

# Rail Fleet Services Monthly Report October 2008



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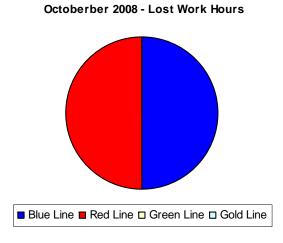
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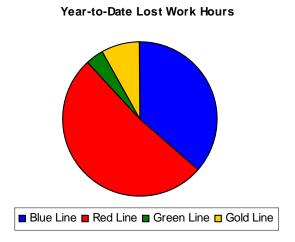


# Industrial Injuries – Lost Work Hours October 2008

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Year to Date
Blue Line	160	133	16	0	80	48	160	112	152	240	320	352	1,773
Red Line	152	0	0	184	80	48	368	344	344	392	264	352	2,528
Green Line	0	0	160	24	0	0	0	0	0	0	0	0	184
Gold Line	160	176	64	0	0	0	0	0	0	0	0	0	400
Totals	472	309	240	208	160	96	528	456	496	632	584	704	4,885

	Emplo	oyees	October 2008 Lost Work Hours							
	Assigned	Active	Service Attendant	Maint. Specialist	October 2008 Total Hours					
Blue Line	111	108	168	184	352					
Red Line	109	102	352	0	352					
Green Line	47	47	0	0	0					
Gold Line	46	45	0	0	0					
Totals	314	302	520 184 704							
To	otal Lost Worl	k Hours for	12-months	= 4,885 hou	rs					







# Rail Vehicle Accidents & Major Incidents October 2008

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Totals
Blue Line	\$4,661	\$4,489	\$8,500	\$497	\$4,235	\$1,789	\$2,473	\$1,412	\$14,603	\$7,308	\$55,579	\$1,672	\$107,218
Red Line	\$203	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	\$274	<b>\$0</b>	<b>\$0</b>	\$418	\$0	\$3,127	<b>\$0</b>	<b>\$0</b>	\$4,022
<b>Green Line</b>	\$6,036	\$0	\$0	\$289	\$0	\$0	\$0	\$0	\$0	\$0	\$15,758	\$0	\$22,083
<b>Gold Line</b>	<b>\$0</b>	\$326	\$340	\$18,388	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	\$3,504	<b>\$0</b>	<b>\$0</b>	\$22,558
Totals	\$10,900	\$4,815	\$8,840	\$19,174	\$4,509	\$1,789	\$2,473	\$1,830	\$14,603	\$13,939	\$71,337	\$1,672	\$155,881

	Rail Vehicle Acc	cident Costs - October, 2008	
2008	Problem code	Incident Description	Cost
October 4	Train vs. Pedestrian	Train #2 T-136 reports alleged 10-72 at Grand Station Northbound on track #1. Car #(127)-141-106	<b>\$0</b>
October 16	Train vs. Others	Train vs. Wheelchair. Operator clipped WC patron's backpack. T-28 Train #13 LRV (137B) 152 160 Wardlow Ped Xing, Track #1, northbound	\$189
October 19	Train vs. Auto	T-265, train 1, 10-73 Train vs. "hit & run auto" at Long Beach and 10th	\$584
October 24	Train vs. Other	Right windshield cracked. T-132 north of Florence grade crossing, track 1 Car (102A)-117-157 - Operator error - ran through a down gate.	\$899
	Blue Line To	otal Repair Cost	\$1,672
	No accidents for Re	ed, Green & Gold Lines	

The monthly accident charges listed represent only the expenses incurred in that particular month and are not a total repair of an individual accident.



