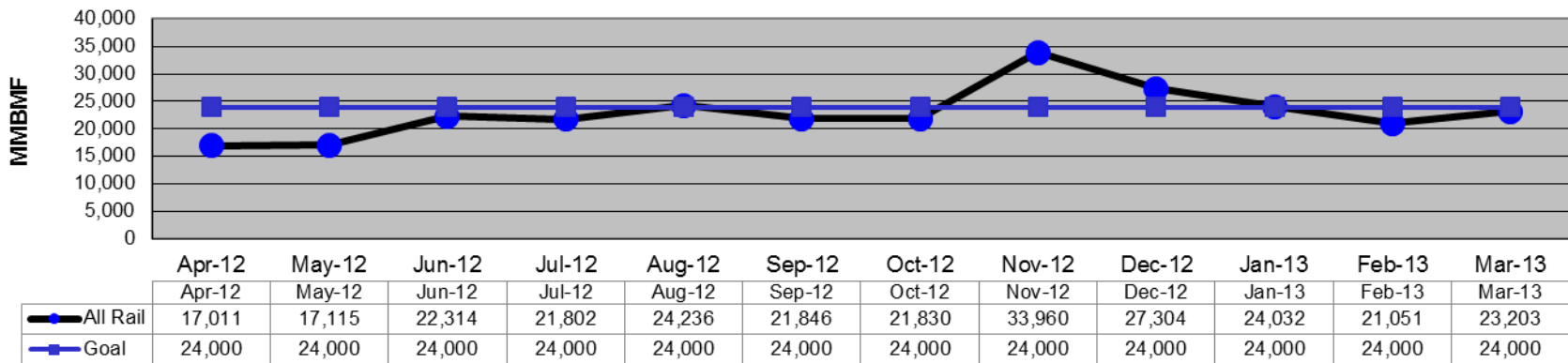


Mean Miles Between Failures (Major) Year to Date

Mean Miles Between Major Failures (12 months)



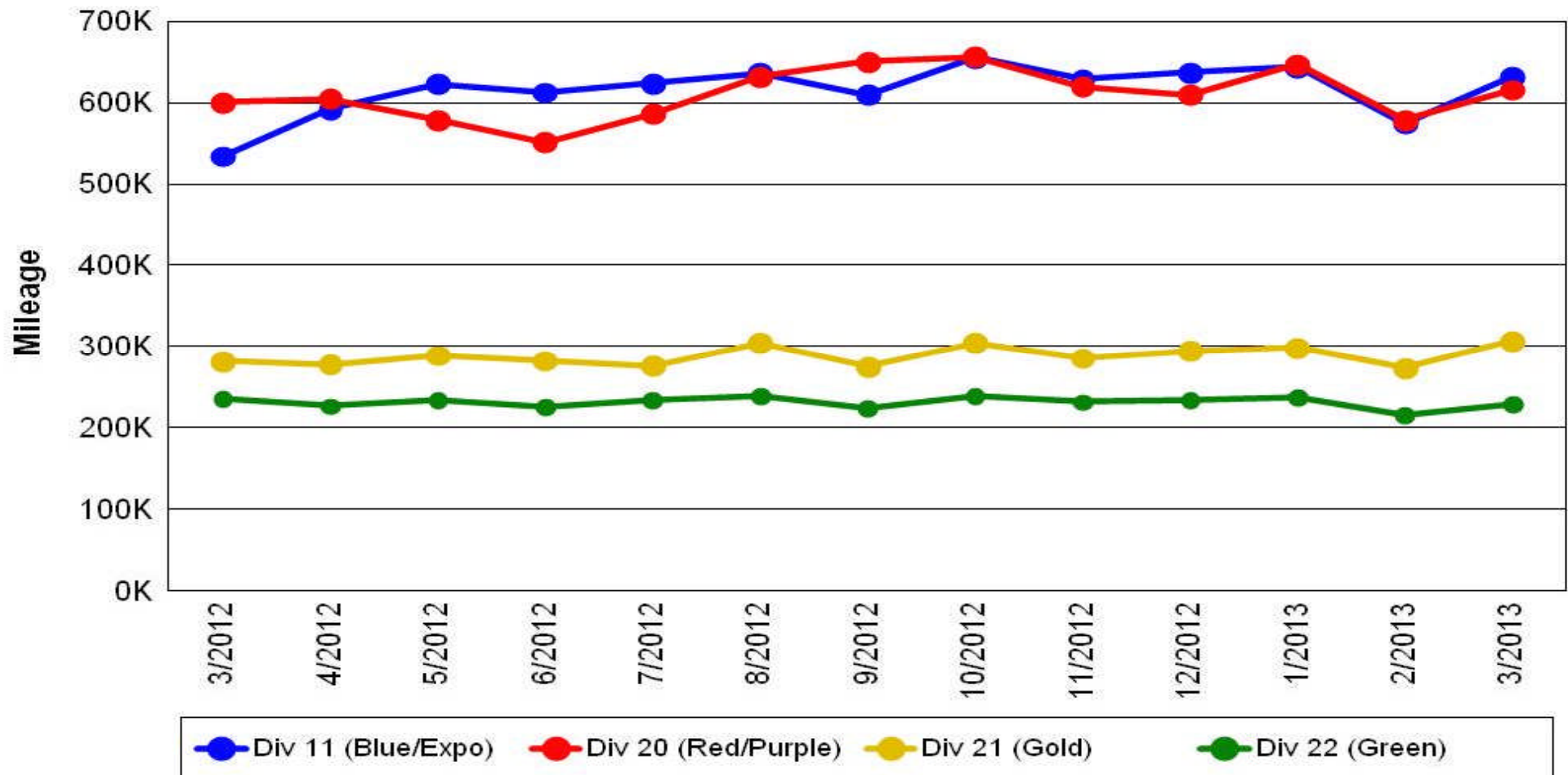
Mean Miles Between Major Failures (all)



Mileage Between Data Range (by month)