# Service Delivery – AM/PM Pull-Outs October 2008

#### Cars Available for AM/PM Pull-Outs

#### Blue Line – Fleet Size 69 cars

Weekday pull-out: 60 carsWeekend pull-out: 36 cars

- Monthly Mileage: 424,466 miles

#### Red Line - Fleet Size 104 cars

Weekday pull-out: 70 carsWeekend pull-out: 48 cars

- Monthly Mileage: 569,212 miles

#### **Green Line - Fleet Size 28 cars**

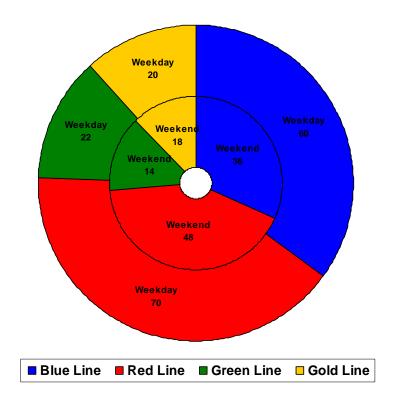
Weekday pull-out: 22 carsWeekend pull-out: 14 cars

- Monthly Mileage: 237,068 miles

#### **Gold Line – Fleet Size 24 cars**

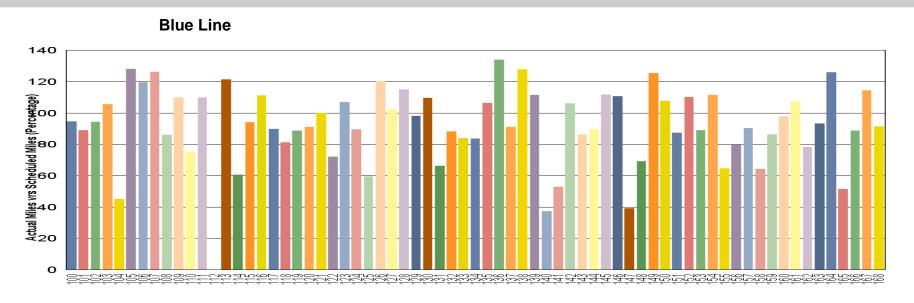
Weekday pull-out: 20 carsWeekend pull-out: 18 cars

Monthly Mileage: 154,222 miles





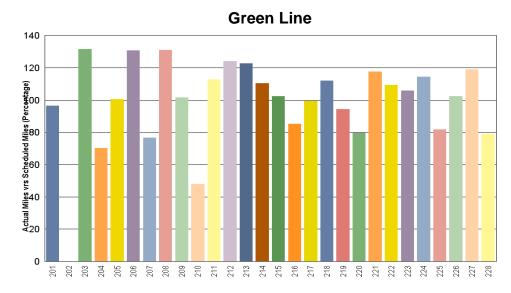
# VEHICLE UTILIZATION October 1, 2008 to October 31, 2008



Blue Line - Car 112 is out of service for repair due to an accident on 9-19-08 (Bus vs. train).

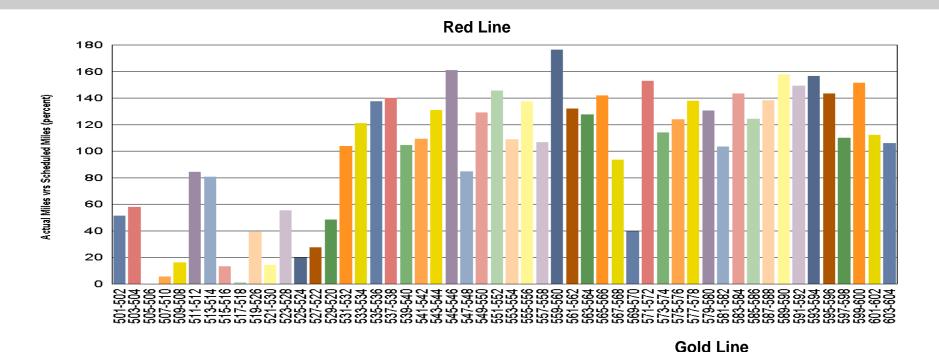
Green Line - Car 202 is out of service for paint repair and rust damage repair around windows.

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





## VEHICLE UTILIZATION October 1, 2008 to October 31, 2008



140

Red Line - The original 30 Base Buy cars are not being used to their fullest potential so the remaining Option Buy cars are forced to pick up the slack. Car 569-570 is experiencing complicated ATP problems.