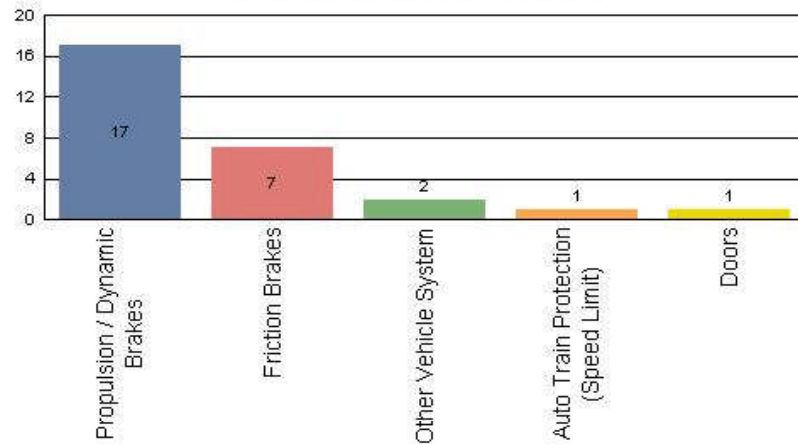
March 2013

Rail Division Monthly Mileage

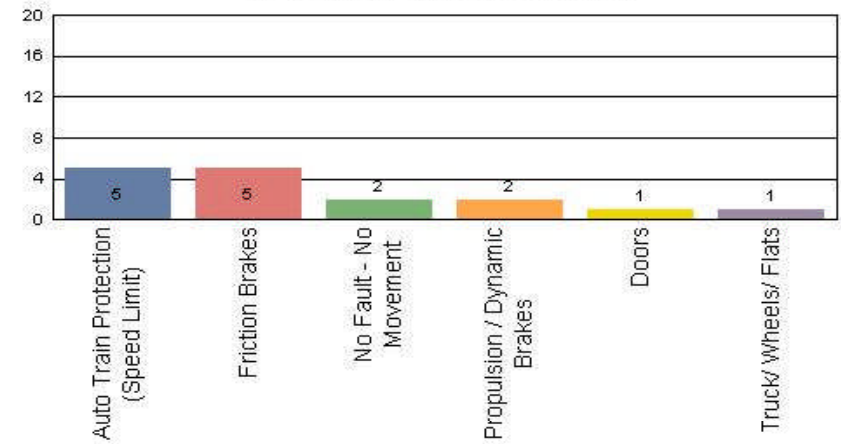


Major Incidents March 2013

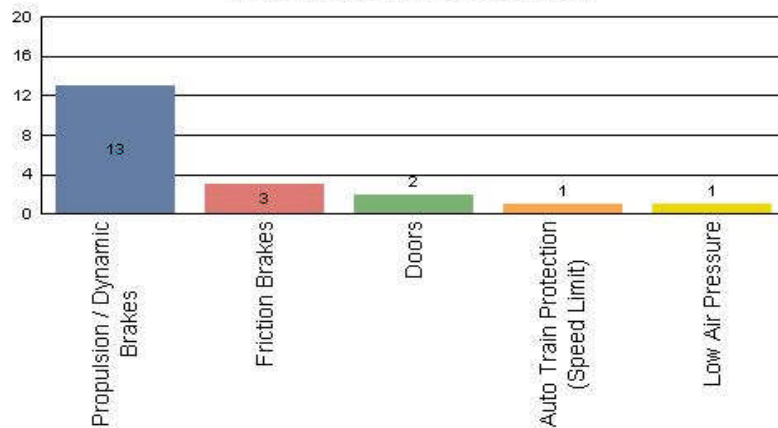
Metro Blue/Expo Line
Top Incident Categories



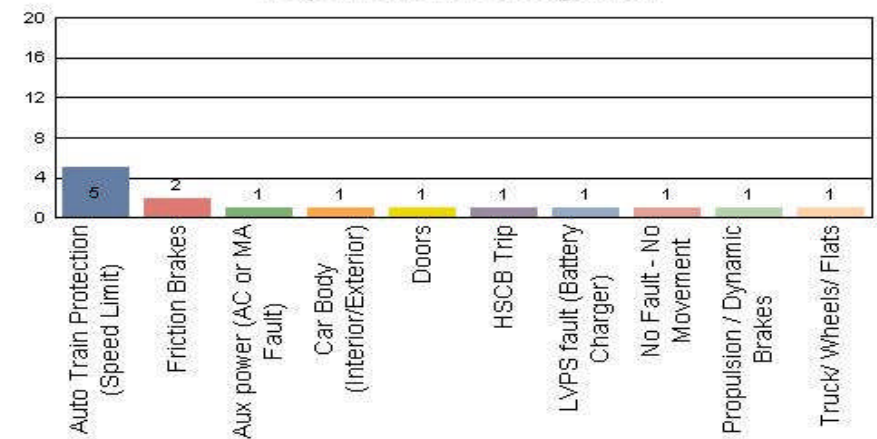
Metro Red/Purple Line
Top Incident Categories



Metro Green Line
Top Incident Categories



Metro Gold Line
Top Incident Categories



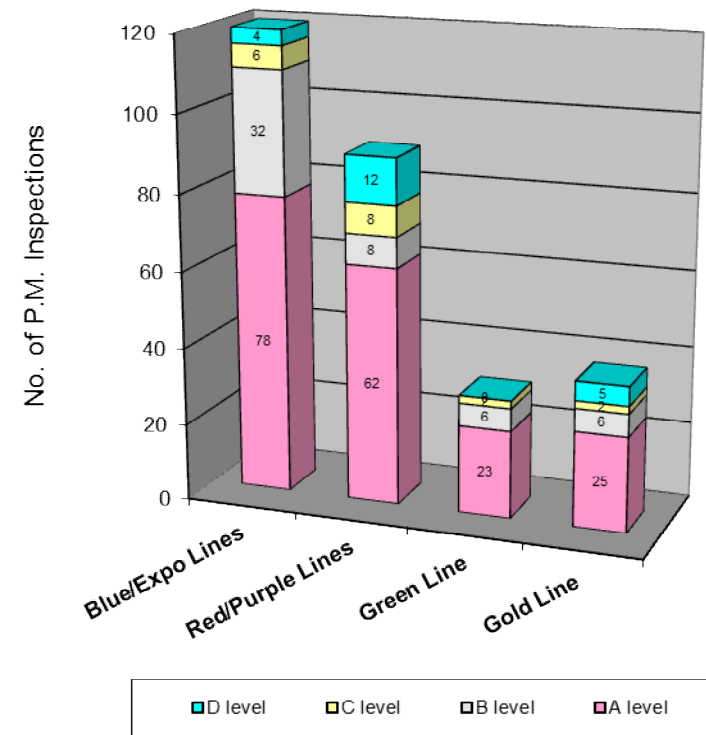
Preventive Maintenance Compliance

March 2013

PM Compliance	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
Blue/Expo Lines	100%	100%	100%	100%	100%	100%	100%	100%	100%	*99%	100%	100%
Red/Purple Lines	100%	100%	100%	100%	*98%	100%	100%	100%	100%	100%	100%	100%
Green Line	100%	100%	96%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

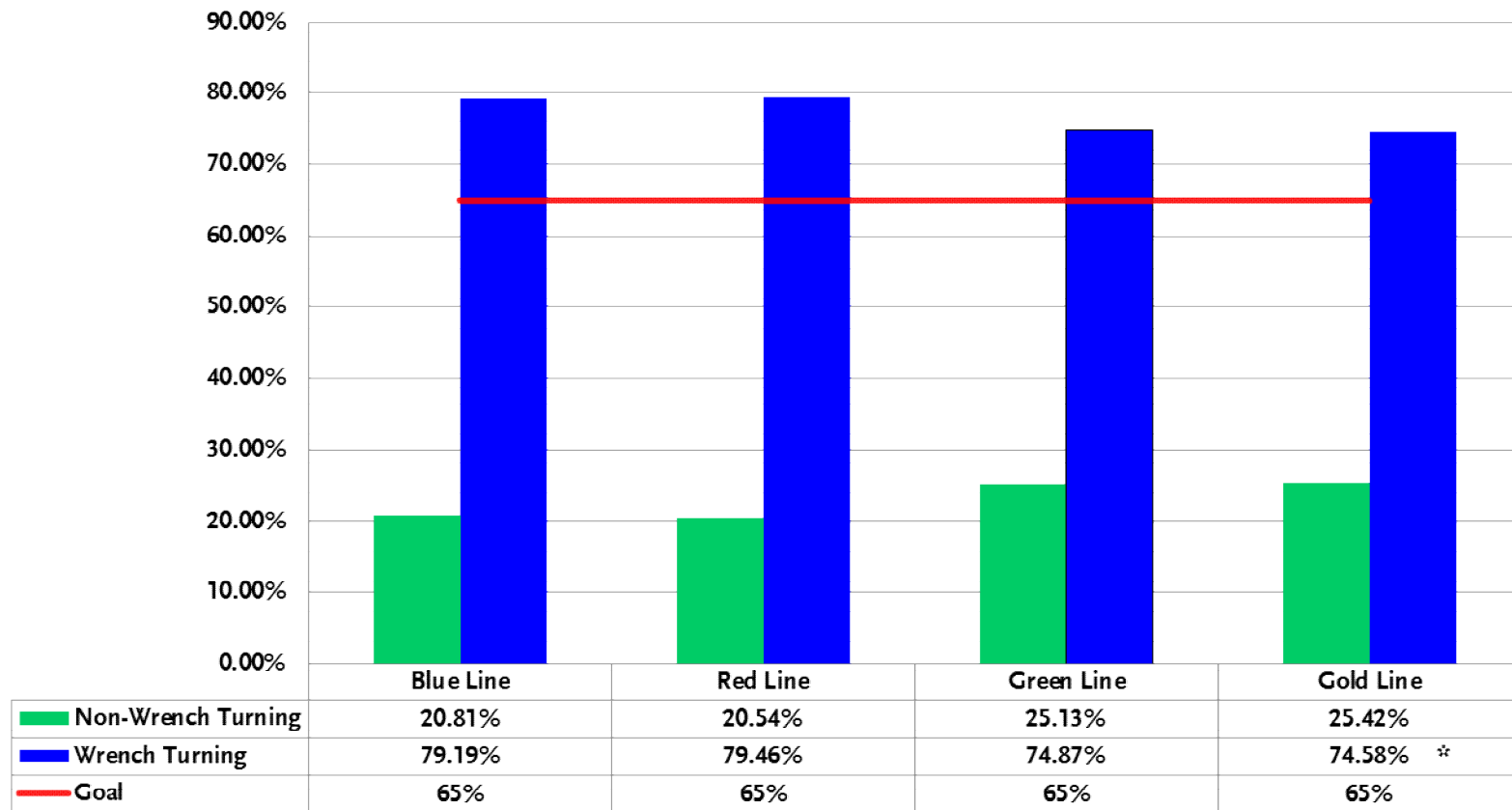
Number of Preventive Maintenance Inspections - March 2013					
Line	A level	B level	C level	D level	Totals
Blue/Expo Lines	78	32	6	4	120
Red/Purple Lines	62	8	8	12	90
Green Line	23	6	2	0	31
Gold Line	25	6	2	5	38
Totals:	188	52	18	21	279

Explanation of PM Inspection levels		Miles			
Line	Type	A level	B level	C level	D level
Blue/Expo Lines	P865/P2020	5,000	15,000	30,000	60,000
Blue/Expo Lines	P2000	7,500	22,500	45,000	90,000
Red/Purple Lines	A650	7,500	22,500	45,000	90,000
Green Line	P2000	7,500	22,500	45,000	90,000
Gold Line	P2550	10,000	30,000	60,000	120,000



RFS Wrench Turning March 2013

RFS - Wrench Turning March 2013



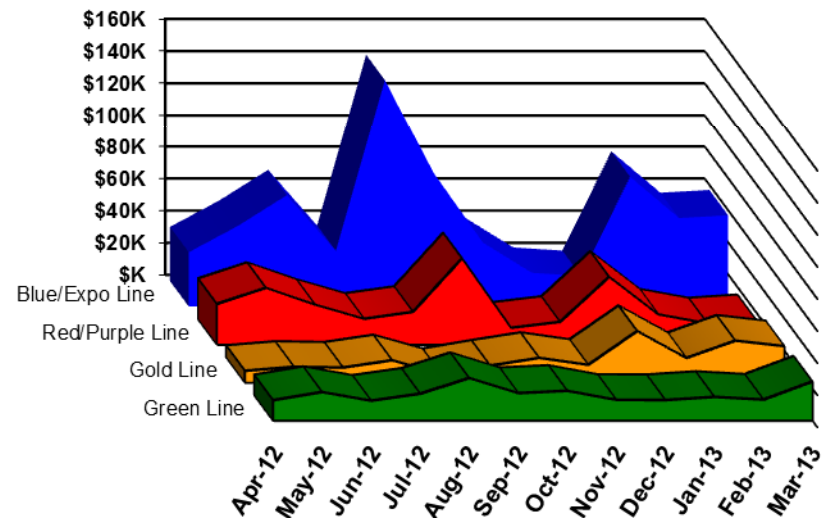
*Note: Revised number reflects correction of originally misidentified duties.