Gold Line - Car 243 is in Sacramento having its fire damage repaired and the AnsaldoBreda cars are having some teething problems.

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

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# Mean Miles Between Failures (Major) October 2008

#### **Major Failures**

Blue Line: 17,686 miles (24 Major Failures)

Red Line: 35,576 miles (16 Major Failures)

**Green Line: 13,170 miles (18 Major Failures)** 

Gold Line: 15,422 miles (10 Major Failures)

# 40,000 35,000 25,000 15,000 10,000 5,000 8 Blue Line Red Line Green Line Gold Line

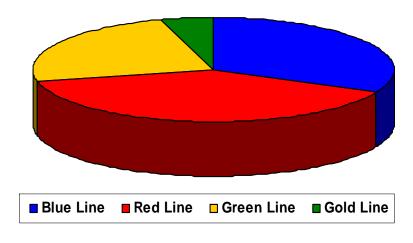
#### **Repeat Failures**

Blue Line: 27 Repeat Failures

Red Line: 33 Repeat Failures

**Green Line: 20 Repeat Failures** 

Gold Line: 4 Repeat Failures



**Major Failure**: When a train does not complete its scheduled run or is more than 5 minutes late of its scheduled arrival time.



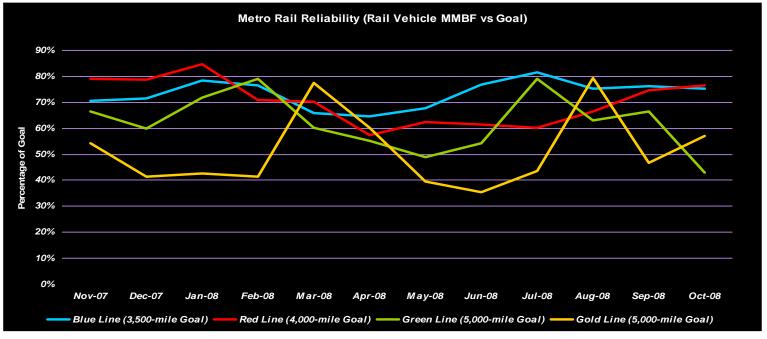
# Repeater Car Details October 2008

	Blue	e Line	Red	Line	Gree	n Line	Gold	d Line
System		No. of		No. of		No. of		No. of
-	Car #	Repeats	Car #	Repeats	Car #	Repeats	Car #	Repeats
Announcements	159	1						
ATO					203	1		
ATP	101	1	547	1				
	141	4	<b>570</b>	3				
	157	1	<b>596</b>	2				
ATP (Overspeed)			569	1				
Auxiliary Power			516	1				
-			<b>520</b>	1				
Berthing			566	1				
Doors	100	1	542	1			301	2
	104	1	575	4				
	148	4						
	153	2						
	159	1						
Friction Brakes	114	1	581	2			711	1
	118	2						
	155	1						
HSCB		1 1	508	1				
			520	1				
HVAC			522	1	207	1	229	1
			<b>550</b>	1				
			<b>573</b>	1				
			<b>576</b>	2				
Lighting	159	1						
Low Air Pressure					219	1		
Propulsion/Dynamic Brake	134	1	519	2	207	1		
	147	1	520	2	210	5		
	153	1	525	1	211	1		
			530	1	217	2		
					218	1		
					219	1		
					221	3		
Other		1	527	1				
TICU		1	547	1				
			565	1				
PA/Intercom		1		1	208	1		
Radio	105	1		1				1
	128	2						
Trucks/Wheels/Flats		1		1	204	1		
					228	1		
TOTALS		27	;	33	2	20		4