Vandalism & Graffiti Report

March 2013

	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Year-to-Date
Blue/Expo Line	\$34K	\$50K	\$69K	\$35K	\$142K	\$83K	\$40K	\$21K	\$19K	\$81K	\$55K	\$57K	\$686K
Red/Purple Line	\$25K	\$35K	\$25K	\$16K	\$20K	\$54K	\$10K	\$14K	\$42K	\$19K	\$13K	\$15K	\$290K
Green Line	\$13K	\$18K	\$12K	\$17K	\$27K	\$17K	\$19K	\$13K	\$13K	\$15K	\$13K	\$24K	\$201K
Gold Line	\$7K	\$10K	\$9K	\$14K	\$5K	\$11K	\$15K	\$11K	\$32K	\$15K	\$26K	\$23K	\$180K
Totals:	\$79K	\$113K	\$116K	\$82K	\$194K	\$165K	\$84K	\$59K	\$106K	\$130K	\$108K	\$119K	\$1,356K

March 2013 Vandalism & Graffiti - All Rail				
	Qty	Labor	Materials	Totals
Windows replaced	136	\$9,450	\$17,894	\$27,344
Vandal Shields	494	\$14,785	\$7,018	\$21,803
Seats Cleaned	310	\$2,906	\$0	\$2,906
Seats Replaced	444	\$13,986	\$15,121	\$29,107
Graffiti removal - other	1,454	\$11,756	\$6,589	\$18,345
Repainting panels	46	\$15,740	\$4,060	\$19,800
Totals	2,884	\$68,623	\$50,682	\$119,305



Graffiti Pictures March 2013

Blue Line



Green Line



Gold Line

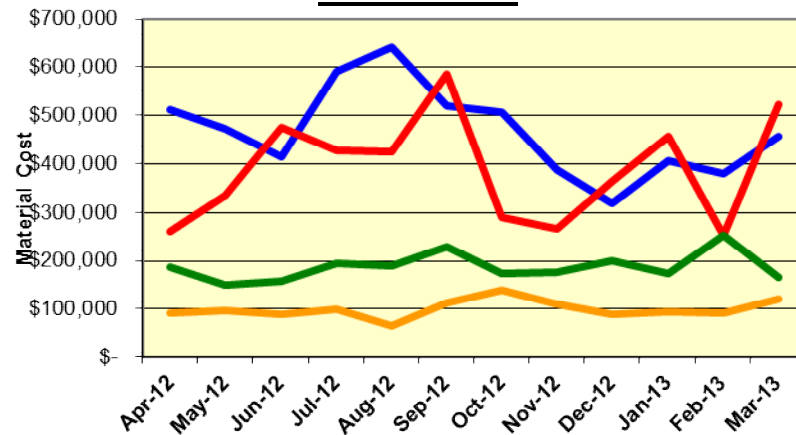


Material and Labor Costs

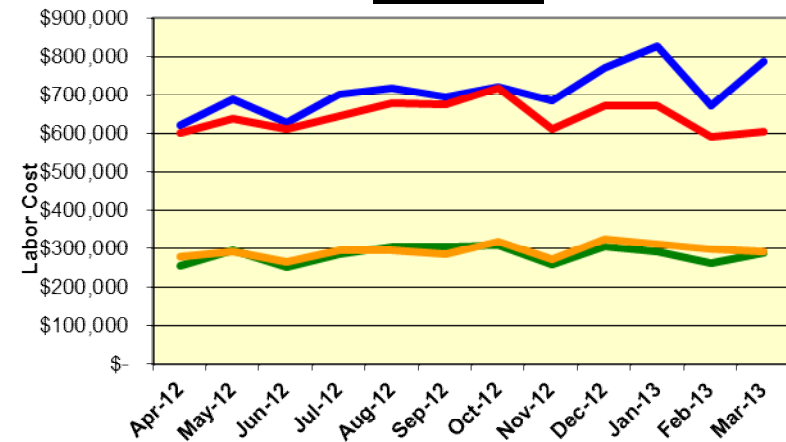
March 2013

MATERIALS	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
Blue/Expo Lines	\$ 511,185	\$ 473,281	\$ 414,601	\$ 591,928	\$ 643,006	\$ 520,023	\$ 506,591	\$ 388,758	\$ 320,127	\$ 407,585	\$ 379,796	\$ 457,700
Red/Purple Lines	\$ 260,532	\$ 335,824	\$ 474,908	\$ 428,864	\$ 424,173	\$ 587,362	\$ 289,365	\$ 265,900	\$ 365,489	\$ 458,038	\$ 254,026	\$ 522,856
Green Line	\$ 186,572	\$ 149,660	\$ 157,920	\$ 194,003	\$ 189,811	\$ 230,008	\$ 174,361	\$ 175,923	\$ 200,257	\$ 173,693	\$ 254,286	\$ 166,766
Gold Line	\$ 91,218	\$ 98,407	\$ 88,885	\$ 98,449	\$ 64,112	\$ 112,270	\$ 138,235	\$ 111,198	\$ 90,479	\$ 95,355	\$ 91,890	\$ 120,086
Totals	\$ 1,049,507	\$ 1,057,172	\$ 1,136,314	\$ 1,313,244	\$ 1,321,102	\$ 1,449,663	\$ 1,108,552	\$ 941,779	\$ 976,352	\$ 1,134,671	\$ 979,998	\$ 1,267,408