# Metro Rail Reliability October 2008

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
Blue Line Rail Vehicle Incidents	161	159	147	143	176	178	173	149	148	156	151	161
Blue Line Monthly Mileage	396,981	398,168	402,556	382,656	406,275	401,881	410,888	400,058	421,632	411,301	403,361	424,466
Blue Line MMBF	2,466	2,504	2,738	2,676	2,308	2,258	2,375	2,685	2,849	2,637	2,671	2,636
Blue Line (3,500-mile Goal)	70%	<b>72</b> %	<b>78</b> %	76%	66%	<b>65</b> %	68%	77%	81%	75%	76%	<b>75</b> %
Red Line Rail Vehicle Incidents	163	166	158	175	192	228	212	209	221	199	182	186
Red Line Monthly Mileage	515,266	521,889	535,220	496,907	539,274	524,452	528,698	513,141	532,394	529,268	544,302	569,212
Red/Purple Line MMBF	3,161	3,144	3,387	2,839	2,809	2,300	2,494	2,455	2,409	2,660	2,991	3,060
Red Line (4,000-mile Goal)	79%	79%	85%	71%	70%	58%	<b>62</b> %	61%	60%	66%	75%	77%
Green Line Rail Vehicle Incidents	64	72	62	53	73	79	90	78	55	68	68	110
Green Line Monthly Mileage	212,749	215,515	223,068	209,648	219,499	218,303	219,499	211,045	217,035	214,560	226,339	237,068
Green Line MMBF	3,324	2,993	3,598	3,956	3,007	2,763	2,439	2,706	3,946	3,155	3,329	2,155
Green Line (5,000-mile Goal)	66%	60%	72%	79%	60%	55%	49%	54%	79%	63%	67%	43%
Gold Line Rail Vehicle Incidents	50	69	73	69	39	49	76	83	70	38	63	54
Gold Line Monthly Mileage	135,554	142,976	155,907	143,185	151,044	147,591	149,693	146,598	152,075	150,466	147,380	154,222
Gold Line MMBF	2,711	2,072	2,136	2,075	3,873	3,012	1,970	1,766	2,173	3,960	2,339	2,856
Gold Line (5,000-mile Goal)	54%	41%	43%	42%	77%	60%	39%	35%	43%	79%	47%	57%