Material Costs



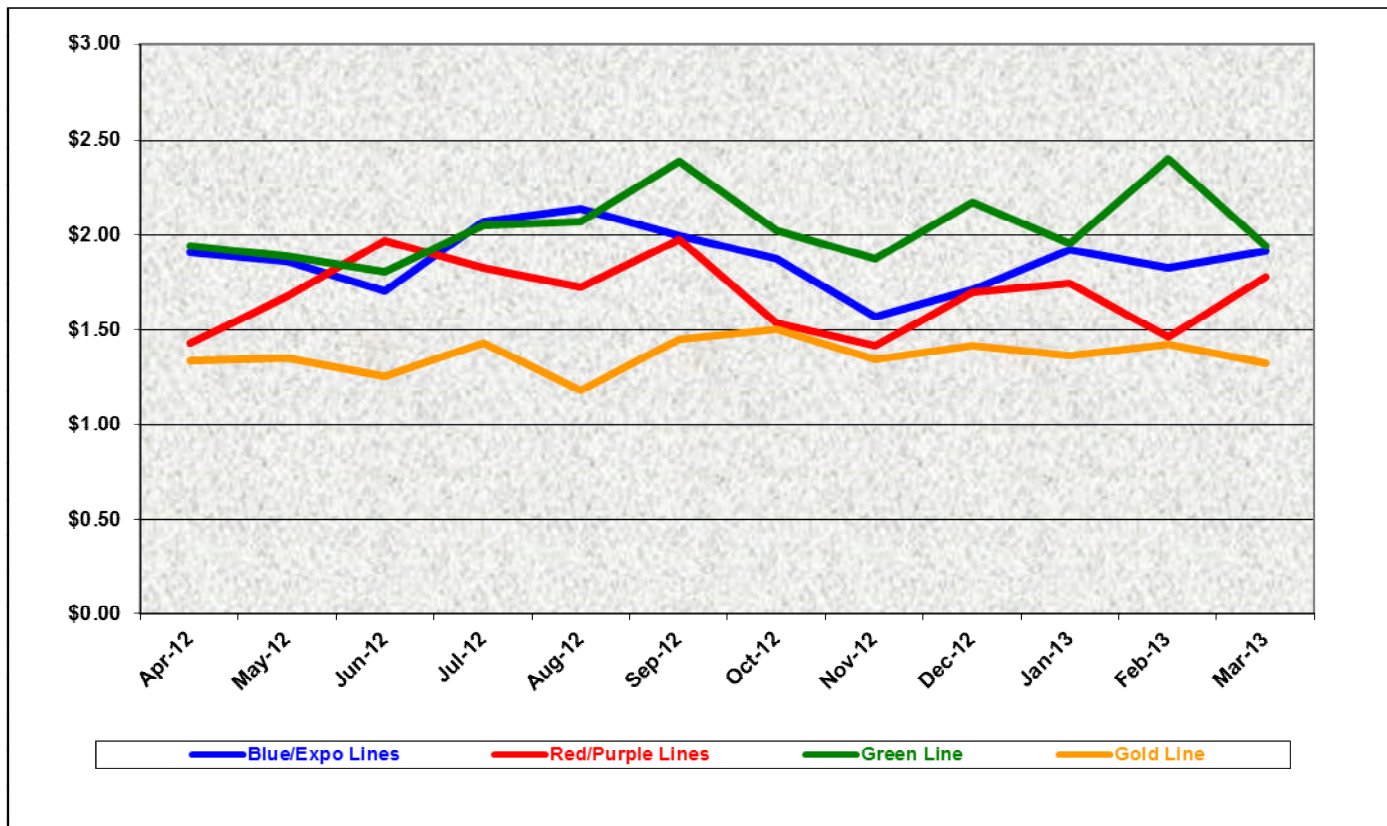
Labor Costs



LABOR	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13
Blue/Expo Lines	\$ 622,113	\$ 687,897	\$ 628,928	\$ 699,849	\$ 716,987	\$ 695,926	\$ 722,379	\$ 683,896	\$ 772,382	\$ 827,656	\$ 671,298	\$ 788,111
Red/Purple Lines	\$ 602,434	\$ 639,102	\$ 613,032	\$ 645,748	\$ 676,501	\$ 674,192	\$ 718,139	\$ 610,872	\$ 671,039	\$ 671,792	\$ 590,750	\$ 605,903
Green Line	\$ 253,643	\$ 293,492	\$ 251,094	\$ 286,110	\$ 304,066	\$ 304,487	\$ 309,399	\$ 258,637	\$ 306,761	\$ 290,453	\$ 261,863	\$ 289,639
Gold Line	\$ 276,975	\$ 290,375	\$ 264,536	\$ 296,565	\$ 296,078	\$ 286,489	\$ 318,284	\$ 272,259	\$ 326,736	\$ 311,060	\$ 297,422	\$ 292,452
Totals	\$1,755,165	\$1,910,866	\$1,757,590	\$1,928,272	\$1,993,632	\$1,961,094	\$2,068,201	\$1,825,664	\$2,076,918	\$2,100,961	\$1,821,333	\$1,976,105

Cost Per Mile March 2013

Cost per mile:	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Average
Blue/Expo Lines	\$1.91	\$1.86	\$1.70	\$2.07	\$2.14	\$1.99	\$1.87	\$1.57	\$1.72	\$1.92	\$1.83	\$1.92	\$1.88
Red/Purple Lines	\$1.43	\$1.68	\$1.97	\$1.83	\$1.73	\$1.97	\$1.53	\$1.41	\$1.70	\$1.75	\$1.46	\$1.78	\$1.69
Green Line	\$1.94	\$1.89	\$1.81	\$2.05	\$2.07	\$2.39	\$2.02	\$1.88	\$2.17	\$1.96	\$2.40	\$1.94	\$2.04
Gold Line	\$1.34	\$1.34	\$1.25	\$1.43	\$1.18	\$1.45	\$1.50	\$1.34	\$1.42	\$1.36	\$1.42	\$1.32	\$1.36