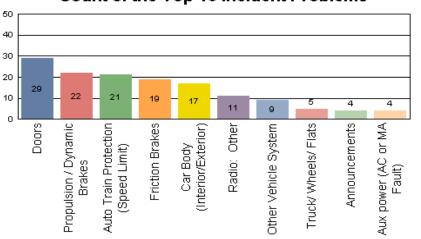


Blue & Red/Purple Lines Goal are lower due to age of vehicles

#### **Incident Problems**

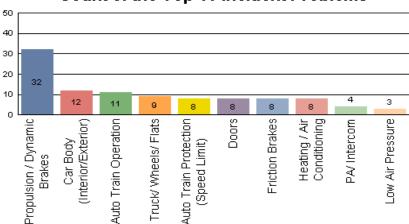
#### Blue Line - October 2008

#### Count of the Top 10 Incident Problems



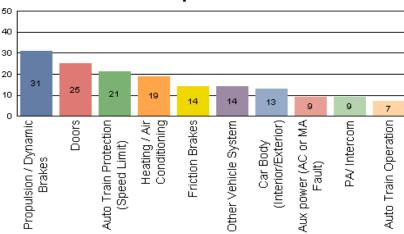
#### **Green Line - October 2008**

#### Count of the Top 10 Incident Problems



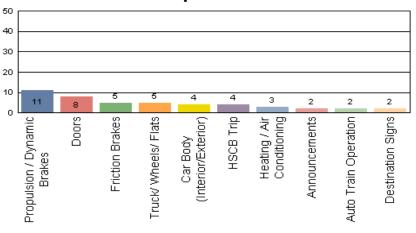
#### Red Line - October 2008

#### Count of the Top 10 Incident Problems



#### Gold Line - October 2008

#### **Count of the Top 10 Incident Problems**



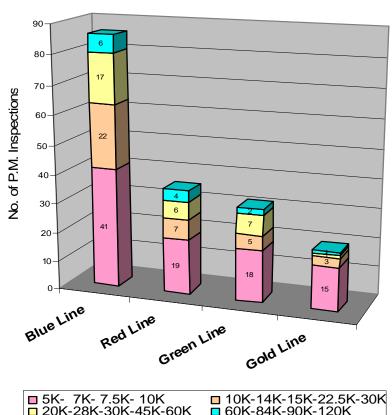


#### **Preventative Maintenance Compliance** October 2008

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
Blue Line	100%	100%	100%	100%	100%	100%	100%	97%	100%	100%	96%	100%
Red Line	100%	99%	100%	100%	100%	100%	100%	80%	100%	100%	100%	100%
Green Line	100%	100%	95%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Gold Line	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

#### October 2008 Preventative Maintenance Inspections

		10K-	20K-			
No. of	5K-	14K-	28K-	60K-		Percent
P.M.	7K-	15K-	30K-	84K-	Totals	Compli
Inspections	7.5K-	22.5K-	45K-	90K-		ance
	10K	30K	60K	120K		
Blue Line	41	22	17	6	86	100%
Red Line	19	7	6	4	36	100%
Green Line	18	5	7	2	32	100%
Gold Line	15	3	1	1	20	100%
Totals:	93	37	31	13	174	100%



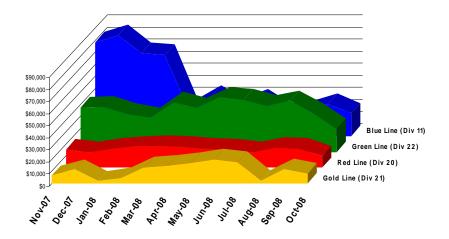
■ 5K- 7K- 7.5K- 10K ■ 20K-28K-30K-45K-60K □ 10K-14K-15K-22.5K-30K □ 60K-84K-90K-120K



#### Vandalism & Graffiti Report October 2008

	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Year-to-Date
	1404-07	Dec-07	Jai1-00	Len-00	IVIAI-UO	Api-00	Way-00	Juli-00	Jui-00	Aug-00	3eh-00	OCI-08	Tour to Date
Blue Line	<b>\$78,067</b>	\$84,209	\$69,383	\$67,624	\$27,270	\$33,717	\$22,258	\$30,483	<b>\$19,055</b>	\$21,297	\$27,169	\$19,172	\$499,704
Green Line	\$37,022	\$37,495	\$31,632	\$28,564	\$41,259	\$36,670	\$45,594	\$43,424	\$38,306	\$42,483	\$31,715	\$19,070	\$433,234
Red Line	\$15,156	\$13,231	\$16,100	\$17,874	\$18,388	\$17,477	\$15,881	\$15,127	\$13,153	\$16,728	\$15,743	\$9,744	\$184,602
Gold Line	\$6,416	\$11,638	\$2,030	\$4,715	\$13,544	\$14,864	\$17,174	\$19,888	\$17,978	\$2,372	\$11,825	\$8,344	\$130,788
Totals	\$136,661	\$146,573	\$119,145	\$118,777	\$100,461	\$102,728	\$100,907	\$108,922	\$88,492	\$82,880	\$86,452	\$56,330	\$1,248,328

October 2008	October 2008 Vandalism & Graffiti - All Rail												
	Qty	Labor	Materials	Totals									
Windows replaced	23	\$2,142	\$3,817	\$ 5,959									
Vandal Shields	403	\$9,246	\$6,640	\$ 15,886									
Vandal Shields - Other	31	\$488	\$206	\$694									
Seats Cleaned	9,352	\$22,526	\$ -	\$ 22,526									
Seats Replaced	83	\$2,615	\$3,955	\$ 6,570									
Ext/Int Repairs	936	\$3,431		\$ 3,431									
Labor	16	\$1,008	\$256	\$ 1,264									
Totals for October 2008		\$41,456	\$14,874	\$ 56,330									





# Vandalism & Graffiti Pictures October 2008



A

В

C



- A Green Line
- B Blue Line
- C Red Line





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# Material and Labor Costs October 2008