ATU Absences vs. Overtime

March 2013

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	64.00	8.00	0.00	72.00
BER-BEAVEMENT	0.00	8.00	72.00	0.00	0.00	0.00	80.00
CTO-COMPENSATORY TIME OFF	0.00	529.63	416.00	178.50	148.00	22.38	1,294.51
CUT-EMPLOYEE LEAVES EARLY	0.00	0.67	0.00	0.00	0.50	0.00	1.17
CVA - CASUAL VACATION	0.00	114.00	556.00	0.00	264.00	0.00	934.00
DSL-DISABILITY LEAVE/LONG	0.00	696.00	48.00	168.00	168.00	0.00	1,080.00
EFH-EMG. FLOAT HOL.	0.00	0.00	40.00	32.00	8.00	0.00	80.00
ETO-EXCUSED TIME OFF	15.50	62.00	30.64	6.50	53.83	2.00	170.47
FMI-FAM IND INJURY	0.00	80.00	176.00	160.00	0.00	0.00	416.00
FML-FAMILY CARE LEAVE	0.00	624.57	460.00	112.00	88.00	0.00	1,284.57
FMS-FAMILY LEAVE SICK	0.00	136.00	257.60	0.00	58.80	0.00	452.40
HLF-HOLIDAY FLOATING	24.00	112.00	176.00	104.00	72.00	0.00	488.00
IH-INDUSTRIAL INJURY	0.00	8.00	176.00	168.00	0.00	0.00	352.00
IIR-INDUS INJURY-REOCCUR.	0.00	80.00	0.00	0.00	0.00	0.00	80.00
JUR-JURY DUTY	0.00	16.00	16.00	0.00	8.00	0.00	40.00
LC1-LABOR CODE 233	0.00	290.00	330.21	128.00	192.00	16.00	956.21
OWP-OFF WITH PERMISSION	0.00	0.00	0.00	0.00	8.00	0.00	8.00
RTO-REQUESTED TIME OFF-NO PA	0.00	16.92	12.00	64.00	0.00	0.00	92.92
SCK-SICK PAY	18.40	152.00	241.00	88.00	148.00	0.00	647.40
SCW-SICK WITHOUT PAY	0.00	112.00	8.00	84.00	0.00	0.00	204.00
SPN-SCHOOL PARTNER NOT PAID	0.00	0.00	0.00	0.00	8.00	0.00	8.00
SUS-DISCIPLINARY SUSPENSION	0.00	0.00	0.00	0.00	16.00	0.00	16.00
TAR-TARDY	0.00	1.24	1.41	2.14	0.67	0.07	5.53
VAC-VACATION	28.00	604.50	476.00	230.00	88.00	8.00	1,434.50
VAS-VACATION WHILE SICK	0.00	0.00	5.62	0.00	0.00	0.00	5.62
Total Absence Hours	86	3,644	3,498	1,589	1,338	48	10,203
ATU Number of Work Force (assigned)	7	122	108	47	47	6	337
Full Work Force hours/month	1,213	21,143	18,716	8,145	8,145	1,040	58,402
Absence as a % of Work Force	7%	17%	19%	20%	16%	5%	17%
OVERTIME TYPE and HOURS	3940	3941	3942	3943	3944	3947	Total
CTB-COMPENSATORY TIME TO BANK	7	151	225	30	57	8	477
OTP-PREM OVERTIME	365	5466	4299	1843	1689	204	13867
WLO-Worked Lunch Overtime	11	158	142	106	91	9	515
Total	382	5775	4666	1979	1836	221	14859
Overtime as a % of Work Force	31%	27%	25%	24%	23%	21%	25%
UNCOVERED ABSENCES	3940	3941	3942	3943	3944	3947	Total
Absences FTE	0	21	20	9	8	0	59
OTP FTE	2	33	27	11	11	1	86
FTE Difference	-2	-12	-7	-2	-3	-1	-27

Note: Overtime also covers other required activities.

Rail Vehicle Engineering Project Summary

March 2013

Preparation of Engineering Technical Specifications	Tracking #	Status
Red Line AC Gear Box (Rev. 0)	A650/TS/026	FB 12-0024 issued and schedule to close 01/11/2013
MBL Battery Set	P865/P2020/TS/069	Draft in review
Vital Relay Calibration P865/P2020	Sole Source	In Process by Procurement
Windows glass and rubber glazing specification	P865-P2020/TS-066	Released to Procurement for bid - In DEOD
Friction Brake Kit Less Air Compressor Overhaul	P2000/TS/035 Rev 0	Released to Procurement for bid - SS was signed - Going to December 13 Board for approval
A650 Battery Specification	A650/TS/39	Released to Procurement for bid - Hoppeke to deliver 1st article for testing and approval
Powered Axle Overhaul SOW	P865-P2020/TS/063 and 052	Released to Procurement for bid - In DEOD
Seat Insert	P865-P2020/TS/62	Released to Procurement - Awarded to Sardo - PO# SD259396 due end of December, 2013
Red Line DC Gear Box (Rev. 0)	P650/TS/040	Released to Procurement for bid - Dealing with Flender as OEM
Vandal Shield for all lines	A650-P865-P2000-P2550/TS/012	Released to Procurement- Contract awarded
Aux power supply equipment (APSE) - Static Inverter		
	P865-P2020/TS/065 Rev. 0 [2 Parts]	Released to Procurement for bid - In DEOD
Tire kit specification	P865-P2020/TS/064	Released to Procurement for bid
Red Line (Base Buy) DC Traction Motor		
	P650/TS/041	Released to Procurement - First article from HMI is required for vendor qualification and approval before releasing the contract.
MBL HVAC Compressor	P865/P2020/TS/067 Rev. 0	Released to Procurement for bid - Reply to Bid questions.
Head Sign LED	P2000/TS/xx	Draft in process
Chevron springs	P865/P2020/TS/068 Rev. 0	Released to Procurement for bid - IFB 13-0015 issued, Bid due on 01/23/2013
Filter-Fresh Air	P2550/TS/004	In review process
Filter-Return Air	P2550/TS/005	In review process
Chopper Air Filter	P865-P2020/TS/050	Draft in review
Motor Alternator Filter	P865-P2020/TS/051	Draft in review
Inverter Air Filter	A650/TS/036	Draft in review
Pantograph	P2550/TS/006	Draft in review
Tire kit specification	P2000/TS/018	Draft in review
General - All Lines		Status
Roadway Worker Protection		CPUC/Installing ProTran1 Device-P865/P2020/P2000 completed, A650/P2550 in installation
Fleet Failure Analysis		CH2M Hill - LTK
New Radios installed to replace old radios		Meeting 3/7/2012-Contract awarded, MBL and P2000 completed. A650 in installation process P2550 in prototype completed.
Bike Space		P2000/P2550/A650 Fleet modification completed.
St. Louis LRV		Testing flooring for fire rating - investigating computability.
Proposed Spread Spectrum Frequency Hopping technology for vehicle door control safety system all lines.		Consider Protran system (FCC15 passed) as the first prototype to try. Work in progress to consider system design, test and installation.
P2000 Overhaul Program		Status
Mapping mainline		Conducted mapping the entire line in 2 weeks for ATP/ATO/TWC
Master Controller - Bombardier Refurbish		Ongoing Program
RSS and EOSS Bundle Cables/Connectors - Glenair		In Progress
CCH possible replacement (Focon)		Send information to Focon
TWC Calibration procedure.		TWC calibration procedures completed. Issued and Training completed at Division.
Speed Sensors		Testing new speed sensors from Smith System
Friction Brake failure investigation		Metro technical team with Wabtec (OEM) ongoing investigation.
Coupler Overhaul		In Progress
Bombardier Engineering Team visit and provide OEM support on Speed Sensor, EMI, MC,...and other issues		In Progress
Prototype "smart" automatic sanding circuit on P2000 vehicle.		In Progress
Install and test Smith-System Speed Sensors		In Progress
P865/P2020 Program		Status
Remove the remotely reset CB1 Breaker		Fleet modification completed.
"G" force measurement on Transponder installed on P865/P2020		H&K installed "G" sensor on transponder and collected data for analysis - 03/08/12. New carbody mounted bracket were tested and completed fleet modification. New antennas are in installation progress.
Under seat - No motion relays		ABB Prototype installed on 07/24/12 for one month test period. Test was successful. In process of procuring kits.
Replace air compressor DC motor with AC motor		Knorr prototype on order - Due in October 2012 - Modifying 1 unit is in process by Knorr
ATP Antenna investigation		Survey 100% of the fleet - Recommend to replace all ATP antenna. Installed 2 each, new antennas on car 129 and 160. Data on 160 loop test was too high for series old new installation. ALSTOM did not release any antenna schematic or testing procedures.
Cardan Failure Investigation		Lab testing failed components and evaluate those in service - Kar's Lab