Material Costs	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
Blue Line	\$189K	\$200K	\$307K	\$123K	\$174K	\$181K	\$197K	\$185K	\$157K	\$157K	\$230K	\$199K
Red Line	\$212K	\$283K	\$311K	\$217K	\$261K	\$349K	\$ 99K	\$292K	\$314K	\$240K	\$225K	\$232K
Green Line	\$185K	\$132K	\$169K	\$254K	\$225K	\$235K	\$166K	\$142K	\$194K	\$133K	\$196K	\$233K
Gold Line	\$19K	\$154K	\$195K	\$107K	\$101K	\$260K	\$110K	\$88K	\$85K	\$118K	\$123K	\$132K
Totals	\$559K	\$768K	\$982K	\$701K	\$761K	\$1,052K	\$572K	\$707K	\$750K	\$648K	\$774K	\$796K

#### **Material Costs**

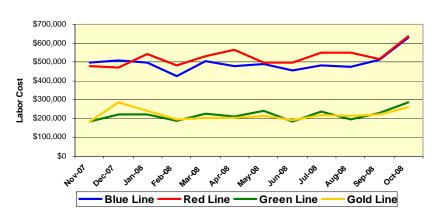
#### \$400,000 \$350,000 \$250,000 \$200,000 \$150,000 \$50,000 \$50,000

Green Line

Gold Line

Red Line -

#### **Labor Costs**



Labor Costs	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08
Blue Line	\$496K	\$508K	\$498K	\$426K	\$505K	\$479K	\$487K	\$454K	\$483K	\$473K	\$513K	\$628K
Red Line	\$479K	\$471K	\$542K	\$481K	\$530K	\$563K	\$498K	\$496K	\$549K	\$548K	\$516K	\$637K
Green Line	\$185K	\$220K	\$223K	\$190K	\$225K	\$211K	\$239K	\$184K	\$237K	\$196K	\$229K	\$287K
Gold Line	\$186K	\$235K	\$240K	\$196K	\$222K	\$202K	\$216K	\$192K	\$217K	\$214K	\$220K	\$260K
Totals	\$1,346K	\$1,484K	\$1,503K	\$1,293K	\$1,482K	\$1,454K	\$1,440K	\$1,326K	\$1,486K	\$1,431K	\$1,478K	\$1,812K

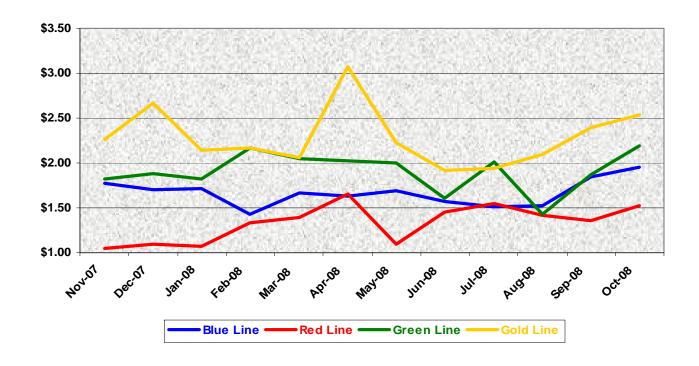


Blue Line

Material Cost

#### Cost Per Mile October 2008

Cost per mile:	Nov-07	Dec-07	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Average
Blue Line	\$1.78	\$1.70	\$1.71	\$1.43	\$1.67	\$1.63	\$1.69	\$1.58	\$1.51	\$1.52	\$1.84	\$1.95	\$1.66
Red Line	\$1.05	\$1.09	\$1.07	\$1.33	\$1.39	\$1.65	\$1.10	\$1.45	\$1.55	\$1.42	\$1.36	\$1.53	\$1.31
Green Line	\$1.82	\$1.88	\$1.83	\$2.17	\$2.05	\$2.03	\$2.00	\$1.61	\$2.01	\$1.43	\$1.87	\$2.19	\$1.87
Gold Line	\$2.26	\$2.67	\$2.14	\$2.16	\$2.05	\$3.07	\$2.23	\$1.91	\$1.94	\$2.10	\$2.40	\$2.54	\$2.27