Rail Vehicle Engineering Project Summary (cont'd)

March 2013

A650 Overhaul Program		Status
Investigate car 505/506		Satatic test completed, dynamic yard test completed, mainline dynamic test scheduled the week of 12/10.
HPT Upgrade		Wabtec Proposal received. NTP issued 08/08/12. .One car set prototype in testing
ABI New Traction Motor Mount		ABI for Fleet Modification in progress. A total of seventy seven (88) trucks were completed.
Friction Brake Kit Overhaul		Overhaul program in place - Wabtec (30 Base cars were added and approved)
Ribbed Rubber Flooring PRF		Dealing with OEM - No bids received from others. Proceeding with PRF.
Door Operator Gearbox and Rollers Overhaul		In Progress - Buying kits from Vapor Stone to overhaul GB and motor in house.
H-4 electronic units		Unit upgrade - Fleet issues (Wabtec) to provide new unit proposal.
Base Buy DC fleet investigation		LJ-CH2M and engineering addressing PECE testing, Capacitors replacement, and modifying A17-A22-A23 boards. Field power supply calibration completed.
HVAC Evaporator AC motor/Inverter		Testing 1st article from Vapor Stone on one car.
Traction motor Blower- AC motor/Inverter		Testing 1st article from ATS on one car.
12 GTO (6 GTO+ and 6 GTO-) will be bench tested and installed on the train for dynamic testing.		In progress
PSI 3-day visit from 2/8-2/10/2013 regarding GE Tester performance to compare with PSI Tester.		In Progress
Installed GTO for dynamic main line testing		In Progress
LJKeiger's work continues on base-buy PECE system.		In Progress
LJKeiger's work finished on base-buy PECE system.		LJ, CH2M, Instruction, and engineering addressing A22 board modifications. LJ confirmed in the meeting that his 2 mods on this module should be removed. No more modifications are used on this module.
P2550		Status
Vehicle Acceptance		Fifty cars have been final accepted.
3P Flip Up Seat Finger Guard		Submitted SS to Procurement - Testori - 1st prototype received and requires modification.
Find alternative Vendor for Reverse Engineer PCB Boards P2550		In Progress
Compressor Desiccant Material		Prototype Canistor fitting manufactured, to be fitted on 04/02/13
Rubber Boots (High Voltage)		In Progress - Vulcanite. Bought from OEM through A&E Telecom.
Cyclope light and Destination Sign Glass		In Progress - NASG
Ground Brush Schunk (Lamellar Seal failure investigation)		Awaiting ABI/Schunk final update.
HVAC investigation		Water drain and smoking filter issues - Prototype being manufactured by Metros CMF. 1st prototype (final run will be of a lighter gauge SS) installed and TB written.
Lateral shock absorber		Investigating the failure of the resilient bushing. AB suggested remedial work reviewed. AB asked to provide information on compliance testing of resilient pin.
EM/EMC on AM Broadband (540KHz-1610KHz)		Research on instrumentation that can capture harmonics up to AM Broadband.
TWC Testing		Investigate TWC performance issue on B end of Vehicle. LTK to issue final report of findings to date.
Expo		Status
P2000 Couple/un-couple issues		Investigation completed - Test was successful - Fleet modification in process.
Mapping entire MBL and Expo line		Mapped entire MBL and Expo line ATP/ATO/Line voltage/ track signals.
Junction of Blue line and Expo line Testing - ATP		Testing indicated signal track problem at Culver City. Wayside are recertify track circuits. Testing completed on 10/18/12 indicated track circuit installation problem. GE investigating.
Loss of Cab signal, speed code 45 mph. Support GE, B&C, Wayside to resolve problems at La Cienega Station Expo line		In Progress to follow up. Update Project: GE replaced New Impedance Bond and verify that 90% of Blue line had been resolved. Repair tested on 03/06/13 - failed test. No flips at 35 MPH however flips at 45 MPH. Report written Expo test report findings 030613
35 Cab Flips @ Culver City Platform and La Cienega Interlocking		Coordinate with Wayside to resolve the problems. GE vendor get involved to resolve a system design problem on E2C. (diode vs. no diode) Latest updated from BNC: No Diode for EXPO. Awaiting GE&BNC completion to finalize this issue. Repair tested on 03/06/13 - failed test. No flips at 35 MPH however flips at 45 MPH. Report written Expo test report findings 030613.
45mph Loss of Cab @ Culver City Platform		B&C installed new software and readjust the code Track CKT but it did not resolve the problem. Engineering supported the effort by providing the 45mph chart recorder at the site. We also provided the 45mph speed code charted from the Gold Line to Michael Harris-Grifford for further analysis.
Support B&C by testing car on La Cienega		B&C Engineer and Wayside will be onsite to adjust cab signals.