No facility costs are included



# Capital Projects October 2008

Division Number/ Location	Project Number/Name	Description	LOP Budget	Amount Spent	Amount Remaining	Scheduled Completion Date	New Projected Completion Date	Comments/Reason
Division 11 Blue Line	204009 - Improvements	Main Shop & Car Wash Extension	\$ 17,395,500	\$16,871,812	\$ 523,688	1/31/2008 Original SOW complete	add-on work	MBL RFS is building a gate alarm prototype (per TP design). If prototype is successful the remaining 41 alarms will be made by MBL RFS.
Division 21 Gold Line	204017 - Improvements	Historic Aqueduct	\$ 4,500,000	\$1,707,382	\$ 2,792,618	05/23/08	11/15/08	Awaiting National Historic Registry response. Wilbur Babb is coordinating. Should close out about 11/15/08.
Division 22 Green Line	204037 - Improvements Ph 2	Wheel True Pit & Machine. Crossover Train Control	\$ 4,895,000	\$3,551,802	\$ 1,343,198	01/07/09	01/07/09	WTM Pit has gone to closeout; final invoice & retention has been paid. WTM has been accepted. Parts inventory was completed 10/13/08. A new metal shavings hopper has been delivered by Simmons.
Division 20 Red Line	204047 - Car Wash/CCP	Car Wash & Cleaning Platform	\$ 15,400,000	\$12,842,909	\$ 2,557,091	03/03/09	05/17/10	This CP has been acquired by Girish Roy & MTA Construction.
Div ision 21 Gold Line	204053 - Phase 2 Improvements	Body Shop	\$ 5,000,000	\$1,703,125	\$ 3,296,875	02/10/11	02/10/11	Eastside Extension group is coordinating this CP. Permits & floor plans are in progress.
Division 20 Red Line	204054 - Additional Hoists	Additional two double-pair vehicle hoists	\$ 4,250,000		\$ 1,767,317	06/30/08	05/12/09	Contractor completed excavating 2 pits on 8/22/08. 5 to 6 months until hoists are delivered to MRL shop.
Division 22 Green Line	204059 - Spray Paint Booth	Small Spray Paint Booth	\$ 324,476	\$213,490	\$ 110,986	05/16/08	10/08/09	This CP, per request of the new MGL manager, will be rescoped to enlarge & relocate the paint shop structure.



# Rail Fleet Services Instruction October 2008

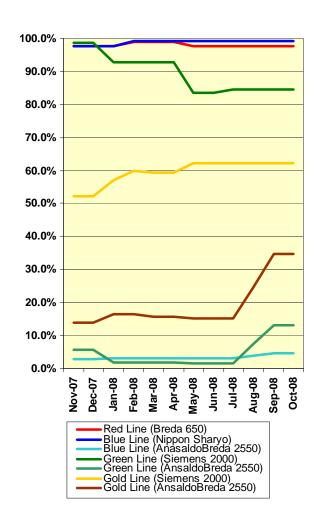
#### **Training classes completed during the month of October 2008**

				Course	Student	Training	
Description	Status	Start	End	Hours	Count	Hours	
Blue Line Training (Nippon Sharyo P865/P2020 LRV):							
MOP RECORDS MANAGEMENT	Complete	10/23/2008	10/23/2008	2	3	6	
BACK SAFTERY (Video)	Complete	10/17/2008	10/17/2008	2	17	34	
ETD INTRODUCTION TO HUMAN RESOURCES POLICIES	Complete	10/30/2008	10/30/2008	2	1	2	
WRITING TECHNICAL REPORTS	Complete	10/22/2008	10/22/2008	3	1	3	
MOP VIOLENCE IN THE WORKPLACE	Complete	10/30/2008	10/30/2008	4	1	4	
MOP SEXUAL HARASSMENT PREVENTION AND TITLE VII	Complete	10/9/2008	10/9/2008	2	1	2	
		Tota	al Blue Line	Training	(Hours):	51	
Red Line Training (Breda A650 HRV):							
ETD BUSINESS WRITING SKILLS	Complete	10/29/2008	10/29/2008	3	2	6	
NEW SERIVCE ATTENDENT TRAINING	Complete	10/3/2008	10/8/2008	12	1	12	
EXCEL - 2003 BEGINNER	Complete	10/23/2008	10/23/2008	6	1	6	
WRITING TECHNICAL REPORTS	Complete	10/22/2008	10/22/2008	3	1	3	
PRE-SUPERVISORY TRAINING	Complete	10/8/2008	10/9/2008	14	1	14	
		Tot	al Red Line	Training	41		
Green Line Training (Siemens P2000 LRVs):							
NEW SERIVCE ATTENDENT TRAINING	Complete	10/3/2008	10/8/2008	16	1	16	
FORKLIFT, OSHA REFRESHER	Complete	10/24/2008	10/24/2008	2	6	12	
DIRECT DEPOSIT SELF SERVICE TRAINING	Complete	10/23/2008	10/23/2008	0.75	2	1.5	
		Total	Total Green Line Training (Hours):				
Gold Line Training (P2550 & P2000 LRVs):				•	. ,		
MOP VIOLENCE IN THE WORKPLACE	Complete	10/30/2008	10/30/2008	4	2	8	
NEW SERIVCE ATTENDENT TRAINING	Complete	10/3/2008	10/10/2008	12	1	12	
	Total Gold Line Training (Hours):						

Total Rail Fleet Services Instruction for the month of October 2008 (Hours): 141.5

<b>Core Vehicle Training Completed:</b>	<b>BLUE</b>	<u>RED</u>	<u>GREEN</u>	<u>GOLD</u>
Percentage of core vehicle training complete:	99.2%	97.6%	84.7%	62.3%
AnsaldoBreda 2550 Training Completed:	4.6%	N/A	13.1%	34.8%
Average Specialist Rail Experience Level in Years:	9.9	8.2	7.2	6.9

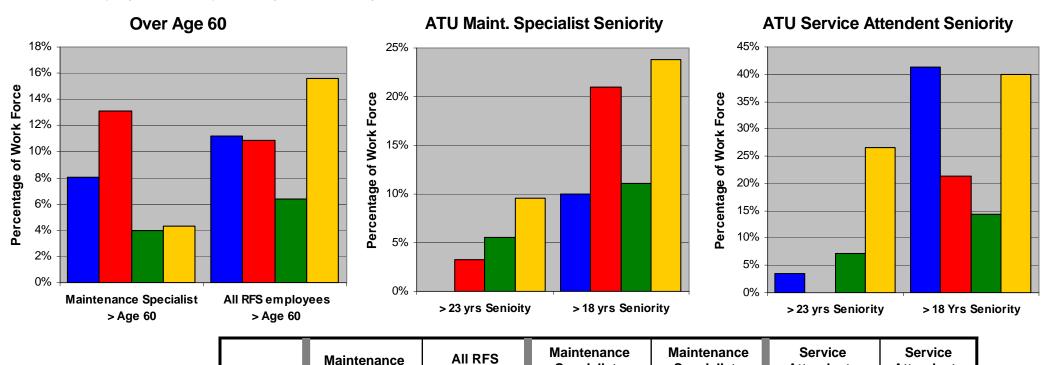
#### **Core Training Completed**





# The Retirement Rush (Metro's Ageing Work Force)

These charts show how many of Rail Fleet Services' employees are within five years of reaching age 65 (normal retirement). Of special interest is the Maintenance Specialist position because of their rail experience, training, education, and difficulty of replacement. Also shown is the ATU's 23 and out retirement program. Very few ATU employees work past 23 year Seniority.



Maintenance Specialist are the employees who repair Metro's Light and Heavy Vehicles