Metro

P2550 Vehicle Acceptance Program

March 2013

Vehicle Status Update:

- Project staff working with AB to close out open items including deliverable documentation.
- AB performing ATP-by pass switch modification. All 50 cars completed.
- AB performing Door system improvement modification. All 50 cars completed.

Engineering Activities Update:

- Event recorder: 44 cars are completed, warranty parts needed for remaining 6 cars. The final training schedule for the event recorder has been set for April.
- ATP/TWC Configuration: Vendor testing for issues with TWC change order. A-STS to continue with resolving issues and perform qualification of the system in April.
- Engineering issues regarding warranty items are being addressed.

Project Management:

- Contract spares continue to be delivered to Metro and most parts needed for day-to-day maintenance have been received. Critical parts needed for heavy repairs are beginning to arrive including traction motors.
- Director level project meeting on technical and commercial items held March 13.
- Daily and bi-weekly meetings are scheduled with contractor management to address project issues.

QA-Warranty Program Projects Summary

March 2013

QA-WARRANTY ACTIVITIES:

- On-Going, P2550 parts tracking: Contract Spares, Capital Spares, Metro Loaned Parts status to ABI.
- On-Going, Division Warranty Parts Claims Processing.
- P2550 Fleet High Speed Coupling failure investigation (Action pending ABI).
- P2550 Shock Absorber fleet failure declared, ABI will replace 336 lateral shock absorbers under warranty conditions.
- P2550 (Lamellar Seal) Truck Resilient Pin Bushing fleet failure declared (Action pending ABI).
- A650 Base Buy & Option Car Fleet Warranty Truck Frame Mod Campaign (54 of 220 Trucks modified to date). MRL Warranty Cost Avoidance savings accrued to date \$810,000.
- On-Going, Management's Special Interest Phase-2 Supplemental Inspections, MBL & MGL P2000 Fleet (7 of 52 cars completed).
- QA PMI Audits, Spot Checks, Surprise/Unannounced Audits performed (6).
- RFS FAI's or equipment inspection/failure investigations (4).
- On-Going Warranty-QA interest oversight & tracking: Overhauls/Mod Programs, (A650/P2000/P2020/865/P2550) Propulsion System, Master Controllers, Capacitor Banks, Air Compressors, Aux Power, Couplers, Gearboxes, Articulation Diaphragms, Friction Brakes, HPT's, Brake Resistor Grids, T/M's, MA's, HVAC, Doors, A/C Motors – (Blowers & Evaporators).

RFS Instruction Department Activities

March 2013

Training classes completed during the month of March 2013

Description	Course Hours	Student Count	Training Hours
<u>Blue & Expo Line Training - (P865/2020 & P2000 LRV):</u>			
RFS SIEMENS 2000 VEHICLE SYSTEMS	32	9	288
Total Blue Line Training (Hours):			288
<u>Red Line Training (Breda A650 HRV):</u>			
RFS BREDA 650 PROPULSION ABB	80	7	560
Total Red Line Training (Hours):			560
<u>Green Line Training (P2000 LRVs):</u>			
RFS SIEMENS MAINLINE DUTY, DEAD TOW AND VEHICLE REC	16	8	128
Total Green Line Training (Hours):			128
<u>Gold Line Training (P2550 LRVs):</u>			
RFS ANSALDOBREDA 2550 PROPULSION	80	2	160
Total Gold Line Training (Hours):			160
<u>Total RFS Instruction for the month of March 2013 (Hours):</u>			<u>1,136</u>

Other Instruction Activities

RFS SIEMENS MAINLINE DUTY, DEAD TOW AND VEHICLE RECOVERY (HANDS ON) Preparation	40
P2000 Vehicle Course Preparation	360
A650 & P2550 Vehicle Course Preparation	64

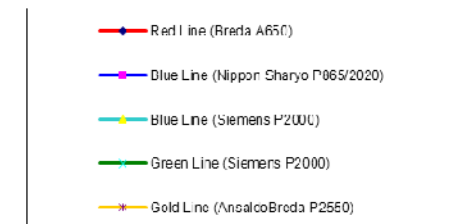
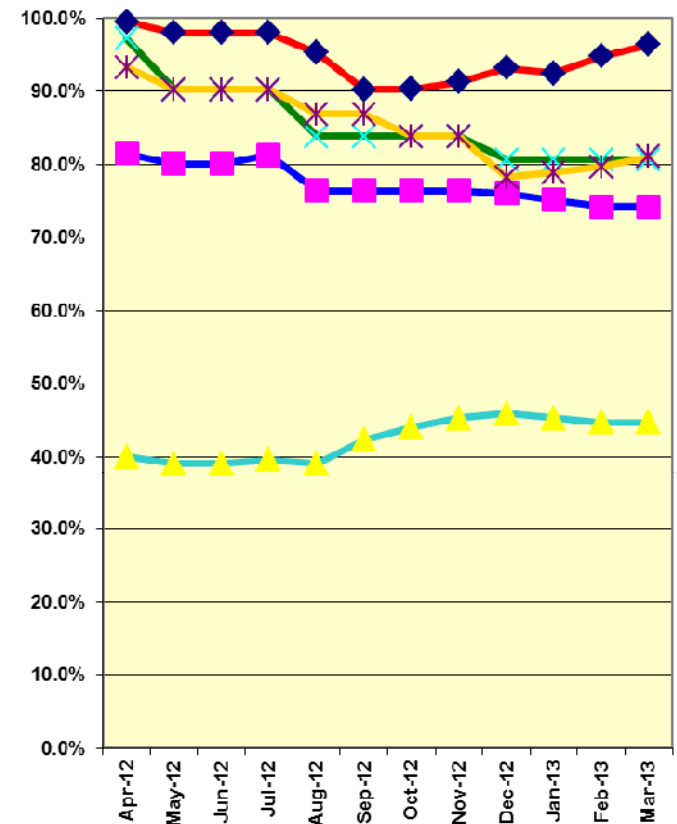
Total Other Instruction Activities **464.0**

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

Percentage of core vehicle training complete: **74.2%** **96.4%** **80.6%** **81.0%**
Siemens P2000 training complete: **44.7%** **N/A** **N/A** **N/A**

Average Specialist Rail Experience Level in Years: **11.2** **10.3** **9.3** **9.4**

Core Training Completed



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



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